## Series Compatible with Secondary Batteries 25Al- Sertes

## Copper (Cu)

 and Zinc (Zn) RestrictionsCompatible with dew points as low as


> Longer life
> due to use of grease compatible with low dew points

A wide range of products! Now with a greater number


57 models have been newly added. (For details, refer to the "INDEX" pages.)

Compatible with the various environments of each manufacturing process

SMC
P-E23-13

Products compatible with the environments of the secondary battery manufacturing process are available, contributing to the improvement of productivity and reduced defects.


## Series Compatible with Secondary Batteries 25A- Series

Applicable for use at $-70^{\circ} \mathrm{C}$

Improved performance in environments with low dew points

- Uses grease compatible with low dew points


## Double the durability

Durability comparison (Air cylinder)


## Response time reduced by half

Comparison of cylinder response times after being pressurized and stored


## Material Restrictions

The following materials are not used in order to reduce the number of defective products produced during the secondary battery manufacturing process:

- Metal materials whose main component is either copper or zinc are not used.
* Some of the aluminum alloy and aluminum die-cast materials contain traces of copper or zinc as an additive element. If a product with restrictions on the amounts of these additive elements is required, we can accommodate your needs via a special product. Please contact your local sales representative for further details.


## - Electrolytic nickel plating with a copper layer or zinc plating are not used.

* Electroless nickel plating is used.
- Parts of the piston rod, clevis pin, split pin, etc., of the cylinder are made of carbon steel with hard chrome plating. Therefore, as the processed parts aren't coated, an anti-rust oil coating is applied to these parts before shipment.
* Rust may be generated due to the operating environment. If the generation of rust is a problem, made-to-order options using stainless steel, etc., are available. Please contact your local sales representative for further details.
- The coils of solenoid valves, the circuit boards of electrical equipment, the motors of electric actuators, etc., use copper materials.
* Parts whose materials cannot be easily changed to alternative ones and parts whose functions would be compromised by changing to alternative materials use copper and/or zinc materials. Please contact your local sales representative for further details.


## Material

## Restrictions

Surface treatment

- Electrolytic nickel plating with a copper layer - Zinc plating
(Electroless nickel plating is used.)


Compact Cylinder 25A-CQ2 Series


* The auto switch magnet contains copper and/or zinc. (ø12)

Air Slide Table 25A-MXQ Series


Dual Rod Cylinder/Compact Type


* The auto switch magnet contains copper and/or zinc. ( $\varnothing 6, \varnothing 10, \varnothing 15)$


Compact Guide Cylinder 25A-MGPM Series


* The auto switch magnet contains copper and/or zinc. (ø12)


## Corrosion-resistant Air Slide Table (Made to Order: 25A-MXQ $\square-X 771$, 25A-MXS $\square-X 1949)$



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* Copper and zinc materials are used for the motors, cables, controllers/drivers.
* The motor magnet contains copper and/or zinc.



## Vacuum Regulator 25A-IRV Series



## Pilot Operated 2-Port Solenoid Valve

 25A-VXD Series

* A copper material is used for the solenoid coils and lead wires.




## Dustproof Products

High Durability Series Dust Resistant Cylinder CM2/CG1/MB/CQ2/MGP/MXQ-XC4 $\square$

- Up to 6 times more durable in dusty environments (-XC4A/-XC4B/-XC4C) Applicable powder particle size: 20 to $100 \mu \mathrm{~m}$
Suitable for environments with ceramic powder, toner powder, paper powder, and metallic powder
* Excludes weld spatter
- Can be selected according to the application

| Description | Applicable powder particle size | Structure (CQ2) | Durability |
| :---: | :---: | :---: | :---: |
| With 2 Luberetainers XC4A | 20 to $50 \mu \mathrm{~m}$ |  | Standard model |
| With heavy-duty scraper + Lube-retainer XC4B | 30 to $100 \mu \mathrm{~m}$ |  | Standard model |
| With heavy-duty scraper XC4C | 50 to $100 \mu \mathrm{~m}$ |  | Standard model |

MXQ-XC4A

- Lube-retainers are installed on the guide unit and rod cover. This prevents the entry of dust and foreign matter.

| Air Cylinder <br> CM2-XC4 $\square$ <br> $\varnothing 20$ to $\varnothing 40$ | Air Cylinder CG1-XC4 $\square$ <br> ø20 to ø100 | Air Cylinder <br> MB-XC4 $\square$ <br> ø32 to $\varnothing 100$ |  | Compact Cylinder $\text { CQ2-XC4 } \square$ <br> ø20 to ø63 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Compact Guide Cylinder MGP-XC4 $\square$ <br> $\varnothing 12$ to $\varnothing 100$ | Air Slide Table MXQ-XC4A <br> ø6 to $\varnothing 25$ |  |  |  |  |

## Explosion-proof Products

## * Not compatible with the secondary battery specifications

## Explosion-proof Solenoid Valves

## For Japan (TIIS certification)

- Intrinsically Safe Explosion-proof System 5-Port Solenoid Valve -51-SY5000/7000/9000 Series

```
Ex ia IIB T4
```

- Explosion-proof (Flameproof) 3/5-Port Solenoid Valve 50-VFE/VPE Series
d2G4, Ex d IIB T4


## For China (CCC certification)

- Intrinsically Safe Explosion-proof 5-Port Solenoid Valve 52-SY5000/7000/9000-X140 Series


## Ex ia IIC T4 to T6 Gb

- Explosion-proof (Flameproof) 3/5-Port Solenoid Valve 50-VFE/VPE-X140 Series

```
Ex d IIC T5/T6 Gb
ExtD A21 IP6X \(785^{\circ} \mathrm{C} / \mathrm{T} 100^{\circ} \mathrm{C}\)
```

For Taiwan (TS certification)

- Explosion-proof (Flameproof) 3/5-Port Solenoid Valve 50-VFE/VPE-X170 Series

Ex db IIC T5/T6 Gb Ex tb IIIC $1100^{\circ} \mathrm{C} / \mathrm{T}_{8} 5^{\circ} \mathrm{C} \mathrm{Db}$

## Secondary Battery Manufacturing Process

## Electrode Production Process



## (1) Mixing and kneading machine

The proper amount of raw materials for positive or negative electrodes are mixed to make electrode slurry.


## 2 Coating and rolling

Positive or negative electrode slurry is coated with a metallic foil made from aluminum, copper, etc.
The coated slurry is then compressed with rollers continuously to enhance the density of the electrode sheet.


## Cell Assembly Process

## 4. Winder (Winding)

The positive electrode sheet, negative electrode sheet, and separator sheets are laid on top of each other and wound to form a wound body.

Positive


## 4) Punching electrodes

The rolled positive and negative electrodes are punched according to the battery size.


## 5. Attaching tabs and an insulating plate and inserting into a case

Current collecting tabs and an insulating plate are bonded to the wound body.
It is then inserted into a case.


Bonding tabs and an insulating plate


Inserting into a case

## 5 Stacking (Layering)

Positive and negative electrodes are stacked alternately and accurately at high speed with a separator inserted between them.


Stacking positive and negative electrodes

## Inspection/Packaging Process



## 9. Packaging

Standard products
are applicable.
Connected multiple cells are enclosed in a metallic case, and terminals are attached to form a module.
Then, the connected multiple modules with a sensor and a controller are enclosed in a case to form a battery pack.


Pack

## 3) Slitting

The electrode sheet and separator are cut to the cell width.

## 6 Welding cell lid and pouring electrolytic solution

The electrode and lid are laser-welded, and then the entire periphery of the cell case and lid is welded. Electrolytic solution is poured into the cell.


Welding cell lid


Pouring electrolytic solution

## 6) Tab welding and lamination

Current collecting tabs are welded to the laminated body.
The laminated body is wrapped with armoring material.


## 7) Pre-charging and welding infusion plug

Pre-charging (formation charging) is performed to remove the gas generated in the initial charging process, and then the infusion plug is welded to seal the cell.


## 7) Pre-charging and sealing cell

Pre-charging (formation charging) is performed to remove the gas generated in the initial charging process, and then heat is applied to seal the cell.

Sealing cell


## 25A- Series Applicable Products

|  | Description | Series | Page |
| :---: | :---: | :---: | :---: |
|  | Air Management System | 25A-AMS/20/30/40/60 | 14-1 |
|  | 5-Port Solenoid Valve | 25A-JSY1000/3000 (Plug-in connector connecting base) | 15 |
|  |  | 25A-JSY1000/3000 (Non plug-in metal base) | 29 |
|  |  | 25A-SY5000/7000 (Plug-in connector connecting base) | 33 |
|  |  | 25A-SY5000/7000 (Single unit, Individual wiring) | 63 |
|  |  | 25A-VQ2000/4000 (Single unit, Plug-in unit) | 73 |
|  |  | 25A-SQ2000 (Plug-in type, Plug lead type) | 87 |
|  |  | 25A-VQZ1000 (Single unit, Plug lead) | 91 |
|  | Separate Type Double Check Block | 25A-VQ1000/2000-FPG | 95 |
|  | 3-Port Solenoid Valve | 25A-VP342/542/742 (Body ported) | 96 |
|  |  | 25A-VP344/544/744 (Base mounted) | 97 |
|  |  | 25A-VP500/700-X536, X538, X555 | 98 |
|  |  | 25A-VT317 | 99 |
|  |  | 25A-VG342 | 100 |
|  | 5-Port Air Operated Valve ${ }^{\circ}$ | 25A-SYA5000/7000 | 101 |
|  | 3-Port Air Operated Valve | 25A-SYJA500/700 | 102 |
|  | Finger Valve | 25A-VHK $\square$ A | 104 |
|  | Conforming to OSHA Standard Pressure Relief 3-Port Valve with Locking Holes | 25A-VHS (W)-D (Single action, Double action) | 105 |
|  |  | 25A-VHS (Single action) | 106 |
|  |  | 25A-VHS $\square 510$ (Double action) | 107 |
|  | Air Cylinder | 25A-CJP2 ( $\varnothing 4$ to $\varnothing 16$ ) | 108 |
|  |  | 25A-CJ2 ( $10 / \varnothing 16$ ) | 109 |
|  |  | 25A-CJ2K ( $\varnothing 10 / \varnothing 16$ ) | 110 |
|  |  | 25A-CBJ2 (End lock) ( 016 ) | 111 |
|  |  | 25A-CM2 ( $\varnothing 20$ to $\varnothing 40$ ) | 112 |
|  |  | 25A-CG1 ( $\varnothing 20$ to $\varnothing 100$ ) | 113 |
|  |  | 25A-CBG1 (End lock) ( $\varnothing 20$ to $\varnothing 63$ ) | 114 |
|  |  | 25A-MB ( $\varnothing 32$ to $\varnothing 100$ ) | 115 |
|  |  | 25A-CA2 ( $\varnothing 40$ to $\varnothing 100$ ) | 116 |
|  |  | 25A-CS2 ( $\varnothing 125$ to $\varnothing 160$ ) | 117 |
|  | Lock Cylinder anm | 25A-MWB ( $\varnothing 32$ to $\varnothing 100$ ) | 118 |
|  |  | 25A-MWB-UT ( $\varnothing 32$ to $\varnothing 100$ ) | 119 |
|  |  | 25A-CNS ( $\varnothing 125$ to $\varnothing 160$ ) | 119-1 |
|  | Mini Free Mount Cylinder | 25A-CUJ ( $\varnothing 6$ to ø20) | 120 |
|  | Free Mount Cylinder | 25A-CU (ø10 to $\varnothing 32$ ) | 122 |
|  |  | 25A-CUK (Non-rotating rod) ( $\varnothing 10$ to ø32) | 123 |



| 25A-CQS (ø12 to ø25) | 124 |
| :---: | :---: |
| 25A-CQSW (Double rod) (ø12 to ø25) | 125 |
| 25A-CQS $\square$ S (Anti-lateral load) (ø12 to ø25) | 126 |
| 25A-CQ2 (ø12 to ø100) | 127 |
| 25A-CQ2W (Double rod) (ø12 to ø100) | 128 |
| 25A-CQ2 (Large bore size) ( $\varnothing 125$ to $\varnothing 200$ ) | 129 |
| 25A-CQ2 (Long stroke) ( $\varnothing 32$ to $\varnothing 100$ ) | 130 |
| 25A-CQ2 $\square$ S (Anti-lateral load) ( $\varnothing 32$ to ø100) | 131 |
| 25A-CBQ2 (End lock) (ø20 to ø100) | 132 |
| 25A-MU (ø25 to ø63) | 133 |
| 25A-MY1B (ø16 to ø63) | 134 |
| 25A-MY1M (Slide bearing guide) (ø16 to ø63) | 135 |
| 25A-MY1C (Cam follower guide) (ø16 to ø63) | 136 |
| 25A-MY1H (Linear guide) ( $\varnothing 16$ to $\varnothing 40$ ) | 137 |
| 25A-MY2C (Cam follower guide) (ø16 to ø40) | 138 |
| 25A-MY2H/HT (Linear guide) (ø16 to $\varnothing 40$ ) | 139 |
| 25A-MY3A/B (ø16 to ø63) | 140 |
| 25A-MY3M (Slide bearing guide) (ø16 to ø63) | 141 |
| 25A-CY3B (ø6 to ø63) | 142 |
| 25A-CY3R (Direct mount type) ( $\varnothing 6$ to ø63) | 143 |
| 25A-MXH ( $\varnothing 6$ to $\varnothing 20$ ) | 144 |
| 25A-MXS (ø6 to ø25) | 145 |
| 25A-MXQ $\square \mathrm{A}$ (Double-ported type) (ø6 to ø25) | 146 |
| 25A-MXQ $\square$ (Low thrust with high rigidity type) ( $\varnothing 6$ to ø20) | 147 |
| 25A-MXQ $\square \mathrm{C}$ (Single side-ported type) (ø8/ø12) | 148 |
| 25A-MXQ $\square$ (Height interchangeable type) ( $\varnothing 6$ to $\varnothing 25$ ) | 149 |
| 25A-MXQ ( $\varnothing 6$ to $\varnothing 25$ ) | 150 |
| 25A-MXF ( $\varnothing 8$ to ø20) | 151 |
| 25A-MXW (ø8 to ø25) | 152 |
| 25A-MXP (ø6 to ø16) | 153 |
| 25A-MGJ (ø6/ø10) | 154 |
| 25A-MGP ( $\varnothing 12$ to $\varnothing 100$ ) | 155 |
| 25A-MGP (With air cushion/Slide bearing/Ball bushing bearing) ( $\varnothing 16$ to $\varnothing 100$ ) | 156 |
| 25A-MGPK (ø12 to ø50) | 157 |
| 25A-MGGL (Ball bushing bearing) (ø20 to ø50) | 161 |


| Description |  | Series | Page |
| :---: | :---: | :---: | :---: |
|  | Slide Unit | 25A-CXWM (Slide bearing) (ø10 to ø32) | 158 |
|  | Dual Rod Cylinder | 25A-CXSJ (Slide bearing/Ball bushing bearing) ( $\varnothing 6$ to ø32) | 159 |
|  |  | 25A-CXS (Slide bearing/Ball bushing bearing) ( $\varnothing 6$ to $\varnothing 32$ ) | 160 |
|  | Rotary Clamp Cylinder <br> Stopper Cylinder <br> Heavy Duty Stopper Cylinder | 25A-MK (ø12 to ø63) | 162 |
|  |  | 25A-RSQ (Fixed mounting height) ( $\varnothing 12$ to $\varnothing 50$ ) | 163 |
|  |  | 25A-RSH (ø20/ø32) | 164 |
|  | (ISO Standards) Air Cylinder | 25A-C85 (Standard) (ISO Standard (6432)) (08 to ø25) | 165 |
|  |  | 25A-CP96 (Standard) ISO Standard (15552) (ø32 to ø125) | 166 |
|  |  | 25A-C96 (Standard) ISO Standard (15552) ( $¢ 32$ to $\varnothing 125$ ) | 167 |
|  |  | 25A-C95 (Standard) ISO Standard (15552) ( $\varnothing 160, \varnothing 200$ ) | 168 |
|  | (ISO Standards) Compact Cylinder kis New | 25A-C55 (Standard) ISO Standard (21287) (ø20 to ø100) | 169 |
| Related Products | Shock Absorber | 25A-RJ (Soft type) | 170 |
|  |  | 25A-RJ (Short stroke type) | 171 |
|  |  | 25A-RB (C) | 172 |
|  | Floating Joint | 25A-JS (Stainless steel type) (10 to 63) | 173 |
|  |  | 25A-JA (80, 100) | 173 |
|  |  | 25A-JB (For compact cylinders) (12 to 100) | 173 |
|  | Rotary Table | 25A-MSUB (Vane type) (1 to 20) | 174 |
|  |  | 25A-MSQ (Rack \& Pinion type) (10 to 50) | 174 |
|  |  | 25A-MSQ (Rack \& Pinion type) (10 to 200) | 178 |
|  |  | 25A-MSQ-X251 (Rack \& Pinion type, With vacuum port) (10 to 200) | 178 |
|  | 3-Position Rotary Table | 25A-MSZ (10 to 50) | 180 |
| $\begin{aligned} & \frac{\infty}{\omega} \\ & \frac{0}{2} \\ & \frac{2}{U} \\ & \frac{\vdots}{⿺ 𠃊} \end{aligned}$ | Parallel Type Air Gripper | 25A-JMHZ2 (Compact type) ( $\varnothing 8$ to $\varnothing 20$ ) | 181 |
|  |  | $25 A-J M H Z 2-\times 6900(A, B)$ (With positioning pins on the lateral mounting surface)(08 to 020) | 181 |
|  |  | 25A-JMHZ2-X7460 (Lateral auto switch mounting) ( $\varnothing 8$ to $\varnothing 20$ ) | 181 |
|  |  | 25A-MHZ2 (ø10 to $\varnothing 40$ ) | 182 |
|  |  | 25A-MHZL2 (Long stroke) (ø10 to ø25) | 183 |
|  |  | 25A-MHZJ2 (With dust cover) ( $\varnothing 10$ to $\varnothing$ 25) | 184 |
|  |  | 25A-MHZJ2-X6100 (With dust cover) (ø32/ø40) | 184 |
|  |  | 25A-MHZL2-X5955 (Long stroke, With dust cover) (ø10 to ø20) | 184 |
|  |  | 25A-MHF2 (Low profile type) ( $\varnothing 8$ to ø20) | 185 |
|  |  | 25A-MHL2-Z (Wide type) ( $\varnothing 10$ to $\varnothing 40$ ) | 186 |
|  |  | 25A-MHL2 (Wide type) ( $\varnothing 10$ to $\varnothing 40$ ) | 186 |
|  |  | 25A-MHS $\square$ (3-finger, 4-finger) ( $\varnothing 16$ to $\varnothing$ ( ${ }^{\text {2 }}$ ) | 187 |
|  |  | 25A-MHSJ3 (3-finger, With dust cover) ( $\varnothing 16$ to $\varnothing 32$ ) | 188 |
|  |  | 25A-MHY2 (180 ${ }^{\circ}$ Angular type, Cam type) ( $\varnothing 10$ to $\varnothing 25$ ) | 189 |
|  |  | 25A-MHW2 ( $180^{\circ}$ Angular type, Rack \& Pinion type) ( $\varnothing 20$ to $\varnothing 50$ ) | 190 |
| 9 |  | SSMC |  |


|  | Description | Series | Page |
| :---: | :---: | :---: | :---: |
|  | Vacuum Unit New | 25A-ZK2 $\square$ A (Ejector system: Single unit) | 191 |
|  | Compact Vacuum Unit | 25A-ZQ $\square$ A (Ejector system: Single unit/Manifold) | 197 |
|  |  | 25A-ZQ $\square$ A (Vacuum pump system: Single unit/Manifold) | 200 |
|  |  | ZHIDDA (Body ported) (Only the models without connection threads) | 206 |
|  |  | ZH $\square \square \mathbf{B A}$ (Box type) (Only the models without connection threads) | 206 |
|  | In-line Type Vacuum Ejector | ZU $\square \square \mathbf{A}$ (In-line type) (Only the models without connection threads) | 207 |
|  | In-line Air Filter | ZFC (With One-touch fittings) | *1 |
|  | Vacuum Pad | ZP (Only pad units and pads with stainless steel adapters) | 208 |
|  |  | ZP3 $\square$ (Only pad units and pads with aluminum or stainless steel adapters) | 214 |
|  | Bernoulli Gripper | ZNC $\square$ (Only grippers without a sensor) | 223 |
|  |  | ZNC $\square$-C (Only grippers without a sensor) | 224 |
|  | Vacuum Regulator . New | 25A-IRV | 225 |
|  | Adsorption Plate | SP | *1 |
| łueud!nbョ uo!!eıedəコd I! IV | Membrane Air Dryer | 25A-IDG $\square$ A (Single unit/Standard dew point $-40^{\circ} \mathrm{C} /-60^{\circ} \mathrm{C}$ specifications) | 227 |
|  | Air Preparation Filter | 25A-AFF-D (Line filter)/AM-D (Mist separator)/ AMD-D (Micro mist separator) | 229 |
|  |  | 25A-AMK-D (Activated carbon filter) | 230 |
|  |  | 25A-AFF (Main line filter) | 231 |
|  |  | 25A-AM (Mist separator) | 232 |
|  |  | 25A-AMD (Micro mist separator) | 233 |
|  |  | 25A-AMH (Micro mist separator with pre-filter) | 234 |
|  | Clean Air Filter | SFD100/110 | 235 |
|  |  | SFD200 | 235 |
|  |  | 25A-AMP (Exhaust cleaner for clean room) | 236 |
|  |  | SFE (Clean exhaust filter) | 237 |
|  | Modular Type Air Combination | AC-D (Available through the Simple Specials System) | 238 |
|  | Modular Type <br> Air Filter <br> (Micro) Mist Separator | 25A-AF-D (Air filter) | 239 |
|  |  | 25A-AFM-D (Mist separator) | 241 |
|  |  | 25A-AFD-D (Micro mist separator) | 241 |
|  |  | 25A-AF-A (Air filter) | 240 |
|  |  | 25A-AFM-A (Mist separator) | 242 |
|  |  | 25A-AFD-A (Micro mist separator) | 242 |
|  |  | 25A-AR-D (Regulator) | 243 |
|  |  | 25A-AR $\square \mathrm{K}-\mathrm{D}$ (Regulator with backflow function) | 243 |
|  |  | 25A-AW-D (Filter regulator) | 245 |
|  |  | 25A-AW $\square \mathrm{K}-\mathrm{D}$ (Filter regulator with backflow function) | 245 |
|  |  | 25A-AWM-D (Mist separator regulator) | 247 |
|  |  | 25A-AWD-D (Micro mist separator regulator) | 247 |
|  |  | 25A-AR-B (Regulator) | 244 |
|  |  | 25A-AR $\square \mathrm{K}-\mathrm{B}$ (Regulator with backflow function) | 244 |
|  |  | 25A-AW-B (Filter regulator) | 246 |
|  |  | 25A-AW $\square \mathrm{K}$-B (Filter regulator with backflow function) | 246 |

[^1]

| Series | Page |
| :--- | :---: |
| 25A-AV-A (Soft start-up valve) | $247-1$ |
| 25A-IR $\square-A$ (Precision regulator) | 248 |
| 25A-ITV (Electro-pneumatic regulator) | 249 |
| 25A-ITV209 $\square$ (Electronic Vacuum Regulator) | $249-1$ |
| 25A-VBA $* 2$ | 250 |
| 25A-VBAT (Air tank) | 251 |
| G43-X300 (Internal/external parts copper-free type) | 252 |
| G46-SRB (External metal parts and wetted parts stainless steel type)*3 | 253 |



| AS-FG (Stainless steel type) | 254 |
| :--- | :---: |
| AS-FSG (With indicator stainless steel type) | 255 |
| AS-FPG (Clean/Stainless steel type) | 256 |
| 25A-AQ240F/340F | 257 |
| 25A-AKH (With One-touch fittings) | 258 |
| KQ2-G (Stainless steel) | 259 |
| KQ2 (Only the type without a connection thread) | 21 |
| KPG (Clean One-touch fittings) | 260 |
| KQG2 (Stainless steel 316 One-touch fittings) | 262 |
| KFG2 (Stainless steel 316 insert fittings) | 263 |
| MS (Miniature fittings/Stainless steel 316) | 264 |
| 25A-KDM (Rectangular multi-connector) | 265 |
| KKA (S Couplers stainless steel type) |  |



| T (Nylon) | 267 |
| :--- | :--- |
| TS (Soft nylon) | 267 |
| TU (Polyurethane) | 267 |
| TA $\square$ (Antistatic) | 267 |
| TL (Fluoropolymer) | 268 |
| TH (FEP) | 268 |
| TD (Soft fluoropolymer) | 268 |
| TPS (Soft polyolefin) | 268 |
| IDK (Moisture control tube) | 268 |



| 25A-ZSE20(F)/ISE20 (3-screen display high-precision) | 269 |
| :--- | :--- |
| 25A-ZSE20A(F)/ISE20A (3-screen display high-precision) | 270 |
| 25A-ZSE20B(F)/ISE20B (3-screen display high-precision) | 271 |
| 25A-ZSE20C(F)/ISE20C(H) (3-screen display high-precision, for general fluids) | 272 |

[^2]|  | Description | Series | Page |
| :---: | :---: | :---: | :---: |
|  | Flow Switch | 25A-PF2M7 (For air, Integrated display type) | 273 |
|  |  | 25A-PF2M7-L (IO-Link) | 274 |
|  |  | 25A-PFM7 (For air, Integrated display type) | 275 |
|  |  | 25A-PFM5 (For air, Remote type) | 276 |
|  |  | 25A-PFM3 (For air, Flow monitor) | 277 |
|  |  | 25A-PFMB7 (For air, Integrated display type) | 278 |
|  |  | 25A-PF3A7■H | 279 |
|  |  | 25A-PF3A7 $\square \mathrm{H}-\mathrm{L}$ (IO-Link) | 280 |
|  |  | 25A-PF3W7-Z (For water, Integrated display type) | 281 |
|  |  | 25A-PF3W5-Z (For water, Remote type) | 282 |
|  |  | 25A-PF3W (For water, Integrated display/Remote type) | 283 |
|  |  | 25A-PF3W-U (PVC piping, Integrated display/Remote type) | 284 |
|  |  | 25A-PF3W30 (For water, Flow monitor) | 285 |
| Fluid Control Equipment | Direct Operated 2-Port Solenoid Valve | 25A-JSX (Stainless steel body: Water/Air/Oil) | 286 |
|  |  | 25A-JSX (Aluminum body: Air) | 287 |
|  |  | 25A-JSX (High flow/ Power saving type: Stainless steel body: Water/Air/Oil) | 288 |
|  |  | 25A-VX2 (For air) | 289 |
|  |  | 25A-VX2 (For water/medium vacuum) | 290 |
|  | Pilot Operated 2-Port Solenoid Valve | 25A-VXD (For air) | 291 |
|  |  | 25A-VXD (For water) | 292 |
|  | Zero Differential Pressure Type Pilot Operated 2-Port Solenoid Valve | 25A-VXZ (For air) | 293 |
|  |  | 25A-VXZ (For water) | 294 |
|  | Diaphragm Valve for Ultra High Purity <br> Diaphragm Valves for General Applications | AZ3542 \& 4542■25A (Air operated type) | 295 |
|  |  | AK3542 \& 4542■25A (Air operated type) | 297 |
|  | Electric Actuator | 25A-LEKFS (High rigidity and High precision slider type/Batter--less absolute: Applicable to the JXCD) | 298-3 |
|  |  | 25A-LEEFSSCG (High periomancelfigh rigidity and High precision sidider typelBatery-les absolute: Applicable to the JXCD) | 298-5 |
|  |  | 25A-LEKFS (High rigidity and High precision slider type/AC servo motor: Applicable to the LECS■) | 298-7 |
|  |  | 25A-LEKFS (High rigidity and High precision sider type/AC servo motor: Applicable to the LECYロ) | 298-8 |
|  |  | 25A-LEKFS (High rigidity and High precision slider type/Motorless type) | 298-9 |
|  |  | 25A-LEFS (Slider type/Battery-less absolute: Applicable to the JXC $\square$ ) | 298-10 |
|  |  | 25A-LEFS (Slider typel/ncremental (Step motor/Servo motor): Applicable to the JXCD/LECD) | 299 |
|  |  | 25A-LEFS $\square$ G (ligh performance/Sider type/Battery-less absolute (Step motor): Applicable to the JXCD) | 302-1 |
|  |  | 25A-LEFS $\square F$ (High performance/Slider typel/ncremental (Step motor): Applicable to the JXCם) | 302-3 |
|  |  | 25A-LEFS (Slider type/AC servo motor: Applicable to the LECS $\square$ ) | 303 |
|  |  | 25A-LEFS (Slider type/AC servo motor: Applicable to the LECY $\square$ ) | 304 |
|  |  | 25A-LEFS (Slider type/Motorless type) | 304-1 |


| 25A- series grease pack*1 applicable | Grease pack part no. | Quantity |
| :---: | :---: | :---: |
| models | GR-D-005 | 5 g |
| *1 Air cylinders (Except guide unit). For other models, | GR-D-010 | 10 g |
| please contact your local sales representative. | GR-D-100 | 100 g |

Contained in a plastic container.


Special Products (Please contact your local sales representative for more details.)

| Description | Series |
| :---: | :---: |
| 3-Port Solenoid Vave/Residual Pressure Release Valve with Detection of Main Vave Position (Safety Standard ISO 13849-1 Certified) | VG342-X87 |


|  | Air Cylinder With End Lock | CBM2 |
| :---: | :---: | :---: |
|  |  | MBB |
|  | Compact Cylinder with Lock , | CLQ |
|  | Stopper Cylinder | RSQ |
|  | Heavy Duty Stopper Cylinder | RS2H |


|  | Non-contact Gripper | XT661 |
| :---: | :---: | :---: |



Aluminum
High Vacuum Angle Valve

## XLA (Normally closed)

XLC (Double acting)

## Pe \& <br> and Zinc (Zn) Restrictions" products.

## (1) Antistatic Equipment

Antistatic performance achieved through conductive measures for a reduction in static-related trouble.


## (2) Static Neutralization Equipment

Ions generated by corona discharge neutralize static electricity.

- Ionizer/Bar Type
- Bar Type Ionizer Separate Controller
- Ionizer
- Nozzle Type lonizer

Fan Type lonizer

IZS4 $\square$ Series
IZT4 $\square$ Series
IZS31 Series
IZN10E Series
IZF $\square$ Series
Measurement Equipment Measures the electrostatic potential.

- Electrostatic Sensor
- Handheld Electrostatic Meter

IZD10/IZE11 Series
IZH10 Series

Static electricity

4) Electric Actuators


## 5 High Purity Chemical Liquid Valves

High Purity Chemical Liquid Valve/Air Operated Type LVC/LVA/LVH Series


LVH Series

## Air Management System Electro-Pneumatic Regulator Type <br> RoHS 25A-AMS20A/30A/40A/60A Series



|  |  |  | Symbol | Description | (1) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Body size |  |
|  |  |  | 20 |  | 30 | 40 | 60 |
| (2) | Pipe thread type |  |  | R | Rc | $\bigcirc$ | - | - | $\bigcirc$ |
|  |  |  | N | NPT | - | $\bullet$ | $\bullet$ | $\bigcirc$ |
|  |  |  | F | G | - | - | $\bigcirc$ | $\bigcirc$ |
|  |  |  | H | Without attachments | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| + |  |  |  |  |  |  |  |  |
| (3) | Port size |  |  | 01 | 1/8 | - | - | - | - |
|  |  |  | 02 | 1/4 | - | $\bigcirc$ | - | - |
|  |  |  | 03 | 3/8 | - | $\bullet$ | $\bullet$ | - |
|  |  |  | 04 | 1/2 | - | - | $\bigcirc$ | - |
|  |  |  | 06 | 3/4 | - | - | - | $\bigcirc$ |
|  |  |  | 10 | 1 | - | - | - | $\bigcirc$ |
|  |  |  | 00 | Without attachments | - | - | $\bigcirc$ | $\bigcirc$ |
| + |  |  |  |  |  |  |  |  |
| (4) | Electro-Pneumatic regulator, Residual | N.O./N.C. | C | N.C. (Normally closed) | - | - | $\bigcirc$ | $\bigcirc$ |
|  | pressure relief 3 -port solenoid valve |  | D | N.O. (Normally open) | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| + |  |  |  |  |  |  |  |  |
| 5 | Air management hub | Protocol | SA | Standalone (When wireless adapter is connected*3: Wireless remote) | - | - | $\bigcirc$ | $\bigcirc$ |
|  |  |  | PN | PROFINET, OPC UA (When wireless adapter is connected*3: Wireless base) | $\bigcirc$ | $\bigcirc$ | $\bullet$ | $\bigcirc$ |
|  |  |  | EN | EtherNet/IPTM, OPC UA (When wireless adapter is connected*3: Wireless base) | $\bigcirc$ | $\bullet$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  | EC | EtherCAT*4 (When wireless adapter is connected*3: Wireless base) | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |


| 6 | Electro-Pneumatic regulator, | Unit | K*1 | EXA1/ITV: Units selection function | - | $\bigcirc$ | - | $\bigcirc$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Air management hub |  | M*2 | EXA1/ITV: SI units only | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| + |  |  |  |  |  |  |  |  |
| (7) | Residual pressure relief 3-port solenoid valve | Manual override | G | Non-locking push type | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  | E | Push-turn locking type (Manual) | $\bigcirc$ | $\bigcirc$ | $\bullet$ | $\bullet$ |

*1 Applies to overseas destinations only
*2 Fixed units Instantaneous flow: L/min
Accumulated flow : L
Pressure : $\mathrm{kPa}, \mathrm{MPa}$
Temperature $\quad:{ }^{\circ} \mathrm{C}$
*3 The wireless adapter is sold separately. (Refer to page 14-8.)
*4 EtherCAT is not compatible with OPC UA. In addition, the PLC (Programmable Logic Controller)/controller must support EoE (Ethernet over EtherCAT).

* The connection cable for the standby electro-pneumatic regulator/residual pressure relief valve is connected.
* The 25A-series specifications and dimensions are the same as those of the standard model.


## Air Management System Regulator Type 25A-AMS20B/30B/40B/60B Series


*1 For port size "00", specify thread type of the standby regulator (ARS).
*2 Applies to overseas destinations only
*3 Fixed units Instantaneous flow: L/min
Accumulated flow: L
Pressure : kPa, MPa
Temperature
${ }^{\circ} \mathrm{C}$
*4 The wireless adapter is sold separately. (Refer to page 14-8.)
*5 EtherCAT is not compatible with OPC UA. In addition, the PLC (Programmable Logic Controller)/controller must support EoE (Ethernet over EtherCAT).

* The connection cable for the standby electro-pneumatic regulator/residual pressure relief valve is connected.


## Air Management Hub

RoHS 25A-EXA1 Series


$$
8
$$



| (3) | Unit | K*1 | Units selection function | - | $\bigcirc$ | - | $\bigcirc$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | M*2 | SI units only | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ |

*1 Applies to overseas destinations only
*2 Fixed units Instantaneous flow: L/min, Accumulated flow: L, Pressure: $\mathrm{kPa} / \mathrm{MPa}$, Temperature: ${ }^{\circ} \mathrm{C}$
*3 The wireless adapter is sold separately. (Refer to page 14-8.)
*4 EtherCAT is not compatible with OPC UA. In addition, the PLC (Programmable Logic Controller)/controller must support EoE (Ethernet over EtherCAT).

# Standby Electro-Pneumatic Regulator 25A-ITV2050 to 3050-X399 

Symbol



Series compatible with secondary batteries

1) Applicable AMS $\square$ A size

| $\mathbf{2 0}$ | For $25 A-A M S 20 A$ |
| :---: | :---: |
| $\mathbf{3 0}$ | For $25 A-A M S 30 A$ |
| $\mathbf{4 0}$ | For $25 A-A M S 40 A$ |
| $\mathbf{6 0}$ | For $25 A-A M S 60 A$ |

2 Type of actuation

| 1 | Normally closed |
| :---: | :---: |
| 2 | Normally open |

(3) Pressure display unit

| $\mathbf{K}$ | Units selection function |
| :---: | :---: |
| $\mathbf{M}$ | SI units only |

# valve only 

Standby Regulator 25A-AR20S to 50S Series

## Symbol



|  | Symbol | Description |
| :--- | :--- | :--- |



| (3) | $\begin{gathered} \text { Port size } \\ \text { (Screws are IN side only.) } \end{gathered}$ | 02 | 1/4 |
| :---: | :---: | :---: | :---: |
|  |  | 03 | 3/8 |
|  |  | 04 | 1/2 |
|  |  | 10 | 1 |


| $\bullet$ | - | - | - |
| :---: | :---: | :---: | :---: |
| - | $\bullet$ | - | - |
| - | - | $\bullet$ | - |
| - | - | - | $\bullet$ |


| 4 | Pilot valve | Manual <br> override | Nil | Non-locking push type |
| :--- | :--- | :---: | :---: | :--- |
|  | E | Push-turn locking type (Manual) |  |  |


| $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |
| :--- | :--- | :--- | :--- |
| $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |

## Gauge port view

* Same for all sizes

* The 25A- series specifications and dimensions are the same as those of the standard model.


## Residual Pressure Relief 3-Port Solenoid Valve

 25A-V/P366E/546E/766E/966E-X660X6661

## (3) Manual override

| $\mathbf{N i l}$ |
| :---: |
| $\mathbf{E}$ | | Nil |  |
| :--- | :--- |
| E |  |

$\qquad$
$\qquad$ Non-locking push type
Push-turn locking type (Manual)
4 Soft start-up function

| $\mathbf{N i l}$ | None |
| :---: | :---: |
| $\mathbf{S}$ | With soft start-up function |

5 Type of actuation

| X660 | N.C. (Normally closed) |
| :---: | :---: |
| X661 | N.O. (Normally open) |

## 25A-AMS20/30/40/60 Series <br> Accessories



## Accessories

## (1) Wireless Adapter

Wireless adapter for air management hub EXA1
A wireless adapter needs to be connected to both the wireless base and the wireless remote.

## EXW1-A11N

Specifications

| Item |  | Specifications |
| :---: | :---: | :---: |
| Wireless communication | Protocol | SMC original protocol (SMC encryption) |
|  | Radio wave type (spread) | Frequency Hopping Spread Spectrum (FHSS) |
|  | Frequency | 2.4 GHz (2403 to 2481 MHz ) |
|  | Number of frequency channels | 79 ch |
|  | Channel bandwidth | 1.0 MHz |
|  | Communication speed | 1 Mbps |
|  | Communication distance | Approx. 100 m (Depending on the operating environment) |
|  | Radio Law certificate | Refer to the SMC website for the latest information regarding in which countries the product is certified. |
| Electrical | Power supply voltage range | 24 VDC +10\% |
|  | Current consumption | 50 mA or less |
| General | Enclosure | IP67 |
|  | Ambient temperature (Operating temperature) | 0 to $50^{\circ} \mathrm{C}$ |
|  | Ambient temperature (Storage temperature) | -10 to $60^{\circ} \mathrm{C}$ |
|  | Ambient humidity | 35 to 85\%RH (No condensation) |
|  | Withstand voltage | 500 VAC, 1 min |
|  | Insulation resistance | $500 \mathrm{VDC}, 10 \mathrm{M} \Omega$ or more |
|  | Vibration resistance | $\begin{gathered} \text { Conforms to EN } 61131-2 \\ 5<=\mathrm{f}<8.4 \mathrm{~Hz} 3.5 \mathrm{~mm} \\ 8.4<=\mathrm{f}<150 \mathrm{~Hz} 9.8 \mathrm{~m} / \mathrm{s}^{2} \end{gathered}$ |
|  | Impact resistance | Conforms to EN 61131-2 $147 \mathrm{~m} / \mathrm{s}^{2}, 11 \mathrm{~ms}$ |
|  | Standards | CE/UKCA marking, UL (CSA)*1 |
|  | Weight | 40 g |

*1 UL (CSA) compliance applies only when connected to an EXA1 air management hub.
*2 Order the wireless adapter cable separately.


Connector

| M8, 4-pin, plug | Terminal no. | Description |
| :---: | :---: | :---: |
| $\left(\begin{array}{ll} 0 & 0 \\ 0 & 0 \end{array}\right)_{2}^{1}$ | 1 | 24 V (US1) |
|  | 2 | Internal bus B |
|  | 3 | OV (US1) |
|  | 4 | Internal bus A |

Wireless adapter

* Included parts: Fixing bracket
* Fixing bracket part no.: 25A-EXA1-AB1
* Only the screws are
stainless steel.


## (2) Wireless Adapter Cable [M8 connector, For EXW1-A11N, With connectors on both sides (socket/plug)]

EXW1-AC030-SSPS Straight 2950 mm


## 25A-AMS20/30/40/60 Series

3 Power Supply Cable (M12 connector, For EXA1)

## 90-ZS-37-A-X258

## Lead wire with M12 connector

Cable Specifications

| Item |  | Specifications |
| :--- | :--- | :---: |
| Conductor | oominal cross section | AWG23 |
| Insulator | Outside diameter | Approx. 1.1 mm |
|  | Color | Brown, Bue, Black, White |
| Sheath | Finished outside diameter | $\varnothing 4$ |



| Pin no. | Pin name | Wire color |
| :---: | :---: | :---: |
| $\mathbf{1}$ | DC(+) | Brown |
| $\mathbf{2}$ | N.C. | White |
| $\mathbf{3}$ | DC(-) | Blue |
| $\mathbf{4}$ | N.C. | Black |

4) Connection Cable for Standby Regulator/Residual Pressure Relief Valve [With M12 angle connectors on both sides (male/female)]

25A-EXA1-AC1 25A-EXA1-AC2


## (5) Communication Cable

## For EtherCAT ${ }^{\oplus}$ For PROFINET For EtherNet/IPTM

EX9-AC 005 EN-PSPS (With connector on both sides (Plug/Plug))
Cable length (L)

| 005 | 500 mm | 2 |
| :---: | :---: | :---: |
| 010 | 1000 mm |  |
| 020 | 2000 mm |  |
| 030 | 3000 mm |  |
| 050 | 5000 mm |  |
| 100 | 10000 mm |  |



Connections (Straight cable)

EX9-AC 005 EN-PAPA (With angled connector on both sides (Plug/Plug))
CCable length (L)

| 005 | 500 mm |
| ---: | ---: |
| $\mathbf{0 1 0}$ | 1000 mm |
| 020 | 2000 mm |
| $\mathbf{0 3 0}$ | 3000 mm |
| $\mathbf{0 5 0}$ | 5000 mm |
| 100 | 10000 mm |



Connections (Straight cable)

## 25A-AMS20/30/40/60 Series

## (5) Communication Cable

## For EtherCAT ${ }^{\text {® }}$ | For PROFINET For EtherNet/IPTM

EX9-AC 020 EN-PSRJ (Plug/RJ-45 connector)
Cable length (L)

| $\mathbf{0 1 0}$ | 1000 mm |
| ---: | ---: |
| $\mathbf{0 2 0}$ | 2000 mm |
| $\mathbf{0 3 0}$ | 3000 mm |
| $\mathbf{0 5 0}$ | 5000 mm |
| $\mathbf{1 0 0}$ | 10000 mm |



PCA-1446566 (Plug)

(6) Connection cable and connector for connection component
(Standby input signal/Isolation input signal/IO-Link device/Input device/Output device) (M12)

## IO-Link Device Cable

## 90-ZS-37-A-X547



## Accessories <br> 25A-AMS20/30/40/60 Series

## (7 Seal Cap (10 pcs.)

Be sure to mount a seal cap on any unused I/O connectors. Otherwise, the specified enclosure cannot be maintained.

EX9-AWES

## 25A-AMS20/30/40/60 Series



## 9 Spacer with Bracket



| Model | $\mathbf{A}$ | $\mathbf{B}$ | $\mathbf{C}$ | $\mathbf{D}$ | $\mathbf{E}$ | $\mathbf{E E}$ | $\mathbf{F}$ | $\mathbf{G}$ | $\mathbf{H}$ | $\mathbf{J}$ | K | M | Applicable size |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 25A-Y200T-2-D | 3.2 | 97 | 42.5 | 106 | 35 | 47 | 14 | 7 | 28 | 6 | 85 | 2 | 25A-AMS20 |
| 25A-Y300T-2-D | 4.2 | 97 | 42.5 | 111.5 | 35 | 47 | 14 | 7 | 28 | 6 | 85 | 3 | 25A-AMS30 |
| 25A-Y400T-1-D | 5.2 | 115 | 50 | 120.5 | 40 | 55 | 18 | 9 | 32 | 7 | 85 | 3 | 25A-AMS40 |
| 25A-Y600T-2-D | 6.2 | 140 | 60 | 145 | 50 | 70 | 20 | 11 | 37 | 8 | 100 | 4 | 25A-AMS60 |

## (1)Silencer

## Compact Resin Type



Dimensions

| Dimensions | [mm] |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Model | Port size R | A | B |  |
| AN20-02 | $1 / 4$ | 45 | 16.5 |  |
| AN30-03 | $3 / 8$ | 58.5 | 20 |  |
| AN40-04 | $1 / 2$ | 68 | 24 |  |

High Noise Reduction Type
AN202 to 402


High Noise Reduction Type
ANA1-06

| Dimensions |  |  |  |
| :---: | :---: | :---: | :---: |
| Model | Port size R | A | B |
| AN202-02 | $1 / 4$ | 64 | 22 |
| AN302-03 | $3 / 8$ | 84 | 28 |
| AN402-04 | $1 / 2$ | 95 | 34 |


| Dimensions |  |  |  |
| :--- | :---: | :---: | :---: |
| Model | Port size R | A | B |
| ANA1-06 | $3 / 4$ | 111 | 46 |



Compatibility Chart for Residual Pressure Relief Valve and Silencers

|  | Silencer | Compact resin type |  |  | High noise reduction type |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model | AN20-02 | AN30-03 | AN40-04 | AN202-02 | AN302-03 | AN402-04 | ANA1-06 |
|  | Port size | 1/4 | 3/8 | 1/2 | 1/4 | 3/8 | 1/2 | 3/4 |
| 25A-VP346E | X660 (N.C.) | $\bigcirc$ | - | - | $\bigcirc$ | - | - | - |
|  | X661 (N.O.) | $\bigcirc$ | - | - | - | - | - | - |
| 25A-VP546E | X660 (N.C.) | - | $\bigcirc$ | - | - | $\bigcirc$ | - | - |
|  | X661 (N.O.) | - | $\bigcirc$ | - | - | - | - | - |
| 25A-VP746E | X660 (N.C.) | - | - | $\bigcirc$ | - | - | $\bigcirc$ | - |
|  | X661 (N.O.) | - | $\bigcirc$ | - | - | - | - | - |
| 25A-VP946E | X660 (N.C.) | - | - | - | - | - | - | **1 |
|  | X661 (N.O.) | - | - | - | - | - | - | $\bigcirc$ |

*1 Combined with silencer bushing: 25A-AMS-AB1
(11) Marker (1 sheet, 88 pcs.)

The signal name of I/O device and each unit address can be entered and mounted on each unit.

## EX600-ZT1

## 25A-AMS20/30/40/60 Series

## 12 Wireless Adapter Mounting Bracket

1 round head combination screw ( $\mathrm{M} 3 \times 10$ ) is included.

## 25A-EXA1-AB1


(13IO-Link Device Tool License Key
USB dongle
EX9-ZSW-LDT1


* The IO-Link Device Tool V5-PE (V5 or later only) manufactured by TMG Technologie und Engineering GmbH (hereinafter referred to as TMG) is required for setting IO-Link devices. The IO-Link Device Tool can be downloaded for free from TMG's website. However, to use it for more than 30 days, a license key for the IO-Link Device Tool is required.


## Plug-in Connector Connecting Base

## D-sub Connector

Type 10
Side Ported

# 25A-JSY1000/3000 Series 

Internal Pilot
How to Order Manifolds

Series

| $\mathbf{1}$ | JSY1000 |
| :---: | :---: |
| $\mathbf{3}$ | JSY3000 |

Connector type



4 Connector entry direction
1: Upward $\quad$ 2: Lateral
(5) Valve stations

F: D-sub connector (25 pins)

| Symbol | Stations | Note |
| :---: | :---: | :---: |
| $\mathbf{0 2}$ | 2 stations |  |
| $\vdots$ | $\vdots$ | Double wiring*1 |
| $\mathbf{1 2}$ | 12 stations |  |
| $\mathbf{0 2}$ | 2 stations | Specified layout*2 |
| $\vdots$ | $\vdots$ | (Up to 16 solenoids available) |
| $\mathbf{1 6}$ | 16 stations |  |

*1 Double wiring: 2-position single, 2-position double, 3-position, and 4-position valves can be used on all manifold stations. The use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.
*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3 -position, and 4-position valves cannot be used where single wiring has been specified.)

* This also includes the number of blanking plates.

6 P, E port entry

| U | U side (2 to 10 stations) |
| :---: | :--- |
| D | D side (2 to 10 stations) |
| B | Both sides (2 to 16 stations) |SUP/EXH block assembly


| Nil | Internal pilot |
| :---: | :---: |
| $\mathbf{S}$ | Internal pilot, <br> Built-in silencer |

* The 3/5(E) port is plugged for the built-in silencer type.

8 A, B port size (Metric/One-touch fitting)

| Symbol |  | A, B port | JSY1000 | JSY3000 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C4 |  | $\varnothing 4$ | - | - |  |
| C6 |  | $\varnothing 6$ | - | - |  |
| C8 |  | $\varnothing 8$ | - | - |  |
| CM*1 |  | Straight port, mixed sizes | $\bigcirc$ | $\bigcirc$ |  |
| P, E port size (One-touch fittings) |  |  | $\varnothing 8$ | $\varnothing 10$ |  |

*1 Indicate the sizes on the manifold specification sheet for "CM."

* The JSY1000 manifold pitch for C4 is 6.5 mm , and 9 mm for C6. When CM is selected, the manifold pitch is different depending on the selected fitting.


## Mounting and Option

| Symbol | Mounting |
| :---: | :---: |
| Nil | Direct mounting |
| D $\square$ | DIN rail mounting |

DIN Rail Option

| $\mathbf{N i l}$ | DIN rail mounting (With DIN rail) |  |
| :---: | :---: | :--- |
| $\mathbf{0}$ | DIN rail mounting (Without DIN rail) |  |
| $\mathbf{3}$ | For 3 stations | Specify a length longer than <br> $\vdots$ <br> $\vdots$ <br> $\mathbf{1 6}$ <br> For 16 stations |
| that of the standard rail. |  |  |

* Enter the number of stations inside $\square$ when it is larger than the number of valve stations. (Refer to "DIN Rail Option" shown above.)
* Refer to the Web Catalog for details on securing the DIN rail mounting type manifold.
* The 25A- series specifications and dimensions are the same as those of the standard model.

How to Order Manifold Assembly

Example (25A-JJ5SY3-10F1-■)


Manifold base ( 5 stations) 25A-JJ5SY3-10F1-05D-C8

> 25A-JJ5SY3-10F1-05D-C8 ... 1 set (Type 105 -station manifold base part no.) * 25A-JSY3100-5U ............... 2 sets (2-position single part no.) | $* 25 A-J S Y 3200-5 U ~ . . . . . . . . . . . . . . . ~$ |
| :---: | sets (2-position double part no.) Prefix it to the part numbers of the valve, etc.

For the valve arrangement, the valve closest to the D side is considered the 1st station.
Under the manifold part number, state the valves to be mounted in order starting with the 1st station as shown in the figure. If the arrangement becomes too complicated, specify the details on a manifold specification sheet.

Internal Pilot


| (1) Series |
| :--- |
| $\mathbf{\| c \| c \|}$ |
| $\mathbf{3}$ |$\quad$ JSY1000

Pilot valve exhaust method
$\mathbf{0}$ Pilot valve individual exhaust

## Rated voltage

5
5 24 VDC

## $\triangle$ Caution

If the JSY3000 series is to be continuously energized, please be sure to select the power-saving circuit (continuous duty type) specification. Refer to "Made to Order."
For the JSY1000 series, only the power-saving circuit specification is available.

Type of actuation

| 1 | 2-position | Single |
| :---: | :---: | :---: |
| 2 |  | Double |
| 3 | 3-position | Closed center |
| 4 |  | Exhaust center |
| 5 |  | Pressure center |
| A | 4-position dual 3-port | N.C./N.C. |
| B |  | N.O./N.O. |
| C |  | N.C./N.O. |

(5) Light/surge voltage suppressor and common specification

| Symbol | With light | Surge voltage suppressor | Common specification |
| :---: | :---: | :---: | :---: |
| U | $\bigcirc$ | $\bigcirc$ | Non-polar |
| Z |  |  | Positive common |
| NZ |  |  | Negative common |

* Only "Z" and "NZ" types are available for the JSY1000 series.
* When the non-polar common specification type is selected, take measures to prevent surge voltage. For details, refer to the Web Catalog.
(6) Manual override

* Push-turn locking lever type " $E$ " is not available for the JSY1000.
* When ordering a valve individually, the base gasket is not included. Since the base gasket is attached to the manifold, please order the base gasket separately if it is needed for maintenance. Refer to the Web Catalog for base gasket part numbers.
Refer to page 24 for mounting screw part numbers.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Plug-in Connector Connecting Base 

## Terminal Block Box

# 25A-JSY1000/3000 Series 



| (1) Series |
| :--- |
| $\mathbf{\|}$ |
| $\mathbf{3}$ |

2) Type

| 10 | Side ported |
| :---: | :--- |

3 Wiring

| $\mathbf{T}$ | Terminal block box |
| :---: | :---: |

Valve stations

*1 Double wiring: 2-position single, 2-position double, 3-position, and 4-position valves can be used on all manifold stations. The use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.
*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3 -position, and 4-position valves cannot be used where single wiring has been specified.)
*3 This also includes the number of blanking plates.

A, B port size (Metric/One-touch fitting)

| Symbol |  | A, B port | JSY1000 | JSY3000 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C4 | $\begin{array}{\|l} \stackrel{\rightharpoonup}{\mathrm{O}} \\ . \\ . \overline{0} \\ \stackrel{\rightharpoonup}{\omega} \\ \hline \end{array}$ | $ø 4$ | - | - |  |
| C6 |  | ø6 | $\bigcirc$ | $\bigcirc$ |  |
| C8 |  | ø8 | - | $\bigcirc$ |  |
| CM*1 |  | Straight port, mixed sizes | $\bigcirc$ | $\bigcirc$ |  |
| P, E port size (One-touch fittings) |  |  | $ø 8$ | $\varnothing 10$ |  |

*1 Indicate the sizes on the manifold specification sheet for "CM."

* The JSY1000 manifold pitch for C4 is 6.5 mm , and 9 mm for C6. When CM is selected, the manifold pitch is different
depending on the selected fitting.

5 P, E port entry

| $\mathbf{U}$ | U side (2 to 10 stations) |
| :---: | :---: |
| D | D side (2 to 10 stations) |
| B | Both sides (2 to 16 stations) |

6 sup/EXH block assembly

| Nil | Internal pilot |
| :---: | :---: |
| $\mathbf{S}$ | Internal pilot, Built-in silencer |

* The $3 / 5(E)$ port is plugged for the built-in silencer type.
* When the built-in silencer type is used, keep the exhaust port from coming into direct contact with water or other liquids.


## 8 Mounting and Option

| Symbol | Mounting |
| :---: | :---: |
| Nil | Direct mounting |
| $\mathbf{D} \square$ | DIN rail mounting |

* Enter the number of stations inside $\square$ when it is larger than the number of valve stations. (Refer to "DIN Rail Option" shown below.)
* Refer to the Web Catalog for details on securing the DIN rail mounting type manifold.


## DIN Rail Option

| Nil | DIN rail mounting (With DIN rail) |  |
| :---: | :---: | :---: |
| 0 | DIN rail mounting (Without DIN rail) |  |
| 3 | For 3 stations | Specify a length longer than that of the standard rail. |
| ! | ! |  |
| 16 | For 16 stations |  |

* The 25A- series specifications and dimensions are the same as those of the standard model.

> 25A-JJ5SY3-10T-05D-C8 ...... 1 set (Type 10 5-station manifold base part no.) * 25A-JSY3100-5U ................ 2 sets (2-position single part no.) *25A-JSY3200-5U ................ 3 sets (2-position double part no.) $\xrightarrow{\longrightarrow}$ The asterisk denotes the symbol for the assembly. $\quad$ Prefix it to the part numbers of the valve, etc.

For the valve arrangement, the valve closest to the D side is considered the 1st station.
Under the manifold part number, state the valves to be mounted in order starting with the 1st station as shown in the figure. If the arrangement becomes too complicated, specify the details on a manifold specification sheet.

Internal Pilot

| 1 Series |
| :--- |
| 1 JSY 1000 <br> 3 JSY 3000 |

Pilot valve exhaust method
$0 \quad$ Pilot valve individual exhaust

|  | of actua |  |
| :---: | :---: | :---: |
| 1 | 2-position | Single |
| 2 |  | Double |
| 3 | 3-position | Closed center |
| 4 |  | Exhaust center |
| 5 |  | Pressure center |
| A | 4-position dual 3-port | N.C./N.C. |
| B |  | N.O./N.O. |
| C |  | N.C./N.O. |

## Rated voltage

## $\triangle$ Caution

If the JSY3000 series is to be continuously energized, please be sure to select the power-saving circuit (continuous duty type) specification. Refer to "Made to Order."
For the JSY1000 series, only the power-saving circuit specification is available.


## Plug-in Connector Connecting Base

Type 10
Side Ported

## EX260

# 25A-JSY1000/3000 Series 

## How to Order Manifolds



Number of outputs, Communication connector)

| Symbol (Output polarity) |  | Protocol | $\begin{aligned} & \text { Number } \\ & \text { of } \\ & \text { outputs } \end{aligned}$ | $\begin{gathered} \text { Communcaicion } \\ \text { cmnetor } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| Positive conmon (NPN) | Negative common (PNP) |  |  |  |
| 0*1 |  | Without SI unit |  |  |
| QA | QAN | DeviceNet ${ }^{\text {TM }}$ | 32 | M12 |
| QB | QBN |  | 16 |  |
| NA | NAN | PROFIBUS DP | 32 | M12 |
| NB | NBN |  | 16 |  |
| VA | VAN | CC-Link | 32 | M12 |
| VB | VBN |  | 16 |  |
| DA | DAN | EtherCAT | 32 | M12 |
| DB | DBN |  | 16 |  |
| FA | FAN | PROFINET | 32 | M12 |
| FB | FBN |  | 16 |  |
| EA | EAN | EtherNet/IP ${ }^{\text {TM }}$ | 32 | M12 |
| EB | EBN |  | 16 |  |

*1 Without SI unit, the output polarity is decided by the SI unit used.
Ensure a match with the common
specification of the valves to be used

* DIN rail cannot be mounted without SI unit.



## 5 P, E port entry

| U | U side (2 to 10 stations) |
| :---: | :---: |
| D | D side (2 to 10 stations) |
| B | Both sides (2 to 16 stations) |


\section*{6 SUP/EXH block assembly <br> | Nil | Internal pilot |
| :---: | :---: |
| $\mathbf{S}$ | Internal pilot, Built-in silencer |}

* The 3/5(E) port is plugged for the built-in silencer type.
* When the built-in silencer type is used, keep the exhaust port from coming into direct contact with water or other liquids.

A, B port size (Metric/One-touch fitting)

| Symbol | A, B port |  | JSY1000 | JSY3000 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C4 | Straight | $\varnothing 4$ | - | - | 85 |
| C6 |  | $ø 6$ | - | - | L 1 |
| C8 |  | $\varnothing 8$ | - | - | O Le ${ }^{\text {a }}$ |
| CM*1 |  | Straight port, mixed sizes | - | - | $8{ }^{8}$ |
| P, E port size (One-touch fittings) |  |  | $ø 8$ | $\varnothing 10$ |  |

*1 Indicate the sizes on the manifold specification sheet for "CM."

* The JSY1000 manifold pitch for C4 is 6.5 mm , and 9 mm for C6. When CM is selected, the manifold pitch is different depending on the selected fitting.

[^3]How to Order Manifold Assembly




Pilot valve exhaust method
0 Pilot valve individual exhaustRated voltage

## $\triangle$ Caution

If the JSY3000 series is to be continuously energized, please be sure to select the power-saving circuit (continuous duty type) specification. Refer to "Made to Order."
For the JSY1000 series, only the power-saving circuit specification is available.
(2) Type of actuation

| 1 | 2-position | Single |
| :---: | :---: | :---: |
| 2 |  | Double |
| 3 | 3-position | Closed center |
| 4 |  | Exhaust center |
| 5 |  | Pressure center |
| A | 4-position dual 3-port | N.C./N.C. |
| B |  | N.O./N.O. |
| C |  | N.C./N.O. |

(5) Light/surge voltage suppressor and common specification

| Symbol | With light | Surge voltage suppressor | Common specification |
| :---: | :---: | :---: | :---: |
| U | - | $\bigcirc$ | Non-polar |
| Z |  |  | Positive common |
| NZ |  |  | Negative common |

* Select "U" or "Z" for the valve when the SI unit output polarity is Nil (positive common). Select "U" or "NZ" for the valve when the SI unit output polarity is N (negative common).
* Only "Z" and "NZ" types are available for the JSY1000 series.
* When the non-polar common specification type is selected, take measures to prevent surge voltage. For details, refer to the Web Catalog.

6 Manual override


* Push-turn locking lever type " $E$ " is not available for the JSY1000.
* When ordering a valve individually, the base gasket is not included.
Since the base gasket is attached to the manifold, please order the base gasket separately if it is needed for maintenance.
Refer to the Web Catalog for base gasket part numbers.
Refer to page 24 for mounting screw part numbers.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## Plug-in Connector Connecting Base

## EX120

# 25A-JSY1000/3000 Series 



| $\mathbf{1}$ | JSY1000 |
| :--- | :--- |
| $\mathbf{3}$ | JSY3000 |

Valve stations

| Symbol | Stations | Note |
| :---: | :---: | :---: |
| $\mathbf{0 2}$ | 2stations |  |
| $\vdots$ | $\vdots$ | Double wiring*1 |
| $\mathbf{0 8}$ | 8stations |  |
| $\mathbf{0 2}$ | 2stations | Specified layout*2 |
| $\vdots$ | $\vdots$ | (Up to 16 solenoids available) |
| $\mathbf{1 6}$ | 16 stations |  |

*1 Double wiring: 2-position single, 2-position double, 3-position, and 4-position valves can be used on all manifold stations. The use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.
*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3 -position, and 4-position valves cannot be used where single wiring has been specified.)

* This also includes the number of blanking plates.
(3) Sl unit

| $\mathbf{0}$ | Without SI unit |
| :---: | :---: |
| $\mathbf{Q}$ | DeviceNet $^{\text {TM }}$ (Positive common NPN) |
| $\mathbf{V}$ | CC-Link (Positive common NPN) |

* Ensure a match with the common specification of the valve to be used.
(6) sUP/EXH block

7 A, B port size (Metric/One-touch fitting)
(5) P, E port entry

| U | U side (2 to 10 stations) |
| :---: | :---: |
| D | D side (2 to 10 stations) |
| B | Both sides (2 to 16 stations) |


| Nil | Internal pilot |
| :---: | :---: |
| S | Internal pilot, Built-in silencer |

* The $3 / 5$ (E) port is plugged for the built-in silencer type.

| Symbol | A, B port |  | JSY1000 | JSY3000 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C4 | Straight | $\varnothing 4$ | - | - |  |
| C6 |  | ø6 | - | - |  |
| C8 |  | $ø 8$ | - | - |  |
| CM*1 |  | Straight port, mixed sizes | - | - |  |
| P, E port size (One-touch fittings) |  |  | $ø 8$ | $\varnothing 10$ |  |

*1 Indicate the sizes on the manifold specification sheet for "CM."

* The JSY1000 manifold pitch for C4 is 6.5 mm , and 9 mm for C6. When CM is selected, the manifold pitch is different depending on the selected fitting.


## 8 Mounting and Option

| Symbol | Mounting |
| :---: | :---: |
| Nil | Direct mounting |
| $\mathbf{D} \square$ | DIN rail mounting |

* Enter the number of stations inside $\square$ when it is larger than the number of valve stations. (Refer to "DIN Rail Option" shown below.)
Refer to the Web Catalog for details on securing the DIN rail mounting type manifold. DIN Rail Option

| $\mathbf{N i l}$ | DIN rail mounting (With DIN rail) |  |
| :---: | :---: | :---: |
| $\mathbf{0}$ | DIN rail mounting (Without DIN rail) |  |
| $\mathbf{3}$ | For 3 stations | Secify a length longer than <br> $\vdots$ |
| $\mathbf{1 6}$ | For 16 stations |  |
| that of the standard rail. |  |  |

* If the DIN rail must be mounted without an SI unit, select DO. Refer to L3 of the dimensions for the DIN rail length and order separately. (Refer to the Web Catalog for the
DIN rail part number.)
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

[^4]How to Order Manifold Assembly

$$
\begin{aligned}
& \text { 25A-JJ5SY3-10S3Q-05D-C8 . } 1 \text { set (Type } 10 \text { 5-station manifold base part no.) } \\
& \text { * 25A-JSY3100-5U ............... } 2 \text { sets (2-position single part no.) } \\
& \begin{array}{l}
\text { *25A-JSY3200-5U ................ } 3 \text { sets (2-position double part no.) } \\
\longrightarrow
\end{array} \begin{array}{l}
\text { The asterisk denotes the symbol for the assembly. } \\
\\
\text { Prefix it to the part numbers of the valve, etc. }
\end{array}
\end{aligned}
$$

For the valve arrangement, the valve closest to the D side is considered the 1st station.
Under the manifold part number, state the valves to be mounted in order starting with the 1st station as shown in the figure. If the arrangement becomes too complicated, specify the details on a manifold specification sheet.

Internal Pilot

(1) Series

| 1 | JSY 1000 |
| :---: | :---: |
| 3 | JSY 3000 |

(3) Pilot valve exhaust method

| $\mathbf{0}$ | Pilot valve individual exhaust |
| :--- | :--- |

## Rated voltage

## $\triangle$ Caution

If the JSY3000 series is to be continuously energized, please be sure to select the power-saving circuit (continuous duty type) specification.
For the JSY1000 series, only the power-saving circuit specification is available.
(2) Type of actuation

| 1 | 2-position | Single |
| :---: | :---: | :---: |
| 2 |  | Double |
| 3 | 3-position | Closed center |
| 4 |  | Exhaust center |
| 5 |  | Pressure center |
| A | 4-position dual 3-port | N.C./N.C. |
| B |  | N.O./N.O. |
| C |  | N.C./N.O. |

(5) Light/surge voltage suppressor and common specification

| Symbol | With light | Surge voltage suppressor | Common specification |
| :---: | :---: | :---: | :---: |
| U | - | - | Non-polar |
| Z |  |  | Positive common |

* Only "Z" and "NZ" types are available for the JSY1000 series.
* When the non-polar common specification type is selected, take measures to prevent surge voltage. For details, refer to the Web Catalog.


## 25A-JSY1000/3000 Series Manifold Options

Blanking plate assembly
(With two mounting screws)
Used when valve additions are expected or for maintenance. A structure is in place on the blanking plate to prevent the mounting screws from sliding.


How to Order Blanking Plate Assembly

\section*{25A-JSY 31 M -26P-1A <br> - Series <br> | $\mathbf{1}$ | JSY1000 |
| :---: | :--- |
| $\mathbf{3}$ | JSY3000 |}

SI Unit Part Nos.

| Description | SI unit part no. | Note |
| :---: | :---: | :---: |
| EX260 SI unit | EX260-SPR1-X117 | PROFIBUS DP M12 connector, 32 outputs, Negative common (PNP) |
|  | EX260-SPR2-X117 | PROFIBUS DP M12 connector, 32 outputs, Positive common (NPN) |
|  | EX260-SPR3-X117 | PROFIBUS DP M12 connector, 16 outputs, Negative common (PNP) |
|  | EX260-SPR4-X117 | PROFIBUS DP M12 connector, 16 outputs, Positive common (NPN) |
|  | EX260-SDN1-X117 | DeviceNet ${ }^{\circledR}$ M12 connector, 32 outputs, Negative common (PNP) |
|  | EX260-SDN2-X117 | DeviceNet ${ }^{\circledR}$ M12 connector, 32 outputs, Positive common (NPN) |
|  | EX260-SDN3-X117 | DeviceNet ${ }^{\circledR}$ M12 connector, 16 outputs, Negative common (PNP) |
|  | EX260-SDN4-X117 | DeviceNet ${ }^{\circledR}$ M12 connector, 16 outputs, Positive common (NPN) |
|  | EX260-SEC1-X117 | EtherCAT M12 connector, 32 outputs, Negative common (PNP) |
|  | EX260-SEC2-X117 | EtherCAT M12 connector, 32 outputs, Positive common (NPN) |
|  | EX260-SEC3-X117 | EtherCAT M12 connector, 16 outputs, Negative common (PNP) |
|  | EX260-SEC4-X117 | EtherCAT M12 connector, 16 outputs, Positive common (NPN) |
|  | EX260-SMJ1-X117 | CC-Link M12 connector, 32 outputs, Negative common (PNP) |
|  | EX260-SMJ2-X117 | CC-Link M12 connector, 32 outputs, Positive common (NPN) |
|  | EX260-SMJ3-X117 | CC-Link M12 connector, 16 outputs, Negative common (PNP) |
|  | EX260-SMJ4-X117 | CC-Link M12 connector, 16 outputs, Positive common (NPN) |
|  | EX260-SPN1-X117 | PROFINET M12 connector, 32 outputs, Negative common (PNP) |
|  | EX260-SPN2-X117 | PROFINET M12 connector, 32 outputs, Positive common (NPN) |
|  | EX260-SPN3-X117 | PROFINET M12 connector, 16 outputs, Negative common (PNP) |
|  | EX260-SPN4-X117 | PROFINET M12 connector, 16 outputs, Positive common (NPN) |
|  | EX260-SEN1-X117 | EtherNet/IP ${ }^{\text {TM }}$ M12 connector, 32 outputs, Negative common (PNP) |
|  | EX260-SEN2-X117 | EtherNet/IP ${ }^{\text {TM }}$ M12 connector, 32 outputs, Positive common (NPN) |
|  | EX260-SEN3-X117 | EtherNet/IP ${ }^{\text {TM }}$ M12 connector, 16 outputs, Negative common (PNP) |
|  | EX260-SEN4-X117 | EtherNet/IP ${ }^{\text {TM }}$ M12 connector, 16 outputs, Positive common (NPN) |
| EX120 SI unit | EX120-SMJ1-X220 | CC-Link (Terminal block, 16 outputs, Positive common (NPN)) |
|  | EX120-SDN1-X220 | DeviceNet ${ }^{\text {® }}$ (Terminal block, 16 outputs, Positive common (NPN)) |

## One-touch Fittings Part Nos.

| Port size Series |  | 25A-JSY1000 |  | 25A-JSY3000 | Note |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 6.5 mm pitch | 9 mm pitch |  |  |
| A, B port | $\varnothing 4$ | 25A-KQSY10-C4-X1336 | - | - | The part number is for 1 piece. (Sales unit: 10 pcs.) |
|  | $ø 6$ | - | 25A-KQSY11-C6-X1336 | 25A-KQSY30-C6 |  |
|  | $ø 8$ |  |  | 25A-KQSY30-C8-X1336 |  |
| P, E port | $\varnothing 8$ | 25A-KQSY30-C8-X1336 |  | - |  |
|  | $\varnothing 10$ | - |  | 25A-KQSY31-C10-X1336 |  |

## How to Order Individual SUP/EXH Spacer Assembly

One-touch fitting
Straight type 25A - JSY 31M-38P-1A-C6

\section*{Series. <br> 1 JSY1000 <br> | 1 | JSY1000 |
| :--- | :--- |
| 3 | JSY3000 | <br> Individual SUP spacer <br> $\qquad$ <br> 39 <br> Individual EXH spacer}

d Port size (Metric)

| Symbol | P, E port | JSY1000 | JSY3000 |
| :---: | :---: | :---: | :---: |
| C4 | $\varnothing 4$ One-touch fitting | - | - |
| C6 | $\varnothing 6$ One-touch fitting | - | - |

Part numbers of mounting screw
(2 pcs. of each)
JSY1000: 25A-JSY11V-23-5A
JSY3000: 25A-JSY31V-23-2A

Manifold Parts Nos./For the 25A-JJ5SY1-10, 25A-JJ5SY3-10

| Description | 25A-JSY1000 |  | 25A-JSY3000 |
| :---: | :---: | :---: | :---: |
|  | 6.5 mm pitch | 9 mm pitch |  |
| Tie-rod for additional stations | JSY11M-49P-4-1-A <br> ( 6.5 mm pitch) | JSY11M-49P-3-1-A <br> ( 9 mm pitch) | JSY31M-49P-2-1-A <br> ( 11.5 mm pitch) |
| Tie-rod | JSY11M-49P-4-■-A <br> ( 6.5 mm pitch) | JSY11M-49P-3-■-A <br> ( 9 mm pitch) | JSY31M-49P-2-■-A <br> (11.5 mm pitch) |
| Valve mounting screw | $\begin{gathered} \text { 25A-JSY11V-23-4A } \\ \text { (M1.4 x } 21.5) \\ \hline \end{gathered}$ |  | $\begin{gathered} \text { 25A-JSY31V-23-1A } \\ (\mathrm{M} 2 \times 25) \\ \hline \end{gathered}$ |
| Clamp bracket (for connector connecting base) | 25A-JSY11M-15P-1A (Refer to the table below.) 25A-JSY11M-15P-2A (Refer to the table below.) |  | 25A-SY30M-15-1A |

Table. 25A-JSY1000 series clamp bracket

| Wiring <br> (JSY1000 series) |  | 25A-JSY11M-15P-1A | 25A-JSY11M-15P-2A |
| :---: | :---: | :---: | :---: |
| F | D-sub connector | $\bullet$ | - |
| T | Terminal block box | - | - |
| S $\square$ | EX260 | $\bullet$ | - |
| S3 | EX120 | $\bullet$ | - |

## Manifold Parts Nos.

(A) Manifold block assembly


| $\mathbf{1}$ | JSY1000 (6.5 mm pitch) <br> JSY3000 (11.5 mm pitch) |
| :--- | :--- |
| $\mathbf{2}$ | JSY1000 ( 9 mm pitch) |

- Wiring type

| S | Single wiring |
| :---: | :---: |
| D | Double wiring |

## 25A－JSY1000／3000 Series

## Manifold Parts Nos．

（B）SUP／EXH end block assembly
－Mounting

| Nil | Direct mounting |
| :---: | :---: |
| D0 | DIN rail mounting（Without DIN rail） |
| D00＊1 | DIN rail mounting（Without DIN rail） |

＊1 Part number only for the 25A－JSY1000
Part number is different depending on the wiring． Refer to Table 1.
Table 1．JSY1000 series DIN rail mounting

| Symbol | Wiring |
| :---: | :--- |
| D0 | D－sub connector（F type） <br> EX260（Sロロ type） <br> EX120（S3 type） |
| D00 | Terminal block box（T type） |

P，E port size（One－touch fittings）${ }^{\text {d }}$

| Symbol | Pilot type | Built－in silencer |
| :---: | :---: | :---: |
|  | Internal |  |
| $\mathbf{N i l}$ | $\bullet$ | - |
| $\mathbf{S}$ | $\bullet$ |  |

P，E port $\quad$ JSY1000 JSY3000

| Symbol | P，E port | JSY1000 | JSY3000 |
| :---: | :---: | :---: | :---: |
| C8 | $\varnothing 8$ One－touch fitting | $\bullet$ | - |
| C10 | $\varnothing 10$ One－touch fitting | - | $\bullet$ |
| $\mathbf{0 0}$ | Plug | $\bullet$ | $\bullet$ |

Clamp bracket

| Series |  | Part no． |
| :---: | :---: | :---: |
| 25A－JSY1000 | For D0 | 25A－JSY11M－15P－1A |
|  | For D00 | 25A－JSY11M－15P－2A |
| 25A－JSY3000 |  | 25A－SY30M－15－1A |

Cover，Silencer cover for SUP／EXH（end）block assembly


Cover
（Internal pilot）

Silencer cover （Internal pilot，Built－in silencer）


Manifold Parts Nos.
© SUP/EXH block assembly

## For D-sub connector



| $\mathbf{1}$ | Upward |
| :---: | :---: |
| 2 | Lateral |

For the terminal block box or EX260


For EX120


[^5]
## 25A-JSY1000/3000 Series

How to Order Pilot Valves


Pilot cover
25A - SY30V-25AS (For 25A-JsY3000)

* The pilot valve of the 25A-JSY1000 series cannot be replaced.


# Non Plug-in Metal Base 25A-JSY1000/3000 Series 

## Internal Pilot

## How to Order Manifolds


 Thread piping

| Symbol | A, B port | JSY1000 | JSY3000 |
| :---: | :---: | :---: | :---: |
| M3 | M3 $\times 0.5$ | $\bullet$ | - |
| M5 | M5 $\times 0.8$ | $\bullet$ | $\bullet$ |
| $\mathbf{0 1}$ | $1 / 8$ | - | $\bullet$ | secondary batteries



## 6 Thread type

 Nil Rc*1 Plugs are mounted on the opposite side of the selected ports.


One-touch fitting (Metric)

| Symbol |  | A, B port | JSY1000 | JSY3000 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 0 \\ & 0 \\ & \dot{x} \\ & i x \end{aligned}$ | C4 | ø4 | - | - |  |
|  | C6 | ø6 | - | - |  |
|  | KC4 | $\varnothing 4$ | - | - |  |
|  | KC6 | $ø 6$ | - | $\bigcirc$ |  |
|  | KC8 | $\varnothing 8$ | - | - |  |
|  | M ${ }^{* 1}$ | A, B ports mixed | - | - |  |
| P, E port size (Thread piping) |  |  | 1/8 | 1/4 |  |

*1 When ports are mixed sizes, indicate the piping specifications on the manifold specification sheet.

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## How to Order Manifold Assembly

Example (25A-JJ5SY3-40- $\square$ )


25A-JJ5SY3-40-05D-C6 .. 1 set (Type 405 -station manifold base part no.) * 25A-JSY3140-5LOZ ......... 3 sets (2-position single part no.) * 25A-JSY3240-5LOZ ......... 1 set (2-position double part no.) *25A-JSY3340-5LOZ ......... 1 set (3-position closed center part no.)
$\longrightarrow$ The asterisk denotes the symbol for the assembly. Prefix it to the part numbers of the valve, etc.
For the valve arrangement, the valve closest to the $D$ side is considered the 1st station.
Under the manifold part number, state the valves to be mounted in order starting with the 1st station as shown in the figure. If the arrangement becomes too complicated, specify the details on a manifold specification sheet.


1 Series

| $\mathbf{1}$ | JSY1000 |
| :---: | :---: |
| $\mathbf{3}$ | JSY3000 |


| 2 Type of actuation |
| :--- |
| $\mathbf{1}$ |
| $\mathbf{2}$ |
| $\mathbf{3}$ |
| $\mathbf{4}$ |
| $\mathbf{5}$ |
| 2-position single |
| A |
| 3 |
| 3-position closed center |
| $\mathbf{C}$ |
| D-position exhaust center 3-port (N.C./N.C.) |

(3) Pilot valve exhaust method

0 O $\quad$ Pilot valve individual exhaust
$\frac{\text { 4 } \text { Rated voltage }}{5}$
6 Light/surge voltage suppressor

| $\mathbf{z}$ | With lh lightssurge voltage <br> suppressor |
| :---: | :---: |

(5) Electrical entry


* Refer to the Web Catalog for the lead wire length of $L$ and $M$ plug connectors.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## $\triangle$ Caution

If the JSY3000 series is to be continuously energized, please be sure to select the power-saving circuit (continuous duty type) specification. Refer to "Made to Order."
For the JSY1000 series, only the power-saving circuit specification is available.

## 25A-JSY1000/3000 Series Manifold Options

## Blanking plate assembly

(With two mounting screws)
Used when valve additions are expected or for maintenance. A structure is in place on the blanking plate to prevent the mounting screws from sliding.


How to Order Blanking Plate Assembly

## $$
\text { 25A-JSY } 31 \mathrm{M}-26-1 A
$$ <br> Series <br> | $\mathbf{1}$ | JSY1000 |
| :--- | :--- |
| $\mathbf{3}$ | JSY3000 |

Valve Mounting Screw Part No.

| Description | Part no. |  | Note |
| :---: | :---: | :---: | :---: |
|  | 25A-JSY11V-23-4A | 25A-JSY31V-23-4A |  |

One-touch Fittings Part Nos.

| Port size |  |  | 25A-JSY1000 | 25A-JSY3000 |
| :---: | :---: | :---: | :---: | :---: |
| A, B port | Metric size | ø4 One-touch fitting (Straight type) | 25A-KQSY10-C4-X1336 | - |
|  |  | ø6 One-touch fitting (Straight type) | 25A-KQSY11-C6-X1336 | 25A-KQSY30-C6 |
|  |  | ø8 One-touch fitting (Straight type) | - | 25A-KQSY30-C8-X1336 |

How to Order Individual SUP/EXH Spacer Assembly
One-touch fitting Straight type


| 38 | Individual SUP spacer |
| :--- | :--- |
| 39 | Individual EXH spacer |



| Symbol | P, E port | JSY1000 | JSY3000 |
| :---: | :---: | :---: | :---: |
| C4 | $\varnothing 4$ One-touch fitting | $\bullet$ | - |
| C6 | $\varnothing 6$ One-touch fitting | - | $\bullet$ |

Part numbers of mounting screw (2 pcs. of each)
JSY1000: 25A-JSY11V-23-5A
JSY3000: 25A-JSY31V-23-5A

## How to Order Pilot Valves

For 25A-JSY3000


* For the 25A-JSY1000, the pilot valve is the same as that of the standard model.


## Plug-in Connector Connecting Base

## D-sub Connector <br> C E CK

25A-SY50007000 Series

How to Order Manifolds

Series

| $\mathbf{5}$ | SY5000 |
| :--- | :--- |
| $\mathbf{7}$ | SY7000 |



## Connector type

F: D-sub connector


## Connector entry direction

| F: D-sub connector (25 pins) |  |  |
| :---: | :---: | :---: |
| Symbol | Staions | Note |
| 02 | 2 2stions | Double wiring*1 |
|  |  |  |
| 12 | 12 staions |  |
| 02 | 2sadions | Specified layout*2 (Up to 24 solenoids available) |
|  | : |  |
| 24 | 24 staions |  |

*1 Double wiring: 2-position single, 2-position double, 3 -position, and 4-position valves can be used on all manifold stations.
The use of a 2 -position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.
*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3 -position, and 4-position valves cannot be used where single wiring has been specified.)

* The blanking plate assembly is included in this number.

F: D-sub connector (25 pins)
6 P P, E port entry

| $\mathbf{U}$ | U side (2 to 10 stations) |
| :---: | :---: |
| D | D side (2 to 10 stations) |
| B | Both sides (2 to 24 stations) |


| 7 SUP/EXH block assembly |  |
| :---: | :---: |
| Nil | Internal pilot |
| S | Internal pilot, |
| Built-in silencer |  |
| R | External pilot |

* The 3/5(E) port is plugged for the built-in silencer type.



## 5 Valve stations

8 A, B port size (Metric)

| Symbol | A, B port |  | Type 10/ Side ported |  | Type 11/ Bottom ported |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SY5000 | SY7000 | SY5000 | SY7000 |
| C4 |  | $\varnothing 4$ | $\bigcirc$ | - | $\bigcirc$ | - |
| C6 |  | ø6 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| C8 |  | $\varnothing 8$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| C10 |  | $\varnothing 10$ | - | $\bigcirc$ | - | $\bigcirc$ |
| C12 |  | $\varnothing 12$ | - | $\bigcirc$ | - |  |
| CM*1 |  | Straight port, mixed sizes | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - |
| P, E port size (One-touch fittings) |  |  | $\varnothing 10$ | $\varnothing 12$ | $\varnothing 10$ | $\varnothing 12$ |

*1 Indicate the sizes on the manifold specification sheet for "CM."

* The direction of $\mathrm{P}, \mathrm{E}$ port fittings is the same as for the $\mathrm{A}, \mathrm{B}$ port.


## 9 Mounting



* Enter the number of stations inside $\square$ when it is larger than the number of valve stations. (Refer to "DIN Rail Option" above.)
* Only direct mounting is available for the type 11 bottom-ported type.
* The 25A- series specifications and dimensions are the same as those of the standard model.


1 Series

| $\mathbf{5}$ | SY5000 |
| :--- | :--- |
| $\mathbf{7}$ | SY7000 |


| 2 Type of actuation |
| :--- |
| $\mathbf{1}$ |
| $\mathbf{2}$ |
| $\mathbf{3}$ |
| $\mathbf{4}$ |
| $\mathbf{5}$ |
| A |
| 2-position single |
| 3 |
| 3-position closed center |
| $\mathbf{C}$ | 4-position dual 3-position dual valve (N.C./N.C.)

Seal type
0
0
Rubber seal

## Pilot type

| Nil | Internal pilot |
| :---: | :---: |
| $\mathbf{R}$ | External pilot |

* When selecting the external pilot specification for the 4-position dual 3-port valve, pay attention to the pilot pressure. For details, refer to the valve specifications of the standard SY series product in the Web Catalog.

Back pressure check valve (Built-in valve type)

| Nil | None |
| :---: | :---: |
| $\mathbf{H}$ | Built-in |

* The built-in valve type back pressure check valve is not available for the 3-position type or the SY7000.
6 Pilot valve option

| Nil | Standard $(0.7 \mathrm{MPa})$ |
| :---: | :---: |
| B | Quick response type $(0.7 \mathrm{MPa})$ |

## 7 Coil type

Nil Standard T $\quad$ With power-saving circuit (Continuous duty type)

* Be sure to select the power-saving circuit type if the valve is to be continuously energized for long periods of time.
* Be careful of the energizing time when the power-saving circuit is selected. For details, refer to the standard product catalog.



## 8 Rated voltage

| 5 | 24 VDC |
| :--- | :---: |
| $\mathbf{6}$ | 12 VDC |

## (9) Light/surge voltage suppressor

 and common specification| Nil | Without light/surge voltage suppressor <br> (Non-polar) |
| :---: | :---: |
| R | With surge voltage suppressor <br> (Non-polar) |
| $\mathbf{U}$ | With light/surge voltage suppressor <br> (Non-polar) |
| S | With surge voltage suppressor <br> (Positive common) |
| Z | With light/surge voltage suppressor <br> (Positive common) |
| NS | With surge voltage suppressor <br> (Negative common) |
| NZ | With light/surge voltage suppressor <br> (Negative common) |

* Only "Z" and "NZ" types are available with a power-saving circuit.


## Plug-in Connector Connecting Base

## D-sub Connector

Type 12
Top Ported

How to Order Manifolds


Series compatible
with secondary batteries

(2) Connector type

F: D-sub connector

(3) Connector entry direction


*1 6 For type "S,"
SUP/EXH block assembly with a built-in silencer, choose "U" or "D" for P port entry.

6 SUP/EXH block assembly

| Nil | Internal pilot |
| :---: | :---: |
| $\mathbf{S}$ | Internal pilot, <br> Built-in silencer |

* The P and E ports are only available on the U and D sides for the builtin silencer type. The $3 / 5(\mathrm{E})$ port is plugged. The silencer exhaust port is located on the opposite side of the $P$ and E port entry. (Example: When the $P$ and $E$ port entry is on the $D$ side, the silencer exhaust port is on the U side.)

7 Mounting

| Nil | Direct mounting |  |
| :---: | :---: | :---: |
| $\mathbf{D}$ | DIN rail mounting (With DIN rail) |  |
| D0 | DIN rail mounting (Without DIN rail) |  |
| D3 | For 3 stations | Specify a length longer than |
| $\vdots$ | $\vdots$ |  |
| D24 | For 24 stations |  |

* The 25A- series specifications and dimensions are the same as those of the standard model.


(2) Type of actuation

| $\mathbf{1}$ | 2-position single |
| :---: | :---: |
| $\mathbf{2}$ | 2-position double |
| $\mathbf{3}$ | 3-position closed center |
| $\mathbf{4}$ | 3-position exhaust center |
| $\mathbf{5}$ | 3-position pressure center |
| A | 4-position dual 3-port valve (N.C./N.C.) |
| $\mathbf{B}$ | 4-position dual 3-port valve (N.O./N.O.) |
| $\mathbf{C}$ | 4-position dual 3-port valve (N.C./N.O.) |

Seal type
0 Rubber seal

Back pressure check valve (Built-in valve type)

| Nil | None |
| :---: | :---: |
| $\mathbf{H}$ | Built-in |

* The built-in valve type back pressure check valve is not available for the 3-position type or the SY7000.
(5) Pilot valve option

| Nil | Standard ( 0.7 MPa$)$ |
| :---: | :---: |
| B | Quick response type $(0.7 \mathrm{MPa})$ |

## 6 Coil type

Nil Standard
T With power-saving circuit (Continuous duty type)

* Be sure to select the power-saving circuit type if the valve is to be continuously energized for long periods of time.
* Be careful of the energizing time when the power-saving circuit is selected. For details, refer to the standard product catalog.


## (9) Manual override


(10 A, B port size
Thread piping

| Symbol | Port size | Applicable series |
| :---: | :---: | :---: |
| $\mathbf{0 2}$ | $1 / 4$ | SY7000 |

One-touch fitting (Metric)

| Symbol | A, B port | SY5000 | SY7000 |
| :---: | :---: | :---: | :---: |
| C4 | $\varnothing 4$ | $\bullet$ | - |
| C6 | $\varnothing 6$ | $\bullet$ | $\bullet$ |
| C8 | $\varnothing 8$ | $\bullet$ | $\bullet$ |
| C10 | $\varnothing 10$ | - | $\bullet$ |
| C12 | $\varnothing 12$ | - | $\bullet$ |

(11) Thread type

| $\mathbf{N i l}$ | Rc |
| :---: | :---: |
| $\mathbf{F}$ | G |
| $\mathbf{N}$ | NPT |
| $\mathbf{T}$ | NPTF |

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Plug-in Connector Connecting Base 

How to Order Manifolds


Series compatible with secondary batteries


Valve stations

| Symbol | Stations | Note |
| :---: | :---: | :---: |
| 02 | 2 staions | Double wiring*1 |
| ! | : |  |
| 10 | 10 stations |  |
| 02 | 2 2sations | Specified layout*2 <br> (Up to 20 solenoids available) |
| ! | : |  |
| 20 | 20 sitions |  |

*1 Double wiring: 2-position single, 2-position double, 3-position, and 4-position valves can be used on all manifold stations.
The use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.
*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3-position, and 4-position valves cannot be used where single wiring has been specified.)

* The blanking plate assembly is included in this number.


P, E port entry

| $\mathbf{U}$ | U side (2 to 10 stations) |
| :---: | :---: |
| $\mathbf{D}$ | D side (2 to 10 stations) |
| $\mathbf{B}$ | Both sides (2 to 20 stations) |

5 SUP/EXH block assembly

| Nil | Internal pilot |
| :---: | :---: |
| $\mathbf{S}$ | Internal pilot, Built-in silencer |
| $\mathbf{R}$ | External pilot |

* The 3/5(E) port is plugged for the builtin silencer type.
* When the built-in silencer type is used, keep the exhaust port from coming into direct contact with water or other liquids.

* Enter the number of stations inside $\square$ when it is larger than the number of valve stations. (Refer to "DIN Rail Option" below.)
* Only direct mounting is available for the type 11 bottom-ported type.
DIN Rail Option

| Nil | Direct mounting |  |
| :---: | :---: | :---: |
| $\mathbf{0}$ | Without DIN rail (with bracket) |  |
| $\mathbf{3}$ | For 3 stations | Specify a longer rail <br> than the total length of |
| $\vdots$ | $\vdots$ | then |
| $\mathbf{2 0}$ | For 20 stations | specified stations. |


*1 Indicate the sizes on the manifold specification sheet for "CM."

* The direction of P, E port fittings is the same as for the A, B port.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

How to Order Valves（With mounting screw）


Series compatible with secondary batteries

| （1）Series |
| :--- |
| 5 SY5000 <br> 7 SY7000 |

## （2）Type of actuation

| $\mathbf{1}$ | 2－position single |
| :---: | :---: |
| $\mathbf{2}$ | 2－position double |
| $\mathbf{3}$ | 3－position closed center |
| $\mathbf{4}$ | 3－position exhaust center |
| $\mathbf{5}$ | 3－position pressure center |
| A | 4－position dual 3－port valve（N．C．／N．C．） |
| $\mathbf{B}$ | 4－position dual 3－port valve（N．O．／N．O．） |
| $\mathbf{C}$ | 4－position dual 3－port valve（N．C．／N．O．） |

Seal type
Rubber seal
6 Pilot valve option

| Nil | Standard $(0.7 \mathrm{MPa})$ |
| :---: | :---: |
| B | Quick response type $(0.7 \mathrm{MPa})$ |

## 7 Coil type

Nil Standard
T With power－saving circuit（Continuous duty type）
＊Be sure to select the power－saving circuit type if the valve is to be continuously energized for long periods of time．
＊Be careful of the energizing time when the power－saving circuit is selected．For details， refer to the standard product catalog．

## （10）Manual override



## 8 Rated voltage

| Rated voltage |
| :--- |
| 5 | and common specification


| Nil | Without light／surge voltage suppressor <br> （Non－polar） |
| :---: | :---: |
| R | With surge voltage suppressor <br> （Non－polar） |
| U | With light／surge voltage suppressor <br> （Non－polar） |
| S | With surge voltage suppressor <br> （Positive common） |
| Z | With light／surge voltage suppressor <br> （Positive common） |
| NS | With surge voltage suppressor <br> （Negative common） |
| NZ | With light／surge voltage suppressor <br> （Negative common） |

＊Only＂Z＂and＂NZ＂types are available with a power－saving circuit．

## （9）Light／surge voltage suppressor

Nil $\quad$ Without light／surge voltage suppressor
＊When selecting the external pilot specification for the 4－position dual 3 －port valve，pay attention to the pilot pressure．For details，refer to the valve specifications of the standard SY series product in the Web Catalog．

Back pressure check valve （Built－in valve type）

| Nil | None |
| :---: | :---: |
| $\mathbf{H}$ | Built－in |

＊The built－in valve type back pressure check valve is not available for the 3 －position type or the SY7000．
＊The 25A－series specifications and dimensions are the same as those of the standard model．

For details，refer to the Web Catalog．

## Plug-in Connector Connecting Base <br> Terminal Block Box <br> Type 12 <br> Top Ported <br> 25A-SY5000/7000 Series <br> ( C 羂 c ${ }^{-1}$ us

How to Order Manifolds



3 P, E port entry

| $\mathbf{U}^{* 1}$ | U side (2 to 10 stations) |
| :---: | :---: |
| $\mathbf{D}^{* 1}$ | D side (2 to 10 stations) |
| B | Both sides (2 to 20 stations) |

*1 4 For type "S," SUP/EXH block assembly with a built-in silencer, choose "U" or "D" for P port entry.

(4) SUP/EXH block assembly Nil Internal pilot S Internal pilot, Built-in silencer

* The P and E ports are only available on the U and D sides for the built-in silencer type. The $3 / 5(E)$ port is plugged. The silencer exhaust port is located on the opposite side of the P and E port entry. (Example: When the $P$ and $E$ port entry is on the $D$ side, the silencer exhaust port is on the $U$ side.)
* When the built-in silencer type is used, keep the exhaust port from coming into direct contact with water or other liquids.


## (5) Mounting

| Nil | Direct mounting |  |
| :---: | :---: | :---: |
| D | DIN rail mounting (With DIN rail) |  |
| D0 | DIN rail mounting (Without DIN rail) |  |
| D3 | For 3 stations | Specify a length |
| ! | ! | longer than that of |
| D20 | For 20 stations | the standard rail. |

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.


Series compatible with secondary batteries

(2) Type of actuation

| $\mathbf{1}$ | 2-position single |
| :---: | :---: |
| $\mathbf{2}$ | 2-position double |
| $\mathbf{3}$ | 3-position closed center |
| $\mathbf{4}$ | 3-position exhaust center |
| $\mathbf{5}$ | 3-position pressure center |
| A | 4-position dual 3-port valve (N.C./N.C.) |
| $\mathbf{B}$ | 4-position dual 3-port valve (N.O./N.O.) |
| $\mathbf{C}$ | 4-position dual 3-port valve (N.C./N.O.) |

Seal type
0 Rubber seal

Back pressure check valve (Built-in valve type)

| Nil | None |
| :---: | :---: |
| $\mathbf{H}$ | Built-in |

* The built-in valve type back pressure check valve is not available for the 3 -position type or the SY7000.
5 Pilot valve option

| Nil | Standard $(0.7 \mathrm{MPa})$ |
| :---: | :---: |
| B | Quick response type $(0.7 \mathrm{MPa})$ |

## 6 Coil type

Nil Standard
T With power-saving circuit (Continuous duty type)

* Be sure to select the power-saving circuit type if the valve is to be continuously energized for long periods of time.
* Be careful of the energizing time when the power-saving circuit is selected. For details, refer to the standard product catalog.


## (9) Manual override



10 A, B port size
Thread piping

| Symbol | Port size | Applicable series |
| :---: | :---: | :---: |
| 02 | $1 / 4$ | SY7000 |

One-touch fitting (Metric)

| Symbol | A, B port | SY5000 | SY7000 |
| :---: | :---: | :---: | :---: |
| C4 | $\varnothing 4$ |  | - |
| C6 | $\varnothing 6$ |  | $\bigcirc$ |
| C8 | $\varnothing 8$ |  | $\bigcirc$ |
| C10 | $\varnothing 10$ | - | $\bigcirc$ |
| C12 | $\varnothing 12$ | - | $\bigcirc$ |

(11) Thread type

| $\mathbf{N i l}$ | Rc |
| :---: | :---: |
| $\mathbf{F}$ | G |
| $\mathbf{N}$ | NPT |
| $\mathbf{T}$ | NPTF |

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## Plug-in Connector Connecting Base

# Lead Wire <br> 25A-SY5000/7000 Series 

How to Order Manifolds


(3) Number of cores (Lead wire)

| L1 | 34 cores |
| :---: | :---: |
| L2 | 17 cores |
| L3 | 9 cores |

## Type

| 10 | Side ported |
| :---: | :---: |
| 11 | Bottom ported |

## (4) Lead wire length

| $\mathbf{1}$ | 0.6 m |
| :---: | :---: |
| 2 | 1.5 m |
| 3 | 3 m |

5 Valve stations
(L1口)

| Symbol | Stations |
| :---: | :---: |$\quad$ Note

(L3■)

| (L3 |  |
| :---: | :---: |
| Symbol | Staitions |$c$ Note

(L2 $\square$ )

| Symbol | Stations | Note |
| :---: | :---: | :---: |
| 02 | 2 2stains | Double wiring*1 |
|  | $\vdots$ |  |
| 08 | 8staions |  |
| 02 | 2 2stions | Specified layout*2 (Up to 16 solenoids available) |
| : | : |  |
| 16 | 16 sations |  |

*1 Double wiring: 2-position single, 2-position double, 3-position, and 4 -position valves can be used on all manifold stations. The use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.
*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3 -position, and 4-position valves cannot be used where single wiring has been specified.)

* The blanking plate assembly is included in this number.

6 P, E port entry

| $\mathbf{U}$ | U side (2 to 10 stations) |
| :---: | :---: |
| $\mathbf{D}$ | D side (2 to 10 stations) |
| $\mathbf{B}$ | Both sides (2 to 24 stations) |

## SUP/EXH block assembly

| Nil | Internal pilot |
| :---: | :---: |
| S | Internal pilot, Built-in silencer |
| R | External pilot |

* The $3 / 5$ (E) port is plugged for the built-in silencer type.
* When the built-in silencer type is used, keep the exhaust port from coming into direct contact with water or other liquids.


## 8 A, B port size (Metric)


*1 Indicate the sizes on the manifold specification sheet for "CM."

* The direction of $\mathrm{P}, \mathrm{E}$ port fittings is the same as for the $\mathrm{A}, \mathrm{B}$ port.


## 9 Mounting

| Symbol | Mounting | Option |  |
| :---: | :---: | :---: | :---: |
|  |  | Name plate | Station number |
| Nil | Direct mounting | - | - |
| AA |  | - | - |
| BA |  | - | - |
| D $\square$ | DIN rail mounting | - | - |
| A $\square$ |  | - | - |
| B $\square$ |  | - | - |

* Enter the number of stations inside $\square$ when it is larger than the number of valve stations. (Refer to "DIN Rail Option" below.)
* Only direct mounting is available for the type 11 bottom-ported type.


## DIN Rail Option

| Nil | Direct mounting |  |
| :---: | :---: | :---: |
| $\mathbf{0}$ | Without DIN rail (with bracket) |  |
| $\mathbf{3}$ | For 3 stations | Specify a longer rail than |
| $\vdots$ | $\vdots$ | the total length of specified |
| $\mathbf{2 4}$ | For 24 stations | stations. |

* The 25A- series specifications and dimensions are the same as those of the standard model.

How to Order Valves (With mounting screw)


Series compatible with secondary batteries


2 Type of actuation

| $\mathbf{1}$ | 2-position single |
| :---: | :---: |
| $\mathbf{2}$ | 2-position double |
| $\mathbf{3}$ | 3-position closed center |
| $\mathbf{4}$ | 3-position exhaust center |
| $\mathbf{5}$ | 3-position pressure center |
| A | 4-position dual 3-port valve (N.C./N.C.) |
| $\mathbf{B}$ | 4-position dual 3-port valve (N.O./N.O.) |
| $\mathbf{C}$ | 4-position dual 3-port valve (N.C./N.O.) |

Seal type
Rubber seal
6 Pilot valve option

| Nil | Standard $(0.7 \mathrm{MPa})$ |
| :---: | :---: |
| B | Quick response type $(0.7 \mathrm{MPa})$ |

## 7 Coil type

Nil Standard T With power-saving circuit (Continuous duty type)

* Be sure to select the power-saving circuit type if the valve is to be continuously energized for long periods of time.
* Be careful of the energizing time when the power-saving circuit is selected. For details, refer to the standard product catalog.


## 8 Rated voltage

| 5 | 24 VDC |
| :---: | :---: |
| $\mathbf{6}$ | 12 VDC |

(9) Light/surge voltage suppressor and common specification

| Nil | Without light/surge voltage suppressor <br> (Non-polar) |
| :---: | :---: |
| R | With surge voltage suppressor <br> (Non-polar) |
| $\mathbf{U}$ | With light/surge voltage suppressor <br> (Non-polar) |
| $\mathbf{S}$ | With surge voltage suppressor <br> (Positive common) |
| $\mathbf{Z}$ | With light/surge voltage suppressor <br> (Positive common) |
| NS | With surge voltage suppressor <br> (Negative common) |
| NZ | With light/surge voltage suppressor <br> (Negative common) |

* Only "Z" and "NZ" types are available with a power-saving circuit.


## (10) Manual override



## Pilot type

| Nil | Internal pilot |
| :---: | :---: |
| $\mathbf{R}$ | External pilot |

* When selecting the external pilot specification for the 4-position dual 3 -port valve, pay attention to the pilot pressure. For details, refer to the valve specifications of the standard SY series product in the Web Catalog.

Back pressure check valve (Built-in valve type)

| Nil | None |
| :---: | :---: |
| $\mathbf{H}$ | Built-in |

* The built-in valve type back pressure check valve is not available for the 3 -position type or the SY7000.
* The 25A- series specifications and dimensions are the same as those of the standard model.


## Plug-in Connector Connecting Base

How to Order Manifolds



Number of cores
(Lead wire)

| L1 | 34 cores |
| :---: | :---: |
| L2 | 17 cores |
| L3 | 9 cores |

(3) Lead wire length

| $\mathbf{1}$ | 0.6 m |
| :---: | :---: |
| $\mathbf{2}$ | 1.5 m |
| $\mathbf{3}$ | 3 m |

## Valve stations

(L1■)

| Symbol | Stations | Note |
| :---: | :---: | :---: |
| 02 | 2 staions | Double wiring*1 |
| ! | $\vdots$ |  |
| 16 | 16 staions |  |
| 02 | 2 stations | Specified layout*2 (Up to 32 solenoids available) |
| ! | : |  |
| 24 | 24 staions |  |


| (L3 |  |  |
| :---: | :---: | :---: |
| Symbol | Staions | Note |
| 02 | 2sations | Double wiring*1 |
| ! | : |  |
| 04 | 4 staions |  |
| 02 | 2 2stions | Specified layout*2 (Up to 8 solenoids available) |
| : | ! |  |
| 08 | 8 staions |  |

(L2口)

| Symbol | Stations | Note |
| :---: | :---: | :---: |
| 02 | 2sations | Double wiring*1 |
|  | ! |  |
| 08 | 8sations |  |
| 02 | 2sations | Specified layout*2 (Up to 16 solenoids available) |
|  | $\vdots$ |  |
| 16 | 16 stains |  |

*1 Double wiring: 2-position single, 2-position double, 3-position, and 4-position valves can be used on all manifold stations. The use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.
*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3 -position, and 4-position valves cannot be used where single wiring has been specified.)

* The blanking plate assembly is included in this number.

5 P, E port entry

| U*1 | U side (2 to 10 stations) |
| :---: | :---: |
| D*1 | D side (2 to 10 stations) |
| B | Both sides (2 to 24 stations) |

*1 6 For type "S," SUP/EXH block assembly with a built-in silencer, choose "U" or "D" for P port entry.

## 6 SUP/EXH block assembly

Nil
Internal pilot S Internal pilot, Built-in silencer

* The $P$ and $E$ ports are only available on the $U$ and $D$ sides for the built-in silencer type. The $3 / 5(\mathrm{E})$ port is plugged. The silencer exhaust port is located on the opposite side of the $P$ and E port entry. (Example: When the $P$ and $E$ port entry is on the $D$ side, the silencer exhaust port is on the $U$ side.)
* When the built-in silencer type is used, keep the exhaust port from coming into direct contact with water or other liquids.

| M | ting |  |
| :---: | :---: | :---: |
| Nil | Direct mounting |  |
| D | DIN rail mounting (With DIN rail) |  |
| D0 | DIN rail mounting (Without DIN rail) |  |
| D3 | For 3 stations | Specify a length |
| ! | . | longer than that of |
| D24 | For 24 stations | the standard rail. |



(2) Type of actuation

| $\mathbf{1}$ | 2-position single |
| :---: | :---: |
| $\mathbf{2}$ | 2-position double |
| $\mathbf{3}$ | 3-position closed center |
| $\mathbf{4}$ | 3-position exhaust center |
| $\mathbf{5}$ | 3-position pressure center |
| A | 4-position dual 3-port valve (N.C./N.C.) |
| $\mathbf{B}$ | 4-position dual 3-port valve (N.O./N.O.) |
| $\mathbf{C}$ | 4-position dual 3-port valve (N.C./N.O.) |

Seal type
0 $\quad$ Rubber seal

Back pressure check valve (Built-in valve type)

| Nil | None |
| :---: | :---: |
| $\mathbf{H}$ | Built-in |

* The built-in valve type back pressure check valve is not available for the 3-position type or the SY7000.
5 Pilot valve option

| Nil | Standard $(0.7 \mathrm{MPa})$ |
| :---: | :---: |
| B | Quick response type $(0.7 \mathrm{MPa})$ |

6 Coil type

| Nil | Standard |
| :---: | :---: |
| $\mathbf{T}$ | With power-saving circuit (Continuous duty type) |

* Be sure to select the power-saving circuit type if the valve is to be continuously energized for long periods of time.
* Be careful of the energizing time when the power-saving circuit is selected. For details, refer to the standard product catalog.


## (9) Manual override


(10) A, B port size

Thread piping

| Symbol | Port size | Applicable series |
| :---: | :---: | :---: |
| $\mathbf{0 2}$ | $1 / 4$ | SY7000 |

One-touch fitting (Metric)

| Symbol | A, B port | SY5000 | SY7000 |
| :---: | :---: | :---: | :---: |
| C4 | $\varnothing 4$ |  | - |
| C6 | $\varnothing 6$ |  | $\bigcirc$ |
| C8 | $\varnothing 8$ |  | $\bigcirc$ |
| C10 | $\varnothing 10$ | - | $\bigcirc$ |
| C12 | $\varnothing 12$ | - | $\bigcirc$ |

## (11) Thread type

| Nil | Rc |
| :---: | :---: |
| $\mathbf{F}$ | G |
| $\mathbf{N}$ | NPT |
| $\mathbf{T}$ | NPTF |

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Plug-in Connector Connecting Base 

# EX260 25A-SY5000/7000 Series 

## How to Order Manifolds



- Series compatible with secondary batteries


| 5 | SY5000 |
| :---: | :---: |
| $\mathbf{7}$ | SY7000 |
|  |  |
| 2 Type |  |
| 10 | Side ported |
| 11 | Bottom ported |


| 3 SI unit specifications |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Symbol (Out | put polarity) |  | Nun |  |
| Positive common (NPN) | Negative common (PNP) | Protocol | $\left\lvert\, \begin{gathered} \text { of } \\ \text { outputs } \end{gathered}\right.$ | $\left\|\begin{array}{c} \text { Communication } \\ \text { comector } \end{array}\right\|$ |
| 0 |  | Without SI unit |  |  |
| QA | QAN | DeviceNet ${ }^{\text {® }}$ | 32 | M12 |
| QB | QBN |  | 16 |  |
| NA | NAN | PROFIBUS DP | 32 | M12 |
| NB | NBN |  | 16 |  |
| VA | VAN | CC-Link | 32 | M12 |
| VB | VBN |  | 16 |  |
| DA | DAN | EtherCAT | 32 | M12 |
| DB | DBN |  | 16 |  |
| FA | FAN | PROFINET | 32 | M12 |
| FB | FBN |  | 16 |  |
| EA | EAN | EtherNet/IPTM | 32 | M12 |
| EB | EBN |  | 16 |  |
| - | KAN | IO-Link | 32 | M12 |

* Without SI unit, the output polarity is decided by the SI unit used. Ensure a match with the common specification of the valves to be used.
* DIN rail cannot be mounted without SI unit.
* For IO-Link, only the negative common (PNP) type and the 32 outputs type are available.

(4)
Valve stations
In the case of the 32-output SI unit

| Symbol | Stations | Note |
| :---: | :---: | :---: |
| 02 | 2 2stions | Double wiring*1 |
| ! | $\vdots$ |  |
| 16 | 16 staions |  |
| 02 | 2staions | Specified layout*2 <br> (Up to 32 solenoids available) |
| 24 | $\vdots$ |  |

In the case of the 16-output SI unit

| Symbol | Stations | Note |
| :---: | :---: | :---: |
| 02 | 2sations | Double wiring*1 |
| ! | $\vdots$ |  |
| 08 | 8staions |  |
| 02 | 2 2stions | Specified layout*2 <br> (Up to 16 solenoids available) |
| : | $\vdots$ |  |

*1 Double wiring: 2-position single, 2-position double, 3-position, and 4 -position valves can be used on all manifold stations.
The use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.
*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet.
(Note that 2-position double, 3 -position, and 4-position valves cannot be used where single wiring has been specified.)

* The blanking plate assembly is included in this number.
* For the model without the SI unit (SO), note the maximum number of solenoids of the SI unit that will be mounted. If the layout is specified, indicate it on the manifold specification sheet.


## A, B port size (Metric)

## $5 \mathrm{P}, \mathrm{E}$ port entry

| U | U side (2 to 10 stations) |
| :---: | :---: |
| D | D side (2 to 10 stations) |
| B | Both sides (2 to 24 stations) |

6 SUP/EXH block assembly

| Nil | Internal pilot |
| :---: | :---: |
| $\mathbf{S}$ | Internal pilot, Built-in silencer |
| R | External pilot |

* The 3/5(E) port is plugged for the builtin silencer type.
* When the built-in silencer type is used, keep the exhaust port from coming into direct contact with water or other liquids.


## 8 Mounting



* Enter the number of stations inside $\square$ when it is larger than the number of valve stations. (Refer to "DIN Rail Option" below.)
* Only direct mounting is available for the type 11 bottom-ported type.


## DIN Rail Option

| Nil | Direct mounting |  |
| :---: | :---: | :---: |
| $\mathbf{0}$ | Without DIN rail (with bracket) |  |
| $\mathbf{3}$ | For 3 stations | Specify a longer rail <br> Span the total length of |
| $\mathbf{\vdots}$ | $\vdots$ | than the |
| $\mathbf{2 4}$ | For 24 stations | specified stations. |


*1 Indicate the sizes on the manifold specification sheet for "CM."

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

[^6]

| (1) Series |
| :--- |
| 5 SY5000 <br> 7 SY7000 |


| 2 Type of actuation |  |
| :---: | :---: |
| 1 | 2-position single |
| 2 | 2-position double |
| 3 | 3 -position closed center |
| 4 | 3 -position exhaust center |
| 5 | 3 -position pressure center |
| A | 4-position dual 3-port valve (N.C./N.C.) |
| B | 4-position dual 3-port valve (N.O./N.O.) |
| C | 4-position dual 3-port valve (N.C./N.O.) |

Seal type

## 0

## Pilot type

| Nil | Internal pilot |
| :---: | :---: |
| $\mathbf{R}$ | External pilot |

* When selecting the external pilot specification for the 4-position dual 3-port valve, pay attention to the pilot pressure. For details, refer to the valve specifications of the standard SY series product in the Web Catalog.

Back pressure check valve (Built-in valve type)

| Nil | None |
| :---: | :---: |
| $\mathbf{H}$ | Built-in |

* The built-in valve type back pressure check valve is not available for the 3 -position type or the SY7000.
6 Pilot valve option

| Nil | Standard $(0.7 \mathrm{MPa})$ |
| :---: | :---: |
| B | Quick response type $(0.7 \mathrm{MPa})$ |

## 7 Coil type

Nil Standard T With power-saving circuit (Continuous duty type)

* Be sure to select the power-saving circuit type if the valve is to be continuously energized for long periods of time.
* Be careful of the energizing time when the power-saving circuit is selected. For details, refer to the standard product catalog.


## 8 Rated voltage

## 5

524 VDC

## (9) Light/surge voltage suppressor

 and common specification| R | With surge voltage suppressor <br> (Non-polar) |
| :---: | :---: |
| U | With light/surge voltage suppressor <br> (Non-polar) |
| S | With surge voltage suppressor <br> (Positive common) |
| Z | With light/surge voltage suppressor <br> (Positive common) |
| NS | With surge voltage suppressor <br> (Negative common) |
| NZ | With light/surge voltage suppressor <br> (Negative common) |

* Select "R," "U," "S," or "Z" for the valve when the SI unit output polarity is Nil (positive common). Select "R," "U," "NS," or " $N Z$ " for the valve when the SI unit output polarity is N (negative common).
* Only "Z" and "NZ" types are available with a power-saving circuit.



## Plug-in Connector Connecting Base

How to Order Manifolds


Series compatible with secondary batteries


SI unit specifications
(Output polarity, Protocol, Number of outputs, Communication comnector)

| Symbol (Output polarity) |  | Protocol | $\begin{gathered} \text { Number } \\ \text { of } \\ \text { outputs } \end{gathered}$ | $\begin{gathered} \text { Cannuraicion } \\ \text { ammein } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{\|c\|} \hline \text { Positive common } \\ \text { (NPN) } \end{array}$ | Negative common (PNP) |  |  |  |
| 0 |  | Without SI unit |  |  |
| QA | QAN | DeviceNet® | 32 | M12 |
| QB | QBN |  | 16 |  |
| NA | NAN | $\underset{\text { DP }}{\substack{\text { PROFIBUS }}}$ | 32 | M12 |
| NB | NBN |  | 16 |  |
| VA | VAN | CC-Link | 32 | M12 |
| VB | VBN |  | 16 |  |
| DA | DAN | EtherCAT | 32 | M12 |
| DB | DBN |  | 16 |  |
| FA | FAN | PROFINET | 32 | M12 |
| FB | FBN |  | 16 |  |
| EA | EAN | EtherNet/PTM | 32 | M12 |
| EB | EBN |  | 16 |  |
| - | KAN | IO-Link | 32 | M1 |

* Without SI unit, the output polarity is decided by the SI unit used. Ensure a match with the common specification of the valves to be used.
* DIN rail cannot be mounted without SI unit.
* For IO-Link, only the negative common (PNP) type and the 32 outputs type are available.

(3)
Valve stations
In the case of the 32-output SI unit

| Symbol | Stations | Note |
| :---: | :---: | :---: |
| 02 | 2 2stions | Double wiring*1 |
| ! | $\vdots$ |  |
| 16 | 16 stions |  |
| 02 | 2sations | Specified layout*2 <br> (Up to 32 solenoids available) |
| 4 | $\vdots$ |  |

In the case of the 16-output SI unit

| Symbol | Stations | Note |
| :---: | :---: | :---: |
| 02 | 2 2stions | Double wiring*1 |
| ! | $\vdots$ |  |
| 08 | 8staions |  |
| 02 | 2 2stions | Specified layout*2 <br> (Up to 16 solenoids available) |
| 16 | $\frac{\vdots}{16 \text { staioms }}$ |  |

*1 Double wiring: 2-position single,
2-position double, 3 -position, and 4 -position valves can be used on all manifold stations.
The use of a 2 -position single solenoid will result in an unused control signal.
If this is not desired, order with a specified layout.
*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet.
(Note that 2-position double, 3 -position, and 4-position valves cannot be used where single wiring has been specified.)

* The blanking plate assembly is included in this number.
* For the model without the SI unit (SO), note the maximum number of solenoids of the SI unit that will be mounted. If the layout is specified, indicate it on the manifold specification sheet.


## (4) P, E port entry

| $\mathbf{U}^{* 1}$ | U side (2 to 10 stations) |
| :---: | :---: |
| $\mathbf{D}^{* 1}$ | D side (2 to 10 stations) |
| B | Both sides (2 to 24 stations) |

*1 5 For type "S," SUP/EXH block assembly with a built-in silencer, choose "U" or "D" for P port entry.

5 SUP/EXH block assembly Nil Internal pilot S Internal pilot, Built-in silencer

* The P and E ports are only available on the $U$ and $D$ sides for the built-in silencer type. The $3 / 5(E)$ port is plugged. The silencer exhaust port is located on the opposite side of the $P$ and E port entry. (Example: When the $P$ and $E$ port entry is on the $D$ side, the silencer exhaust port is on the $U$ side.)
* When the built-in silencer type is used, keep the exhaust port from coming into direct contact with water or other liquids.


## 6 Mounting

| NiI | Direct mounting |  |
| :---: | :---: | :---: |
| D | DIN rail mounting (With DIN rail) |  |
| D0 | DIN rail mounting (Without DIN rail) |  |
| D3 | For 3 stations | Specify a length |
| $\vdots$ | $\vdots$ | longer than that of |
| D24 | For 24 stations | the standard rail. |

* If the DIN rail must be mounted without an SI unit, select DO. Then, refer to L3 of the dimensions for the DIN rail length and order separately.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

[^7]

(2) Type of actuation

| $\mathbf{1}$ | 2-position single |
| :---: | :---: |
| $\mathbf{2}$ | 2-position double |
| $\mathbf{3}$ | 3-position closed center |
| $\mathbf{4}$ | 3-position exhaust center |
| $\mathbf{5}$ | 3-position pressure center |
| A | 4-position dual 3-port valve (N.C./N.C.) |
| $\mathbf{B}$ | 4-position dual 3-port valve (N.O./N.O.) |
| $\mathbf{C}$ | 4-position dual 3-port valve (N.C./N.O.) |

Seal type

Back pressure check valve (Built-in valve type)

| Nil | None |
| :---: | :---: |
| $\mathbf{H}$ | Built-in |

* The built-in valve type back pressure check valve is not available for the 3 -position type or the SY7000.


## (5) Pilot valve option

il | Standard ( 0.7 MPa ) |
| :---: |

Standard ( 0.7 MPa )
B Quick response type ( 0.7 MPa )
6 Coil type

| Nil | Standard |
| :---: | :---: |
| $\mathbf{T}$ | With power-saving circuit (Continuous duty type) |

* Be sure to select the power-saving circuit type if the valve is to be continuously energized for long periods of time.
* Be careful of the energizing time when the power-saving circuit is selected. For details, refer to the standard product catalog.

7 Rated voltage

| 5 | 24 VDC |
| :--- | :--- |

8 Light/surge voltage suppressor and common specification

| R | With surge voltage suppressor <br> (Non-polar) |
| :---: | :---: |
| U | With light/surge voltage suppressor <br> (Non-polar) |
| S | With surge voltage suppressor <br> (Positive common) |
| $\mathbf{Z}$ | With light/surge voltage suppressor <br> (Positive common) |
| NS | With surge voltage suppressor <br> (Negative common) |
| NZ | With <br> light/surge voltage suppressor <br> (Negative common) |

* Select "R," "U," "S," or "Z" for the valve when the SI unit output polarity is Nil (positive common). Select "R," "U," "NS," or "NZ" for the valve when the SI unit output polarity is N (negative common).
* Only " Z " and " NZ " types are available with a power-saving circuit.


## (9) Manual override



10 A, B port size
Thread piping

| Symbol | Port size | Applicable series |
| :---: | :---: | :---: |
| $\mathbf{0 2}$ | $1 / 4$ | SY7000 |

One-touch fitting (Metric)

| Symbol | A, B port | SY5000 | SY7000 |
| :---: | :---: | :---: | :---: |
| C4 | $\varnothing 4$ |  | - |
| C6 | $\varnothing 6$ |  | $\bigcirc$ |
| C8 | $\varnothing 8$ |  | $\bigcirc$ |
| C10 | $\varnothing 10$ | - | $\bigcirc$ |
| C12 | $\varnothing 12$ | - | $\bigcirc$ |

11 Thread type

| Nil | Rc |
| :---: | :---: |
| F | G |
| $\mathbf{N}$ | NPT |
| $\mathbf{T}$ | NPTF |

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## Plug-in Connector Connecting Base

# EX126 <br> 25A-SY50007000 Series 

## How to Order Manifolds



Series compatible with secondary batteries
Series

| $\mathbf{5}$ | SY5000 |
| :--- | :--- |
| $\mathbf{7}$ | SY7000 |


(3) SI unit

0
V Without SI unit

* Only a terminal bositive common NPN) for the valve without SI unit.
For SI unit part numbers, refer to page 53.


## Valve stations

| Symbol | Staitions |
| :---: | :---: |
| $\mathbf{0 2}$ | 2staings |
| $\vdots$ | $\vdots$ |
| $\mathbf{0 8}$ | 8stations |
| $\mathbf{0 2}$ | 2souble wiring*1 |
| $\vdots$ | $\vdots$ |
| $\mathbf{1 6}$ | 16stions |
|  | Specified layout*2 |
| (Up to 16 solenoids available) |  |

*1 Double wiring: 2-position single, 2-position double, 3-position, and 4 -position valves can be used on all manifold stations.
The use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.
*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3 -position, and 4 -position valves cannot be used where single wiring has been specified.)

* The blanking plate assembly is included in this number.


## $5 \mathrm{P}, \mathrm{E}$ port entry

| $\mathbf{U}$ | U side (2 to 10 stations) |
| :---: | :---: |
| $\mathbf{D}$ | D side (2 to 10 stations) |
| $\mathbf{B}$ | Both sides (2 to 16 stations) |

6 SUP/EXH block assembly

| Nil | Internal pilot |
| :---: | :---: |
| S | Internal pilot, Built-in silencer |
| R | External pilot |

* The $3 / 5$ (E) port is plugged for the builtin silencer type.
* When the built-in silencer type is used, keep the exhaust port from coming into direct contact with water or other liquids.

* Enter the number of stations inside $\square$ when it is larger than the number of valve stations. (Refer to "DIN Rail Option" below.)
* Only direct mounting is available for the type 11 bottom-ported type.


## DIN Rail Option

| Nil | Direct mounting |
| :---: | :---: |
| $\mathbf{0}$ | Without DIN rail (with bracket) |
| $\mathbf{3}$ | For 3 stations |
| $\vdots$ | $\vdots$ |
| Specify a longer rail |  |
| than the total length of |  |
| $\mathbf{1 6}$ | For 16 stations |
| specified stations. |  |

*1 Indicate the sizes on the manifold specification sheet for "CM."

* The direction of P, E port fittings is the same as for the A, B port.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

For details on the EX126 Integrated Type (For Output) Serial Transmission System, refer to the Web Catalog and the Operation Manual. For the part numbers of the SI units to be mounted, refer to page 53 in this catalog. Please download the Operation Manual via the SMC website: https://www.smcworld.com


| 1 Series |
| :--- |
| S SY5000 <br> 7 SY7000 <br> 7  |

2 Type of actuation

| $\mathbf{1}$ | 2-position single |
| :---: | :---: |
| $\mathbf{2}$ | 2-position double |
| $\mathbf{3}$ | 3-position closed center |
| $\mathbf{4}$ | 3-position exhaust center |
| $\mathbf{5}$ | 3-position pressure center |
| A | 4-position dual 3-port valve (N.C./N.C.) |
| B | 4-position dual 3-port valve (N.O./N.O.) |
| C | 4-position dual 3-port valve (N.C./N.O.) |

Seal type
0 Rubber seal


* When selecting the external pilot specification for the 4-position dual 3-port valve, pay attention to the pilot pressure. For details, refer to the valve specifications of the standard SY series product in the Web Catalog.

Back pressure check valve (Built-in valve type)


* The built-in valve type back pressure check valve is not available for the 3 -position type or the SY7000.
6 Pilot valve option

| Nil | Standard $(0.7 \mathrm{MPa})$ |
| :---: | :---: |
| B | Quick response type $(0.7 \mathrm{MPa})$ |

## 7 Coil type

Nil Standard
T With power-saving circuit (Continuous duty type)

* Be sure to select the power-saving circuit type if the valve is to be continuously energized for long periods of time.
* Be careful of the energizing time when the power-saving circuit is selected. For details, refer to the standard product catalog.


## 8 Rated voltage

| 5 | 24 VDC |
| :--- | :--- |

(9) Light/surge voltage suppressor and common specification

| $\mathbf{R}$ | With surge voltage suppressor <br> (Non-polar) |
| :---: | :---: |
| $\mathbf{U}$ | With light/surge voltage suppressor <br> (Non-polar) |
| $\mathbf{S}$ | With surge voltage suppressor <br> (Positive common) |
| $\mathbf{Z}$ | With light/surge voltage suppressor <br> (Positive common) |

* Only "Z" type is available with a powersaving circuit.


5 24 VDC | R | $\begin{array}{c}\text { With surge voltage suppressor } \\ \text { (Non-polar) }\end{array}$ |
| :---: | :---: |
| U | $\begin{array}{c}\text { With light/surge voltage suppressor } \\ \text { (Non-polar) }\end{array}$ |
| S | $\begin{array}{c}\text { With surge voltage suppressor } \\ \text { (Positive common) }\end{array}$ |
| Z | $\begin{array}{c}\text { With light/surge voltage suppressor } \\ \text { (Positive common) }\end{array}$ |

# Plug-in Connector Connecting Base <br> Ex126 <br> Type 12 <br> Top Ported 

How to Order Manifolds


Series compatible with secondary batteries

| (1) Series |
| :--- |
| 5 SY5000 <br> 7 SY7000 |

2) SI unit

0
V $\quad$ CC-Link (Positive common NPN)

* Only a terminal block plate is mounted for the valve without SI unit.
For SI unit part numbers, refer to page 53.
3 Valve stations

| Symbo | Stations | Note |
| :---: | :---: | :---: |
| $\mathbf{0 2}$ | 2 stations |  |
| $\vdots$ | $\vdots$ | Double wiring*1 |
| $\mathbf{0 8}$ | 8stations |  |
| $\mathbf{0 2}$ | 2stations | Specified layout*2 |
| $\vdots$ | $\vdots$ | (Up to 16 solenoids available) |
| $\mathbf{1 6}$ | 16 sstaions |  |

*1 Double wiring: 2-position single, 2-position double, 3-position, and 4 -position valves can be used on all manifold stations.
The use of a 2 -position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.
*2 Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3-position, and 4 -position valves cannot be used where single wiring has been specified.)

* The blanking plate assembly is included in this number.


## (4) P, E port entry

| $\mathbf{U} * 1$ | U side (2 to 10 stations) |
| :---: | :---: |
| $\mathbf{D} * 1$ | D side (2 to 10 stations) |
| B | Both sides (2 to 16 stations) |

*15 For type "S," SUP/EXH block assembly with a built-in silencer, choose "U" or "D" for P port entry.

5 SUP/EXH block assembly
Nil Internal pilot S Internal pilot, Built-in silencer

* The P and E ports are only available on the $U$ and $D$ sides for the built-in silencer type. The $3 / 5$ (E) port is plugged. The silencer exhaust port is located on the opposite side of the $P$ and E port entry. (Example: When the $P$ and $E$ port entry is on the $D$ side, the silencer exhaust port is on the $U$ side.)
* When the built-in silencer type is used, keep the exhaust port from coming into direct contact with water or other liquids.

6 Mounting

| Nil | Direct mounting |  |
| :---: | :---: | :---: |
| D | DIN rail mounting (With DIN rail) |  |
| D0 | DIN rail mounting (Without DIN rail) |  |
| D3 | For 3 stations | Specify a length <br> longer than that of |
| $\vdots$ | $\vdots$ | long |
| D16 | For 16 stations | the standard rail. |

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

> For details on the EX126 Integrated Type (For Output) Serial Transmission System, refer to the Web Catalog and the Operation Manual. For the part numbers of the SI units to be mounted, refer to page 53 in this catalog. Please download the Operation Manual via the SMC website: https://www.smcworld.com


2 Type of actuation

| $\mathbf{1}$ | 2-position single |
| :---: | :---: |
| $\mathbf{2}$ | 2-position double |
| $\mathbf{3}$ | 3-position closed center |
| $\mathbf{4}$ | 3-position exhaust center |
| $\mathbf{5}$ | 3-position pressure center |
| A | 4-position dual 3-port valve (N.C./N.C.) |
| $\mathbf{B}$ | 4-position dual 3-port valve (N.O./N.O.) |
| $\mathbf{C}$ | 4-position dual 3-port valve (N.C./N.O.) |

Seal type
0
Rubber seal
Back pressure check valve (Built-in valve type)

| Nil | None |
| :---: | :---: |
| $\mathbf{H}$ | Built-in |

* The built-in valve type back pressure check valve is not available for the 3 -position type or the SY7000.


## 5 Pilot valve option

| Nil | Standard (0.7 MPa) |
| :---: | :---: |
| $\mathbf{B}$ | Quick response type $(0.7 \mathrm{MPa})$ |

## Manifold Options

6 Coil type

| Nil | Standard |
| :---: | :---: |
| $\mathbf{T}$ | With power-saving circuit (Continuous duty type) |

* Be sure to select the power-saving circuit type if the valve is to be continuously energized for long periods of time.
* Be careful of the energizing time when the power-saving circuit is selected. For details, refer to the standard product catalog.


## 7 Rated voltage <br> $5 \quad 24$ VDC

( Light/surge voltage suppressor and common specification

| $\mathbf{R}$ | With surge voltage suppressor (Non-polar) |
| :---: | :--- |
| $\mathbf{U}$ | With light/surge voltage suppressor (Non-polar) |
| $\mathbf{S}$ | With surge voltage suppressor (Positive common) |
| $\mathbf{Z}$ | With light/surge voltage suppressor (Positive common) |

* Only "Z" type is available with a power-saving circuit.


## (9) Manual override



10 A, B port size
Thread piping

| Symbol | Port size | Applicable series |
| :---: | :---: | :---: |
| $\mathbf{0 2}$ | $1 / 4$ | SY7000 |

One-touch fitting (Metric)

| Symbol | A, B port | SY5000 | SY7000 |
| :---: | :---: | :---: | :---: |
| C4 | $\varnothing 4$ | $\bigcirc$ | - |
| C6 | $\varnothing 6$ | $\bigcirc$ | $\bigcirc$ |
| C8 | $\varnothing 8$ | $\bigcirc$ | $\bigcirc$ |
| C10 | $\varnothing 10$ | - | $\bigcirc$ |
| C12 | $\varnothing 12$ | - | $\bigcirc$ |

## (11) Thread type

| Nil | Rc |
| :---: | :---: |
| $\mathbf{F}$ | G |
| $\mathbf{N}$ | NPT |
| $\mathbf{T}$ | NPTF |

* The 25A- series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catalog.



## Blanking plate assembly

(With mounting screw)
Used when valve additions are expected or for maintenance. A structure is in place on the blanking plate to prevent the mounting screws from sliding.


How to Order Blanking Plate Assembly


| $\mathbf{1}$ | For plug-in connector connecting base |
| :--- | :--- |

* The 25A- series specifications and dimensions are the same as those of the standard model.


## 25A-SY5000/7000 Series

SI Unit Part Nos.

| Description | SI unit part no. | Note |
| :---: | :---: | :---: |
| EX260 SI unit | EX260-SPR1-X117 | PROFIBUS DP M12 connector, 32 outputs, Negative common (PNP) |
|  | EX260-SPR2-X117 | PROFIBUS DP M12 connector, 32 outputs, Positive common (NPN) |
|  | EX260-SPR3-X117 | PROFIBUS DP M12 connector, 16 outputs, Negative common (PNP) |
|  | EX260-SPR4-X117 | PROFIBUS DP M12 connector, 16 outputs, Positive common (NPN) |
|  | EX260-SDN1-X117 | DeviceNet ${ }^{\circledR}$ M12 connector, 32 outputs, Negative common (PNP) |
|  | EX260-SDN2-X117 | DeviceNet ${ }^{\circledR}$ M12 connector, 32 outputs, Positive common (NPN) |
|  | EX260-SDN3-X117 | DeviceNet ${ }^{\circledR}$ M12 connector, 16 outputs, Negative common (PNP) |
|  | EX260-SDN4-X117 | DeviceNet ${ }^{\oplus}$ M12 connector, 16 outputs, Positive common (NPN) |
|  | EX260-SEC1-X117 | EtherCAT M12 connector, 32 outputs, Negative common (PNP) |
|  | EX260-SEC2-X117 | EtherCAT M12 connector, 32 outputs, Positive common (NPN) |
|  | EX260-SEC3-X117 | EtherCAT M12 connector, 16 outputs, Negative common (PNP) |
|  | EX260-SEC4-X117 | EtherCAT M12 connector, 16 outputs, Positive common (NPN) |
|  | EX260-SMJ1-X117 | CC-Link M12 connector, 32 outputs, Negative common (PNP) |
|  | EX260-SMJ2-X117 | CC-Link M12 connector, 32 outputs, Positive common (NPN) |
|  | EX260-SMJ3-X117 | CC-Link M12 connector, 16 outputs, Negative common (PNP) |
|  | EX260-SMJ4-X117 | CC-Link M12 connector, 16 outputs, Positive common (NPN) |
|  | EX260-SPN1-X117 | PROFINET M12 connector, 32 outputs, Negative common (PNP) |
|  | EX260-SPN2-X117 | PROFINET M12 connector, 32 outputs, Positive common (NPN) |
|  | EX260-SPN3-X117 | PROFINET M12 connector, 16 outputs, Negative common (PNP) |
|  | EX260-SPN4-X117 | PROFINET M12 connector, 16 outputs, Positive common (NPN) |
|  | EX260-SEN1-X117 | EtherNet/IP ${ }^{\text {TM }}$ M12 connector, 32 outputs, Negative common (PNP) |
|  | EX260-SEN2-X117 | EtherNet/IP ${ }^{\text {TM }}$ M12 connector, 32 outputs, Positive common (NPN) |
|  | EX260-SEN3-X117 | EtherNet/IP ${ }^{\text {TM }}$ M12 connector, 16 outputs, Negative common (PNP) |
|  | EX260-SEN4-X117 | EtherNet/IP ${ }^{\text {TM }}$ M12 connector, 16 outputs, Positive common (NPN) |
|  | EX260-SIL1-X117 | IO-Link M12 connector, 32 outputs, Negative common (PNP) |
| EX126 SI unit | EX126D-SMJ1-X220 | CC-Link (Terminal block, 16 outputs, Positive common (NPN)) |

Valve Mounting Screw Part No.

| Description | Part no. |  | Note |
| :---: | :---: | :---: | :---: |
|  | SY5000 | SY7000 |  |
| Round head combination screw | SY5000-223-1A | SY7000-224-1A | Part numbers shown on the left are for 10 valves. (SY5000: 20 pcs./SY7000: 30 pcs.) |

One-touch Fittings Part Nos.

| Port size |  |  | 25A-SY5000 | 25A-SY7000 |
| :---: | :---: | :---: | :---: | :---: |
| A, B port | Metric size | $\varnothing 4$ One-touch fitting (Straight type) | 90-VVQ1000-51A-C4 | - |
|  |  | ø6 One-touch fitting (Straight type) | 90-VVQ1000-51A-C6 | 25A-KJH06-17-X1607 |
|  |  | $ø 8$ One-touch fitting (Straight type) | 90-VVQ1000-51A-C8 | 90-VVQ2000-51A-C8 |
|  |  | ø10 One-touch fitting (Straight type) | - | 90-VVQ2000-51A-C10 |
|  |  | ø12 One-touch fitting (Straight type) | - | 25A-KQ2H12-17-X1607 |
| $P, E$ <br> port | Metric size | $ø 10$ One-touch fitting (Straight type) | 90-VVQ2000-51A-C10 | - |
|  |  | ø12 One-touch fitting (Straight type) | - | 90-VVQ4000-50B-C12 |

## Manifold Options

How to Order Individual SUP/EXH Spacer Assembly


Part numbers of mounting screw
SY5000: SY5000-223-2A (2 pcs. of each)
SY7000: SV1000-136-12A (3 pcs. of each)
How to Order Individual SUP/EXH Block Assembly
One-touch fitting Straight type


A-C6

- Port size (Metric)

| Symbol | P, E port | SY5000 | SY7000 |
| :---: | :---: | :---: | :---: |
| C4 | $\varnothing 4$ | $\bullet$ | - |
| C6 | $\varnothing 6$ | $\bullet$ | $\bullet$ |
| C8 | $\varnothing 8$ | $\bullet$ | $\bullet$ |
| C10 | $\varnothing 10$ | - | $\bullet$ |
| C12 | $\varnothing 12$ | - | $\bullet$ |

Manifold Parts Nos.
(A)Manifold block assembly


| $\mathbf{S}$ | Single wiring |
| :---: | :---: |
| $\mathbf{D}$ | Double wiring |

BSUP/EXH block assembly
(1)D-sub connector <IP40>

*2 It can be selected only if no symbol or " S " or " V " or "B" is selected for the pilot and the piping.
-Connector entry direction

| 1 | Upward |
| :---: | :---: |
| 2 | Lateral |

Clamp bracket assembly

| Series | Part no. |
| :---: | :---: |
| 25A-SY5000/7000 | 25A-SY50M-15-3A |

* Part number is for one assembly.
*1 For silencer (supply side) E port is plugged.
(2) Terminal block box

*4 It can be selected only if no symbol or " S " or " V " or " B " is selected for the pilot and the piping.


## Terminal block box housing assembly

## 25A - VVQC1000-T0-1

Clamp bracket assembly for terminal block box
25A - SY30M-15-6A

* Part number is for one assembly.

Clamp bracket assembly

| Series | Part no. |
| :---: | :---: |
| 25A-SY5000/7000 | 25A-SY50M-15-3A |

* Part number is for one assembly.


## 25A-SY5000/7000 Series

Manifold Parts Nos.
(3)Lead wire
 for the pilot and the piping.
*1 For silencer (supply side) E port is plugged.

Lead wire connector block assembly


Clamp bracket assembly

| Series | Part no. |
| :---: | :---: |
| 25A-SY5000/7000 | $25 \mathrm{~A}-\mathrm{SY} 50 \mathrm{M}-15-3 \mathrm{~A}$ |

* Part number is for one assembly.
(4) EX126

*4 It can be selected only if no symbol or "S" or "V" or "B" is selected for the pilot and the piping.


## Terminal block plate assembly

25A - VVQC1000-74A-2
Clamp bracket assembly

## Clamp bracket assembly for EX126 SI unit

| Series | Part no. |
| :---: | :---: |
| 25A-SY5000/7000 | 25A-SY50M-15-3A |

## 25A-SY30M-15-6A

* Part number is for one assembly.

Manifold Parts Nos.
(5)EX260

*5 For silencer (supply side) E port is plugged.

*6 It can be selected only if no symbol or " S " or " V " or " B " is selected for the pilot and the piping.

## Clamp bracket assembly

| Series | Part no. |
| :---: | :---: |
| 25A-SY5000/7000 | 25A-SY50M-15-3A |
|  | * Part number is for one assembly. |

Manifold Parts Nos.
© SUP/EXH block assembly
 for the pilot and the piping.
*1 For silencer (supply side) E port is plugged.

* "B" for the bottom-ported type can be selected for the SY5000/7000 series.

Cover assembly/Silencer cover assembly/Port block assembly for SUP/EXH (end) block assembly
Cover assembly
(Internal pilot)

Silencer cover assembly
(Internal pilot, Built-in silencer)

Port block assembly
(Side ported, External pilot)

Port block assembly
(Top ported, Internal pilot, for silencer (supply side))

Port block assembly (Top ported, Internal pilot)


■ Name plate bracket assembly (For SY5000 only)
25A - SY50M - 85-1A

## 25A-SY5000/7000 Series Valve Replacement Parts

How to Order Pilot Valves

## Pilot cover



25A-SY50V-25A

How to Order Port Block Assembly


## Body Cover Assembly

* Used when the top-ported type is changed to the side or bottom-ported type

|  |  | Part no. |  |
| :---: | :---: | :---: | :---: |
|  | Series <br> Standard (Valve mounting <br> screw without drop prevention) |  |  |
| SY5000 | Internal pilot | 25A-SY50V-16A | $25 A-S Y 50 V-16 A-1$ |
|  | External pilot | $25 A-S Y 50 V-16 A R$ | $25 A-S Y 50 V-16 A R-1$ |
| SY7000 | Internal pilot | $25 A-S Y 70 V-16 A$ | $25 A-S Y 70 V-16 A-1$ |
|  | External pilot | $25 A-S Y 70 V-16 A R$ | $25 A-S Y 70 V-16 A R-1$ |

[^8]
# 25A-SY5000/7000 Series <br> Made to Order 

Please contact SMC for detailed dimensions, specifications, and lead times.

## 1 With Safety Slide Locking Manual Override

A safety lock is added to the slide locking manual override.


## 2 2-Position Single Solenoid Valve with Built-in Return Spring

A 2-position single solenoid valve with a spring built into the main valve
The main valve returns to origin (the OFF position) via the spring when it is not pressurized.


Internal pilot type


External pilot type


## 25A-SY5000/7000 Series

## Plug-in Single Unit/Sub-plate Type [IP67 Compliant]

(Side ported, Bottom ported, Top ported)

How to Order
In the case of Valve + Sub-plate (Built-in valve type part no.)

(1) Series

| 5 | SY 5000 |
| :---: | :---: |
| 7 | SY7000 |


|  | of actua |  |
| :---: | :---: | :---: |
| 1 | 2-position | Single |
| 2 |  | Double |
| 3 | 3-position | Closed center |
| 4 |  | Exhaust center |
| 5 |  | Pressure center |
| A | 4-position dual 3-port | N.C./N.C. |
| B |  | N.O./N.O. |
| C |  | N.C./N.O. |


| (3) Seal type |  |
| :---: | :---: |
| 0 | Rubber seal |
| (4) Pilot type |  |
| Nil | Internal pilot |
| R | External pilot |
| (5) Back pressure check valve (Built-in valve type) |  |
| Nil | None |
| H | Built-in |

* The built-in valve type back pressure check valve is not available for the 3-position type or the SY7000.


## (6) Pilot valve option

| $\mathbf{N i l}$ | Standard $(0.7 \mathrm{MPa})$ |
| :---: | :---: |
| $\mathbf{B}$ | Quick response type $(0.7 \mathrm{MPa})$ |

7 Coil type

| $\mathbf{N i l}$ | Standard |
| :---: | :---: |
| $\mathbf{T}$ | With power saving circuit (Continuous duty type) |

* Be sure to select the power saving circuit type if the valve is to be continuously energized for long periods of time.
Be careful of the energizing time when the power saving circuit is selected. For details, refer to the standard product catalog.

| 8 Rated voltage |  |  |  |
| :---: | :---: | :---: | :---: |
| 5 | 24 VDC |  |  |
| 6 | 12 VDC |  |  |
| 9 Light/surge voltage suppressor and common specification |  |  |  |
| Symbol | With light | Surge voltage suppressor | Common specification |
| Nil | - | - | Non-polar |
| R | - | $\bigcirc$ |  |
| U | $\bigcirc$ |  |  |
| S | - |  | Positive common |
| Z | - |  |  |
| NS | - |  | Negative common |
| NZ | $\bigcirc$ |  |  |
| * Only "Z" and "NZ" types are available with a power saving circuit. |  |  |  |



11 A, B port size (* Top-ported valve only) Thread piping

| Symbol | Port size | Appli | ble series |
| :---: | :---: | :---: | :---: |
| 02 | 1/4 | SY7000 |  |
| Metric size (One-touch fitting) |  |  |  |
| Symbol | A, B port | SY5000 | SY7000 |
| C4 | $\varnothing 4$ | - | - |
| C6 | $\varnothing 6$ | $\bigcirc$ | $\bigcirc$ |
| C8 | $\varnothing 8$ | - | $\bigcirc$ |
| C10 | $\varnothing 10$ | - | - |
| C12 | $\varnothing 12$ | - | $\bigcirc$ |


| $12 \mathrm{~A}, \mathrm{~B}$ port thread type (Thread piping) |
| :---: |
| NiI |
| F |

13 Wiring specifications (Sub-plate) | WO | Without M12 connector cable |
| :--- | :--- |
| W5 | With M12 connector cable $(3000 \mathrm{~mm})$ |

* When ordering a product with M12 connector cable, the connector cable is included.

| 14 Port location (Sub-plate) |  |
| :---: | :---: |
| Nil | Side ported |
| $\mathbf{B}$ | Bottom ported |
| $\mathbf{V}$ *1 | Top ported (1P, $5 E A$, 3EB port: Side ported) |

*1 Only available for the valve piping type " 3 " top ported

15 Port size (Sub-plate)

| Symbol | Port size | Applicable series |
| :---: | :---: | :---: |
| $\mathbf{0 2}$ | $1 / 4$ | SY5000 |
| $\mathbf{0 3}$ | $3 / 8$ | SY7000 |

(16) Thread type (Sub-plate)

| $\mathbf{N i l}$ | Rc |
| :---: | :---: |
| F | G |

* The 25A- series specifications and dimensions are the same as those of the standard model.
* When mounting a special order (including Made-to-Order specification) valve or manifold option (spacer, etc.) on the sub-plate, add the valve part number or spacer part number under the sub-plate part number to place an order. For details, refer to the ordering example on page 61.


## 25A-SY5000/7000 Series

How to Order
In the case of Sub-plate (Sub-plate single unit part no.)


| (1) Series |  |
| :---: | :--- |
| 5 | SY 5000 |
| 7 | SY7000 |

## (2) Wiring specifications

WO $\quad$ Without M12 connector cable W5 With M12 connector cable ( 3000 mm )

* Refer to the table below for connector cable part numbers.
* When ordering a product with M12 connector cable, the connector cable is included.

3 Port location (Sub-plate)

| Nil | Side ported |
| :---: | :---: |
| B | Bottom ported |
| V | Top ported [1(P), 5(EA), 3(EB) port: Side ported] |

4 Port size (Sub-plate)

| Symbol | Port size | Applicable series |
| :---: | :---: | :---: |
| $\mathbf{0 2}$ | $1 / 4$ | SY5000 |
| $\mathbf{0 3}$ | $3 / 8$ | SY7000 |

How to Order when mounting a special order (including Made-to-Order specification) valve on the sub-plate (Ordering example: X350)

> 25A-SY50M-27-1-W5-02 $\cdots \cdots \cdot 1$ set (Sub-plate single unit part no.)
> *25A-SY5100-5U1-X350 $\cdots \cdots \cdots \cdot 1$ set (Built-in return spring specification)

Ordering example when mounting a manifold option (spacer, etc.)

```
25A-SY50M-27-1-W5-02\cdots.... 1 set (Sub-plate single unit part no.)
*25A-SY5400-5U1 ............... 1 set (3-position exhaust center part no.)
*25A-SY50M-39-1A-C6 ....... 1 set (Individual EXH spacer part no.)
```

Sub-plate Parts Nos.


# 5-Port Solenoid Valve Body Ported/Single Unit 

## How to Order



Light/surge voltage suppressor-


* "LN," "MN" type: with 2 sockets.
* "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C).
* Refer to the standard products for the lead wire length of $L$ and $M$ plug connectors and the connector assembly with cover for $L$ and $M$ plug connector.

Electrical entry for G, H, L, M

| Nil | Without light/surge <br> voltage suppressor |
| :---: | :---: |
| $\mathbf{S}$ | With surge <br> voltage suppressor |
| $\mathbf{Z}$ | With light/surge <br> voltage suppressor |
| R | With surge voltage suppressor <br> (Non-polar type) |
| $\mathbf{U}$ | With light/surge voltage suppressor <br> (Non-polar type) |

* There is no " S " type for AC mode, since a rectifier prevents surge voltage generation.
* For "R" and "U," DC voltage is only available.
* Power-saving circuit is only available in the "Z" type.
* When placing an order for body ported solenoid valve as a single unit, mounting screw for manifold and gasket are not attached. Order them separately, if necessary.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# 5-Port Solenoid Valve Base Mounted/Single Unit 25A-SY5000/7000 Series 



* "LN," "MN" type: with 2 sockets.
* "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C).
* Refer to the standard products for the lead wire length of $L$ and $M$ plug connectors and the connector assembly with cover for $L$ and $M$ plug connector.
* The 25A-series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.


* The blanking plate assembly is included in this number.
* The 25A- series specifications and dimensions are the same as those of the standard model. However, the blanking plate assembly has different dimensions. Refer to page 71.

For details, refer to the Web Catalog.


One-touch fitting (Metric size)

| Symbol | Port size | Applicable series |
| :--- | :--- | :--- |
| C4 | One-touch fitting for ø4 | SY5000 |
| C6 | One-touch fitting for $\varnothing 6$ |  |
| C8 | One-touch fitting for ø8 |  |
| C8 | One-touch fitting for ø8 | SY7000 |
| C10 | One-touch fitting for $\varnothing 10$ |  |

- Manual override

| Nil | Non-locking push type |
| :---: | :---: |
| D | Push-turn locking slotted type |
| E | Push-turn locking lever type |

Light/surge voltage suppressor
Electrical entry for G, H, L, M

| For DC |  | For AC ( $50 / 60 \mathrm{~Hz}$ ) |  |
| :---: | :---: | :---: | :---: |
| 5 | 24 VDC | 1 | 100 VAC |
| 6 | 12 VDC | 2 | 200 VAC |
| V | 6 VDC | 3 | 110 VAC [115 VAC] |
| S | 5 VDC | 4 | 220 VAC [230 VAC] |
| R | 3 VDC |  |  |
| * DC specifications of type "D" and "Y" are only available with 12 and 24 VDC. <br> * AC-type models that are CE/UKCA-compliant have DIN terminals only. |  |  |  |


| Nil | Without light/surge voltage suppressor |
| :---: | :---: |
| $\mathbf{S}$ | With surge voltage suppressor |
| $\mathbf{Z}$ | With light/surge voltage suppressor |
| $\mathbf{R}$ | With surge voltage suppressor (Non-polar type) |
| $\mathbf{U}$ | With light/surge voltage suppressor (Non-polar type) |

* There is no " S " type for AC mode, since a rectifier prevents surge voltage generation.
* For "R" and " U, " DC voltage is only available.
* Power-saving circuit is only available in the "Z" type.

Electrical entry for D, Y

| Nil |  |
| :---: | :---: |
| $\mathbf{S}$ |  |
| $\mathbf{Z}$ |  |

Without light/surge voltage suppressor With surge voltage suppressor (Non-polar type) With light/surge voltage suppressor (Non-polar type)

* There is no " $S$ " type for AC mode, since a rectifier prevents surge voltage generation.

|  |  |  |  |
| :--- | :--- | :--- | :--- |
| Electrical entry |  |  |  |

* "LN," "MN" type: with 2 sockets.
* "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C).
* Refer to the standard products for the lead wire length of $L$ and $M$ plug connectors and the connector assembly with cover for L and M plug connector.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

Type 41/Compact type


Type 42/External pilot capable


* The 25A- series specifications and dimensions are the same as those of the standard model. However, the blanking plate assembly has different dimensions. Refer to page 71.

CE/UKCA-compliant

| $\mathbf{N i l}$ | - |
| :---: | :---: |
| $\mathbf{Q}$ | CE/UKCA-compliant |

* AC-type models that are CE/
UKCA-compliant have DIN
terminals only.
Manual override
Nil Non-locking push type
D Push-turn locking slotted type
E Push-turn locking lever type


| Nil | Internal pilot |
| :---: | :---: |
| $\mathbf{R}$ | External pilot |

## Coil specifications ${ }^{\circ}$

| Nil | Standard |
| :---: | :---: |
| $\mathbf{T}$ | With power-saving circuit <br> (24 VDC, 12 VDC only) |

* Power-saving circuit is not available in the case of "D" or "Y" type.

| For DC |  |
| :---: | :---: |
| $\mathbf{5}$ | 24 VDC |
| $\mathbf{6}$ | 12 VDC |
| $\mathbf{V}$ | 6 VDC |
| $\mathbf{S}$ | 5 VDC |
| $\mathbf{R}$ | 3 VDC |
| For AC (50/60Hz) |  |
| $\mathbf{1}$ | 100 VAC |
| $\mathbf{2}$ | 200 VAC |
| $\mathbf{3}$ | 110 VAC [115 VAC] |
| $\mathbf{4}$ | 220 VAC [230 VAC] |
| * DC specifications of type "D" |  |
| and "Y" are only available |  |
| with 12 and 24 VDC. |  |
| * AC-type models that are |  |
| CE/UKCA-compliant |  |
| have DIN terminals only. |  |

Light/surge voltage suppressor ------- -
Electrical entry for G, H, L, M

| Nil | Without light/surge voltage suppressor |
| :---: | :---: |
| $\mathbf{S}$ | With surge voltage suppressor |
| $\mathbf{Z}$ | With light/surge voltage suppressor |
| $\mathbf{R}$ | With surge voltage suppressor (Non-polar type) |
| $\mathbf{U}$ | With light/surge voltage suppressor (Non-polar type) |

* There is no " S " type for AC mode, since a rectifier prevents surge voltage generation
* For "R" and "U," DC voltage is only available.
* Power-saving circuit is only available in the "Z" type.

Electrical entry for D, Y

| Nil | Without light/surge voltage suppressor |
| :---: | :---: |
| $\mathbf{S}$ | With surge voltage suppressor (Non-polar type) |
| $\mathbf{Z}$ | With light/surge voltage suppressor (Non-polar type) |

* There is no "S" type for AC mode, since a rectifier prevents surge voltage generation.

Electrical entry

| 24, 12, 6, 5, 3 VDC/100, 110, 200, 220 VAC |  |  | $\begin{aligned} & 24,12 \text { VDC/ } \\ & 100,110,200, \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| Grommet | L plug connector | M plug connector | DIN terminal |
| G: With lead wire (Length 300 mm ) <br> H: With lead wire (Length 600 mm ) | L: With lead wire (Length 300 mm ) LN: Without lead wire LO: Without connector | M: With lead wire <br> (Length 300 mm ) <br> MN: Without lead wire <br> MO: Without connector | D: With connector <br> Y: With connector |

* "LN," "MN" type: with 2 sockets.
* "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C).
* Refer to the standard products for the lead wire length of $L$ and $M$ plug connectors and the connector assembly with cover for L and M plug connector.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## 25A-SY5000/7000 Series

How to Order Pilot Valve Assembly (With two mounting screws)


## DIN terminal type



* Do not replace V111 (G, H, L, M) to V115 (DIN terminal) and vice versa when replacing pilot valve assembly only.

[^9]One-touch Fittings Part Nos. for Body Ported

|  |  | Port size | 25A-SY5000 | 25A-SY7000 |
| :---: | :---: | :---: | :---: | :---: |
| Cylinder port | Metric size | $\varnothing 4$ One-touch fitting (Straight type) | 90-VVQ1000-51A-C4 |  |
|  |  | $ø 6$ One-touch fitting (Straight type) | 90-VVQ1000-51A-C6 |  |
|  |  | $\varnothing 8$ One-touch fitting (Straight type) | 90-VVQ1000-51A-C8 | 90-VVQ2000-51A-C8 |
|  |  | $\varnothing 10$ One-touch fitting (Straight type) |  | 90-VVQ2000-51A-C10 |

Gasket Assembly Part Nos.

| Valve model | Manifold type | 25A-SY5000 | 25A-SY7000 |
| :---: | :---: | :--- | :--- |
| Body ported | Type 20 | SY5000-GS-3 | SY7000-GS-3 |
| Base mounted | Type 41/42 | SY5000-GS-4 (-Q) | SY7000-GS-4 (-Q) |

* The gasket assembly includes 10 sets of a gasket and mounting screws.

Bracket Assembly Part Nos.

| Description | Part no. |
| :---: | :---: |
| Bracket (For F1) | 25A-SX ${ }_{7}^{5} 000-16-2 A$ (With mounting screw) |
| Bracket (For F2) | 25A-SX ${ }_{7}^{5} 000-16-1$ A (With mounting screw) |

Port Block Assembly Part Nos.


- A, B port size Thread piping

| Symbol | Port size | Applicable series |
| :---: | :---: | :---: |
| $\mathbf{0 1}$ | $1 / 8$ | $25 \mathrm{~A}-$ SY5000 |
| $\mathbf{0 2}$ | $1 / 4$ | $25 \mathrm{~A}-$ SY7000 |

One-touch fitting (Metric size)

| Symbol | Port size | Applicable series |
| :---: | :---: | :---: |
| C4 | One-touch fitting for $\varnothing 4$ |  |
| C6 | One-touch fitting for $\varnothing 6$ |  |
| C8 | One-touch fitting for $\varnothing 8$ |  |
| C8 | One-touch fitting for $\varnothing 8$ | 25A-SY7000 |
| C10 | One-touch fitting for $\varnothing 10$ |  |

## 25A-SY5000/7000 Series

## Manifold Options

## Blanking plate assembly

(Mounting screw: 2 pcs., with gasket)
It is used by attaching on the manifold block for being prepared for removing a valve for maintenance reasons or planning to mount a


How to Order


## $\triangle$ Caution

When mounted on a type 20 manifold, only the P port is plugged. In addition, it cannot be used for the type 20 CE/UKCA-compliant manifold.

## Dimensions

Manifold type/For type 20


Dimensions

| Series | Manifold <br> type | $\mathbf{W}_{\mathbf{1}}$ | $\mathbf{W}_{\mathbf{2}}$ | $\mathbf{H}_{1}$ | $\mathbf{H}_{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 25A-SY5000 | Type 20 | 33.3 | 69.6 | 44.5 | 15.2 |
| 25A-SY7000 | Type 20 | 39.4 | 76.4 | 41.1 | 18.3 |

Manifold type/For type 41/42


Dimensions

| Dimensions |  |  |  |  |  |  | [mm] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Series | Manifold <br> type | $\mathbf{W}$ | $\mathbf{H 1}$ | $\mathbf{H 2}$ |  |  |  |
| 25A-SY5000 | Type 41 | 106.4 | 51 | 21.7 |  |  |  |
|  | Type 42 | 107.6 | 56 | 26.7 |  |  |  |
| 25A-SY7000 | Type 42 | 118.1 | 55.6 | 32.8 |  |  |  |

# Plug-in Unit/Base Mounted F Kit (D-sub connector kit) 25A-VQ2000 Series 




| $\mathbf{1}$ | 2-position single |
| :---: | :---: |
| 2 | 2-position double |
| 3 | 3-position closed center |
| $\mathbf{4}$ | 3-position exhaust center |
| $\mathbf{5}$ | 3-position pressure center |
| A | 4-position dual port (N.C./N.C.) |
| B | 4-position dual port (N.O./N.O.) |
| C | 4-position dual port (N.C./N.O.) |


| Function |  |  |  |
| :---: | :---: | :---: | :---: |
| Symbol | Specifications | DC | AC |
| Nil | Standard | $(0.4 \mathrm{~W})$ <br> $\bigcirc$ | $\bigcirc$ |
| $\mathbf{B}$ | High speed <br> response type | $0.95 \mathrm{~W})$ <br> $\bigcirc$ | - |
| $\mathbf{N}$ | Negative <br> common | $\bigcirc$ | - |
| $\mathbf{R}$ | External <br> pilot | $\bigcirc$ | $\bigcirc$ |

* When two or more symbols are specified, indicate them alphabetically.

Coil voltage

|  | CE/UKCA-compliant |
| :---: | :---: |
| Hz$)$ | - |
| $\mathrm{Hz})$ | - |
| $\mathrm{Hz})$ | - |
| $\mathrm{Hz})$ | - |
|  | - |
|  | - |

## Caution

Use the standard (DC) specification when continuously energizing for long periods of time.

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Plug-in Unit/Base Mounted T Kit (Terminal block box kit) 25A-VQ2000 Series 



# Plug-in Unit/Base Mounted L Kit (Lead wire) 25A-VQ2000 Series 



* The 25A- series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catalog.


# Plug-in Unit/Base Mounted S Kit (Serial transmission) 25A-VQ2000 Series 

* Refer to "SI Unit Part Nos." when ordering the CE/ UKCA-compliant SI unit.


| Nil | - |
| :---: | :---: |
| $\mathbf{Q}$ | CE/UKCA-compliant |

* Refer to "SI Unit Part Nos." when ordering the CE/UKCA-compliant SI unit.

Max. 16 stations. (Specify a model with 9 to 16 stations by means of the manifold

Cylinder port ${ }^{6}$

| Option |  |
| :---: | :---: |
| Symbol | Option |
| $\mathbf{N i l}$ | None |
| $\mathbf{B * 1}$ | With back pressure check valve |
| $\mathbf{D}$ | DIN rail mounting |
| $\mathbf{D} \square * 2$ | DIN rail length specified <br> $(\square:$ Stations 02 to 16) |
| $\mathbf{K} * 3$ | Special wiring specifications <br> (Except double wiring) |
| $\mathbf{N}$ | With name plate |
| $\mathbf{R}^{* 4}$ | With external pilot <br> $\mathbf{S}$ |
| $\mathbf{W} * 5$ | Direct EXH outlet <br> with built-in silencer <br> Water-jet-proof (IP65) |

SI Unit Part Nos.

| Symbol | Protocol | SI unit part no. |
| :---: | :---: | :---: |
| $\mathbf{Q}$ | DeviceNet $^{\circledR}$ | EX120-SDN1-X220 |
| $\mathbf{V}$ | CC-Link | EX120-SMJ1-X220 |

1 Models with a suffix "-B" have check valves for prevention of back pressure at all manifold stations. When a back pressure check valve is desired, and is to be installed only in certain manifold stations, specify the mounting position by means of the manifold specification sheet.
2 The number of stations that may be displayed is longer than the manifold number of stations. Specify the wiring specifications by means of the manifold specification sheet
4 Indicate "R" for the valve with external pilot.
Refer to "Dimensions" of the standard products for SI unit and valve, in case of "W" (Dust-tight, Water-jet-proof).
When two or more symbols are specified, indicate them alphabetically.
Example) -BRS.
SI Unit Part Nos. (With option W)

| Symbol | Protocol | SI unit part no. |
| :---: | :---: | :---: |
| $\mathbf{Q}$ | DeviceNet $^{\circledR}$ | EX124D-SDN1-X220 $^{\text {P }}$ |
| $\mathbf{V}$ | CC-Link $^{2}$ | EX124D-SMJ1-X220 |

How to Order Valves

Series compatible with secondary batteries
anual override
Nil Non-locking push type (Tool required)

| - Enclosure |
| :--- |
| Nil |
| w |
| Dust-tight/Water-jet-proof type <br> (IP65) |

Type of actuationd

| $\mathbf{1}$ | 2-position single |
| :---: | :---: |
| 2 | 2-position double |
| $\mathbf{3}$ | 3-position closed center |
| $\mathbf{4}$ | 3-position exhaust center |
| $\mathbf{5}$ | 3-position pressure center |
| A | 4-position dual port (N.C./N.C.) |
| B | 4-position dual port (N.O./N.O.) |
| C | 4-position dual port (N.C./N.O.) |

Seal typed
1 Rubber seal
-Function

| Symbol | Specifications | DC |
| :---: | :---: | :---: |
| Nil | Standard | $(0.4 \mathrm{~W})$ <br> $\bigcirc$ |
| $\mathbf{B}$ | High speed <br> response type | $0.95 \mathrm{~W})$ <br> $\bigcirc$ |
| $\mathbf{N * 1}$ | Negative <br> common | $\bigcirc$ |
| $\mathbf{R * 1}$ | External <br> pilot | $\bigcirc$ |

-Coil voltage

| 5 | 24 VDC; <br> With indicator light/ <br> surge voltage suppressor |
| :---: | :---: |

1 External pilot and negative common specifications are
the same as standard products.
When two or more symbols are specified, indicate them alphabetically.

[^10]
# Sub-plate Single Unit 25A-VQ2000 Series 



* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## Manifold Options

## Blanking plate assembly

25A-VVQ2000V-10A-1

It is used by attaching on the manifold block for being prepared for removing a valve for maintenance reasons or planning to mount a spare valve, etc.


* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.
SI Unit Part Nos.

| Description | SI unit part no. |  |
| :---: | :--- | :--- |
| EX124 SI unit | EX124D-SMJ1-X220 | CC-Link |
|  | EX124D-SDN1-X220 | DeviceNete |
| EX120 SI unit | EX120-SMJ1-X220 | CC-Link (VQ2000/Without option "W") |
|  | EX120-SDN1-X220 | DeviceNet ${ }^{\circledR}$ (VQ2000/Without option "W") |

One-touch Fittings Part Nos.

| Port size |  | One-touch fitting part no. |  |
| :--- | :--- | :--- | :--- |
| Cylinder port | Metric size | $ø 4$ One-touch fitting (Straight type) | 90-VVQ1000-51A-C4 |
|  |  | $\varnothing 6$ One-touch fitting (Straight type) | 90-VVQ1000-51A-C6 |
|  |  | 90-VVQ1000-51A-C8 |  |
| 1 (P), 3 (R) port | Metric size | $\varnothing 10$ One-touch fitting (Straight type) | 90-VVQ2000-51A-C10 |

# Plug-in/Plug Lead: Single Unit Base Mounted 25A-VQ4000 Series 



How to Order Sub-plates


*Thread standard is the same as standard products.

* The 25A- series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catalog.


# Plug-in Unit/Base Mounted F Kit (D-sub connector kit) 25A-VQ4000 Series 

How to Order Manifolds


| 01 | 1 station |
| :---: | :---: |
| $\vdots$ | $\vdots$ |
| 18 | 18 stations |


| Cylinder port |  |
| :---: | :---: |
| C6 | With One-touch fitting for $\varnothing 6$ |
| C8 | With One-touch fitting for $\varnothing 8$ |
| C10 | With One-touch fitting for $\varnothing 10$ |
| C12 | With One-touch fitting for $\varnothing 12$ |
| $\mathbf{0 2}$ | Rc $1 / 4$ |
| $\mathbf{0 3}$ | Rc $3 / 8$ |
| B | Bottom ported Rc $1 / 4$ |
| CM | Mixed |

* As a semi-standard specification, the maximum number of stations can be increased by special wiring specifications.

*2 Only DC is available with Y.
*3 External pilot specifications are the same as standard products. Combination of external pilot and perfect interface is not possible.
* When two or more symbols are specified, indicate them alphabetically.
* The 25A- series specifications and dimensions are the same as those of the standard model.


## Plug-in Unit/Base Mounted T Kit (Terminal block box kit) 25A-VQ4000 Series




[^11]For details, refer to the Web Catalog.

## Plug-in Unit/Base Mounted L Kit (Lead wire cable) 25A-VQ4000 Series

How to Order Manifolds



* When two or more symbols are specified, indicate them alphabetically.
* The 25A- series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catalog.


# Plug-in Unit/Base Mounted S Kit (Serial transmission unit) 25A-VQ4000 Series 


*1 Specify the wiring specifications on the manifold specification sheet.

* When two or more symbols are specified, indicate them alphabetically. Example) -KW
SI unit

| $\mathbf{0}$ | Without SI unit |
| :---: | :---: |
| $\mathbf{Q}$ | DeviceNet $^{\circledR}$ |
| $\mathbf{V}$ | CC-Link |

-SI unit mounting position

| NiI | U side mounting |
| :---: | :---: |
| D | D sit |

D D side mounting

How to Order Valves
 Product Precautions 1" in the Web Catalog (VQ4000 series).
*2 Only DC is available with Y.
*3 External pilot specifications are the same as standard products. Combination of external pilot and perfect interface is not possible.

* When two or more symbols are specified, indicate them alphabetically.
* The 25A- series specifications and dimensions are the same as those of the standard model.


# Plug Lead Unit/Base Mounted C Kit (Connector kit) 25A-VQ4000 Series 

How to Order Manifolds


How to Order Valves

*1 When the unit is energized continuously, refer to "Specific Product Precautions 1" in the Web Catalog (VQ4000 series).
*2 Only DC is available with Y
*3 External pilot specifications are the same as standard products. Combination of external pilot and perfect interface is not possible.
When two or more symbols are specified, indicate them alphabetically.
now

* The 25A- series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catalog.


## 25A-VQ4000 Series

## Manifold Options

## Blanking plate assembly

25A-VVQ4000-10A-1 (Plug-in type) 25A-VVQ4000-10A-5 (Plug lead type)

It is used by attaching on the manifold block for being prepared for removing a valve for maintenance reasons or planning to mount a spare valve, etc.


* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## SI Unit Part Nos.

| Description | SI unit part no. | Note |
| :---: | :--- | :--- |
| EX124 SI unit | EX124D-SMJ1-X220 | CC-Link/D side mounting |
|  | EX124D-SDN1-X220 | DeviceNet $^{\circledR} / D$ side mounting |
|  | EX124U-SMJ1-X220 | CC-Link/U side mounting |
|  | EX124U-SDN1-X220 | DeviceNet ${ }^{\circledR} / \mathrm{U}$ side mounting |

One-touch Fittings Part Nos.

| Port size |  |  | One-touch fittings part no. |
| :---: | :---: | :---: | :---: |
| Cylinder port | Metric size | ø6 One-touch fitting (Straight type) | 90-VVQ4000-50B-C6 |
|  |  | $\varnothing 8$ One-touch fitting (Straight type) | 90-VVQ4000-50B-C8 |
|  |  | ø10 One-touch fitting (Straight type) | 90-VVQ4000-50B-C10 |
|  |  | ø12 One-touch fitting (Straight type) | 90-VVQ4000-50B-C12 |

## Plug-in Unit 25A-SQ2000 Series

How to Order Manifolds

*1 The maximum number of stations should not be more than the maximum number of solenoids. (The number of solenoids are counted as: 1 for single solenoids and 2 for type $3 P$ and $4 P$ double solenoids.)
*2 Refer to the Web Catalog for the details of EX140 integrated-type (for output) serial transmission system. Refer to "SI unit part nos." below when ordering the CE/UKCA-compliant SI unit.

## SI unit part nos.

| Symbol | Protocol type | SI unit part no. | Page |
| :--- | :--- | :---: | :---: |
| SDQ | DeviceNet ${ }^{\circledR}$ | EX140-SDN1-X220 | 88 |
| SDV | CC-Link $^{2}$ | EX140-SMJ1-X220 |  |

## Blanking plate assembly

* The 25A- series specifications and dimensions are the same as those of the standard model.



## - Port plug mounting port

*1 For double solenoid specification, the function symbol below is "D."

*1 Can be changed to side ported configuration.
*1 "D" is specified for 2-position double.
*2 For L kit, when the manifold specifies negative common, the valve common should also be negative.
*3 Except dual 3-port valves.

* When two or more symbols are specified, indicate them alphabetically.

| Coil voltage |  |
| :---: | :---: |
| $\mathbf{5}$ | 24 VDC |
| $\mathbf{6}$ | 12 VDC |

* Light/Surge voltage suppressor is built-in.
* S kit: 24 VDC only
- Manual override



## SI Unit Part Nos.

| Description | SI unit part no. | Note |
| :---: | :---: | :---: |
| EX140 SI unit | EX140-SMJ1-X220 | CC-Link |
|  | EX140-SDN1-X220 | DeviceNet ${ }^{\circledR}$ |

## One-touch Fittings Part Nos.

| Port size |  | One-touch fittings part no. |  |
| :--- | :--- | :--- | :--- |
| Cylinder port | Metric size |  | 90-VVQ1000-51A-C4 |
|  |  | $\varnothing 6$ One-touch fitting (Straight type) | 90-VVQ1000-51A-C6 |
|  | $\varnothing 8$ One-touch fitting (Straight type) | $90-$ VVQ1000-51A-C8 |  |
| 1 (P), 3 (R) port | Metric size | $\varnothing 10$ One-touch fitting (Straight type) | 90-VVQ2000-51A-C10 |

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## Plug Lead Unit 25A-SQ2000 Series

How to Order Manifolds

*1 The maximum number of stations should not be more than the maximum number of solenoids. (The number of solenoids are counted as: 1 for single solenoids and 2 for type 3P and 4P double solenoids.)

* Refer to the Web Catalog for manifold spare parts.
* The 25A- series specifications and dimensions are the same as those of the standard model.

- Port plug mounting port

| Nil | None |
| :---: | :---: |
| A | Port 4(A) |
| B | Port 2(B) |


| Nil | Standard (0.4 W DC) |
| :---: | :--- |
| $\mathbf{B}$ | Quick response type (0.95 W) |
| $\mathbf{D * 1}$ | 2-position double <br> (Double solenoid specifications) |
| $\mathbf{N}$ | Negative COM |
| $\mathbf{R}^{* 2}$ | External pilot specifications |

*1 "D" is specified for 2-position double.
*2 Except dual 3-port valves.

* When two or more symbols are specified, indicate them alphabetically.

| Coil voltage |  |
| :---: | :---: |
| $\mathbf{5}$ | 24 VDC |
| $\mathbf{6}$ | 12 VDC |

* Light/Surge voltage suppressor is built-in.

Electrical entry


Plug connector type without connector


For F, P, J kit manifolds*1

## Cylinder port


*1 Can be changed to side ported configuration.

- Manual override

| Nil | B | D |
| :--- | :--- | :--- |
| Non-locking push type <br> (Tool required) | Locking type <br> (Tool required) | Slide locking type (Manual type) <br> * Only side ported type applicable |

*1 Indicate "LO" when ordering centralized wiring type manifolds, F, P, and $J$ kits, since the lead wire will be attached to the manifold side.

## One-touch Fittings Part Nos.

| Port size |  | One-touch fittings part no. |  |
| :--- | :--- | :--- | :---: |
| Cylinder port | Metric size |  | 90-VVQ1000-51A-C4 |
|  |  | $\varnothing 6$ One-touch fitting (Straight type) | 90-VVQ1000-51A-C6 |
|  | $\varnothing 8$ One-touch fitting (Straight type) | $90-$ VVQ1000-51A-C8 |  |
| 1 (P), 3 (R) port | Metric size | $\varnothing 10$ One-touch fitting (Straight type) | 90-VVQ2000-51A-C10 |

* The 25A- series specifications and dimensions are the same as those of the standard model.
For details, refer to the Web Catalog.


## 5-Port Solenoid Valve

## 25A-VQZ1000 Series Single Unit



| Nil: Non-locking | B: Locking type |
| :--- | :--- |
| push type | (Tool required) |
| (Tool |  |
| required) |  |

Electrical entry

| G: Grommet (DC specification) | L: L-type plug connector with lead wire | LO: L-type plug connector without connector | M: M-type plug connector with lead wire | MO: M-type plug connector without connector |
| :---: | :---: | :---: | :---: | :---: |
|  | With light/ surge voltage suppressor | With light/ surge voltage suppressor | With light/ surge voltage suppressor | With light/ surge voltage suppressor |

- Coil voltage

| $\mathbf{1}$ | 100 VAC $(50 / 60 \mathrm{~Hz})$ |
| :---: | :--- |
| $\mathbf{2}$ | 200 VAC $(50 / 60 \mathrm{~Hz})$ |
| $\mathbf{3}$ | 110 VAC $[115 \mathrm{VAC}](50 / 60 \mathrm{~Hz})$ |
| $\mathbf{4}$ | 220 VAC $[230 \mathrm{VAC}](50 / 60 \mathrm{~Hz})$ |
| $\mathbf{5}$ | 24 VDC |
| $\mathbf{6}$ | 12 VDC |

## Caution

Use standard (DC) specification for continuous duty.

* The 25A- series specifications and dimensions are the same as those of the standard model.


| Symbol | Port size |
| :---: | :--- |
| $\mathbf{C 4}$ | $\varnothing 4$ One-touch fitting |
| C6 | $\varnothing 6$ One-touch fitting |
| M5 | M5 thread |
| $\mathbf{C M}^{* 1}$ | Mixture of port sizes |

*1 Specify port mixture/with port plug by the manifold specification sheet. Port mixture and port plug are available only for One-touch fitting type.

How to Order Valves


Coil voltage

|  | 1 1 Rubber | Rubber seal |  |
| :---: | :---: | :---: | :---: |
| Function |  |  |  |
| Symbol | Specifications | DC | AC |
| Nil | Standard | (0.35 W) | $\bigcirc$ |
| B | High speed response type | (0.9 W) | - |
| R | External pilot type | $\bigcirc$ | $\bigcirc$ |
| BR | High speed response/ External pilot type | $\begin{gathered} (0.9 \mathrm{~W}) \\ \mathrm{O} \end{gathered}$ | - |


| $\mathbf{1}$ | 100 VAC $(50 / 60 \mathrm{~Hz})$ |
| :--- | :--- |
| $\mathbf{2}$ | 200 VAC $(50 / 60 \mathrm{~Hz})$ |
| $\mathbf{3}$ | 110 VAC $[115 \mathrm{VAC}](50 / 60 \mathrm{~Hz})$ |
| $\mathbf{4}$ | 220 VAC $[230 \mathrm{VAC}](50 / 60 \mathrm{~Hz})$ |
| $\mathbf{5}$ | 24 VDC |
| $\mathbf{6}$ | 12 VDC |

## $\triangle$ Caution

Use standard (DC) specification for continuous duty.

* The 25A- series specifications and dimensions are the same as those of the standard model.


## 5-Port Solenoid Valve

## 25A-VQZ1000 Series Single Unit

 batteries

Series
1 VQZ1000 body width 10 mm
Type of actuation

| $\mathbf{1}$ | 2-position single |
| :--- | :--- |
| $\mathbf{2}$ | 2-position double |
| $\mathbf{3}$ | 3-position closed center |
| $\mathbf{4}$ | 3-position exhaust center |
| $\mathbf{5}$ | 3-position pressure center |
| $\mathbf{8}$ | 3-port for mixture mounting |
| $\mathbf{9}$ | N.C. |

* 3-port for mixture mounting is only available for port size C4 or C6.


Electrical entry

| G: Grommet <br> (DC speci- <br> fication) | L: L-type <br> plug <br> connector <br> with lead <br> wire | LO: L-type <br> plug <br> connector <br> without <br> connector | M: M-type <br> plug <br> connector <br> with lead <br> wire | MO: M-type <br> plug <br> connector <br> without <br> connector |
| :--- | :--- | :--- | :--- | :--- |
|  | With light/ <br> surge voltage <br> suppressor | With light/ <br> surge voltage <br> suppressor | With light/ <br> surge voltage <br> suppressor | With light/ <br> surge voltage <br> suppressor |

Function

| Symbol | Specifications | DC | AC |
| :---: | :--- | :---: | :---: |
| Nil | Standard | $(0.35$ W) | $\bigcirc$ |
| B | High speed response type | $(0.9$ W) | - |

Coil voltage

| $\mathbf{1}$ | 100 VAC $(50 / 60 \mathrm{~Hz})$ |
| :--- | :--- |
| $\mathbf{2}$ | 200 VAC $(50 / 60 \mathrm{~Hz})$ |
| $\mathbf{3}$ | 110 VAC $[115 \mathrm{VAC}](50 / 60 \mathrm{~Hz})$ |
| $\mathbf{4}$ | 220 VAC $[230 \mathrm{VAC}](50 / 60 \mathrm{~Hz})$ |
| $\mathbf{5}$ | 24 VDC |
| $\mathbf{6}$ | 12 VDC |

[^12]* The 25A-series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## 5-Port Solenoid Valve

# 25A-VQZ1000 Series Manifold Connector Kit 

[Option]

How to Order Manifolds


How to Order Valves
 batteries

Series ${ }^{\circ}$
1 VQZ1000 body width 10 mm
Type of actuation

| $\mathbf{1}$ | 2-position single |  |
| :---: | :--- | :--- |
| $\mathbf{2}$ | 2-position double |  |
| $\mathbf{3}$ | 3-position closed center |  |
| $\mathbf{4}$ | 3-position exhaust center |  |
| $\mathbf{5}^{* 1}$ | 3-position pressure center |  |
| $\mathbf{8}^{* 1}$ | 3-port for mixture mounting | N.C. |
| $\mathbf{9}^{* 1}$ | 3-port for mixture mounting | N.O. |

*1 3-port for mixture mounting is only
available for port size C4 or C6

| Body type |  |  |
| :--- | :--- | :---: |
| 2 | Body ported |  |
|  | Seal typed |  |
| 1 | Rubber seal |  |

Function

| Symbol | Specifications | DC | AC |
| :---: | :--- | :---: | :---: |
| Nil | Standard | $(0.35 \mathrm{~W})$ | $\bigcirc$ |
| B | High speed response type | $(0.9 \mathrm{~W})$ | - |

Caution
Use standard (DC) specification for continuous duty.

The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Plug-in Unit Base Mounted 25A-VQ1000/2000 Series Double check block (Separated) 

How to Order

## Double check block <br> 25A-VQ1000-FPG-C4/M5-F

Series compatible with secondary batteries


* When two or more symbols are specified, indicate them alphabetically. Example) -DN

Manifold (DIN rail mounting)
When ordering a double check block, order the DIN rail mounting [-D].
-Stations

| 01 | 1 station |
| :---: | :---: |
| $\vdots$ | $\vdots$ |
| 16 | 16 stations |

<Ordering example>
25A-VVQ1000-FPG-06...6-station manifold

* 25A-VQ1000-FPG-C4M5-D;

3 sets

* 25A-VQ1000-FPG-C6M5-D; check block 3 sets

Bracket Assembly

| Part no. | Tightening torque |
| :---: | :--- |
| 25A-VQ1000-FPG-FB | 0.22 to $0.25 \mathrm{~N} \cdot \mathrm{~m}$ |

Double check block


Series compatible with secondary batteries

IN side port size

| $\mathbf{0 1}$ | Rc $1 / 8$ |
| :--- | :--- |
| $\mathbf{0 2}$ | Rc $1 / 4$ |
| $\mathbf{C 6}$ | $\varnothing 6$ One-touch fitting |
| $\mathbf{C 8}$ | $\varnothing 8$ One-touch fitting |

Manifold (DIN rail mounting)

- Option

| Nil | None |
| :---: | :---: |
| $\mathbf{D}$ | DIN rail mounting <br> (For manifold) |
| F | With bracket |
| $\mathbf{N}$ | Name plate |

* When two or more symbols are specified, indicate them alphabetically. Example)-DN

OUT side port size

| 01 | Rc 1/8 |
| :--- | :--- |
| 02 | Rc 1/4 |
| C6 | $ø 6$ One-touch fitting |
| C8 | $\varnothing 8$ One-touch fitting |

25A-VVQ2000-FPG-06

- Series compatible with secondary batteries
When ordering a double check block, order the DIN rail mounting [-D].
-Stations

| 01 | 1 station |
| :---: | :---: |
| $\vdots$ | $\vdots$ |
| 16 | 16 stations |

## <Ordering Example>

25A-VVQ2000-FPG-06...6-station manifold

* 25A-VQ2000-FPG-C6C6-D;
3 sets
* 25A-VQ2000-FPG-C8C8-D; 3 sets

Double check block

Bracket Assembly

| Part no. | Tightening torque |
| :---: | :---: |
| 25A-VQ2000-FPG-FB | 0.8 to $1.0 \mathrm{~N} \cdot \mathrm{~m}$ |

* The 25A- series specifications and dimensions are the same as those of the standard model.


# Rubber Seal 3-Port/Pilot Poppet Type 25A-VP342/542/742 Series 




- Light/surge voltage suppressor

| Nil | Without light/surge voltage suppressor | AC |
| :---: | :--- | :--- |
| S | With surge voltage suppressor | $\bigcirc$ |
| Z | With light/surge voltage suppressor | $\bigcirc$ |
| R | With surge voltage suppressor (Non-polar) | $\bigcirc$ |
| U | With light/surge voltage suppressor (Non-polar) | $\bigcirc$ |
|  |  |  |

*1 There is no " $S$ " type for AC mode, since a rectifier prevents surge voltage generation.

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Rubber Seal 3-Port/Pilot Poppet Type 25A-VP344/544/744 Series 

How to Order

$C \in$
Only DIN and conduit terminal types are available for AC mode.
Refer to the electrical entry for details.
 surge voltage generation.

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## 3.Port Solenoid VavelResidual Pressure Release

 Vave with Detection of Main Vave Position
## 25A-VP500/700-X536, X538, X555



For details, refer to the Web Catalog.

* The 25A-series specifications and dimensions are the same as those of the standard model.


## 3-Port Solenoid Valve Direct Operated Poppet Type 25A-VT317 Series

Rubber Seal

*1 Semi-standard

* Applicable only for DIN terminal type.

$\mathbf{S}$ : With surge voltage suppressor
*1 Refer to the figure below.
Z: With light/surge voltage suppressor
Surge voltage suppressor mounting part (For "G")


Surge voltage suppressor

Accessory

| Model | Applicable manifold type | Description (Part no.) |
| :---: | :---: | :---: |
| 25A-VO317 | Common or individual exhaust | O-ring (KA00066, 4 pcs.)*1 <br> Bolts (CA01161, 2 pcs.) |

*1 It is not applied to "Continuous duty type." Refer to the accessories in the Web Catalog.

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

How to Order Manifold


## How to Order Valve

|  | Rated voltage |
| :--- | :--- |
| $\mathbf{1}$ | 100 VAC $50 / 60 \mathrm{~Hz}$ |
| $\mathbf{2}$ | 200 VAC $50 / 60 \mathrm{~Hz}$ |
| $\mathbf{3}$ | 110 VAC $50 / 60 \mathrm{~Hz}$ |
| $\mathbf{4}$ | 220 VAC $50 / 60 \mathrm{~Hz}$ |
| $\mathbf{5}$ | 24 VDC |
| $\mathbf{6}$ | $\mathbf{1 2}$ VDC |
| $\mathbf{7}$ | 240 VAC $50 / 60 \mathrm{~Hz}$ |


*2 Applicable only for DIN terminal type.

- Light/Surge voltage suppressor CEUKCA-compliant


S: With surge voltage suppressor
*1 Refer to the figure below
Z: With light/surge voltage suppressor
Surge voltage suppressor mounting part (For " G ")


Surge voltage suppressor

- Electrical entry

CE/UKCA-compliant

| G | Grommet, 300 mm lead wire | - |
| :---: | :---: | :---: |
| H | Grommet, 600 mm lead wire | - |
| C | Conduit | - |
| D | DIN terminal | $\bullet$ |

## 3-Port Solenoid Valve Direct Operated Poppet Type 25A-VG342 Series

Rubber Seal

Low power consumption
4.8 W DC (Standard type)

2 W DC (Energy-saving type)
No lubrication required Possible to use in vacuum or under low pressures
External pilot
Vacuum: Up to -101.2 kPa
Low pressure: 0 to 0.2 MPa
Changeable actuation:
N.C., N.O., or external pilot

Can be used as a selector or divider valve (External pilot)


How to Order


* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## 5-Port Air Operated Valve 25A-SYA5000/7000 Series

How to Order


## How to Order Manifold Base

Same manifolds as the SY series (Non plug-in type) are prepared.
(For 20, 41 and 42 Types)

(Refer to pages 65 and 67.)

[^13]25A-SS5YA5-42-03-02 $\cdots 1$ set (Type 42, 3-station manifold base part no.)

* 25A-SYA5140 ................ 1 set (Single air operated valve part no.)
* 25A-SYA5240 $\qquad$ 1 set (Double air operated valve part no.)
*25A-SY5000-26-1A . 1 set (Blanking plate the assembly part no.)
$\square_{\rightarrow \text { The asterisk denotes the symbol for the assembly. }}^{\text {The }}$
Prefix it to the part nos. of the solenoid valve, etc.
* When single body ported air operated valves are ordered, manifold mounting screws and gaskets are not included. Order them separately if necessary (For details, refer to page 70.)
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## 3-Port Air Operated Valve 25A-SYJA500/700 Series



* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## 25A-SYJA500/700 Series

Manifold Type for the SYJA500
Type 20


Applicable valve 25A-SYJA5 $\square 2$

Applicable blanking plate assembly 25A-SYJ500-10-1A

* For more than 6 stations, supply air to both sides of $P$ port and exhaust air from both sides of $R$ port.

Type 40

## How to Order

25A - SS3YJA5 - 40 - 05 M5
Applicable valve 25A-SYJA5 $\square 4$

Applicable blanking plate assembly 25A-SYJ500-10-3A


* For more than 9 stations, supply air to both sides of $P$ port and exhaust air from both sides of $R$ port.

Type 41


Applicable valve 25A-SYJA5 $\square 4$

Applicable blanking plate assembly 25A-SYJ500-10-3A

* For more than 9 stations, supply air to both sides of $P$ port and exhaust air from both sides of $R$ port.


## Manifold Type for the SYJA700

Type 20/21 How to Order


* If there are more than 6 stations for type 20 , or more than 9 stations for type 21 , supply air to both sides of $P$ port and exhaust air from both sides of R port.

Applicable valve 25A-SYJA7 $\square 2$

Applicable blanking plate assembly 25A-SYJ700-10-1A

Type 40/41


Applicable valve 25A-SYJA7 $\square 4$
Applicable blanking plate assembly 25A-SYJ700-10-2A

* If there are more than 6 stations for type 40 , or more than 9 stations for type 41 , supply air to both sides of $P$ port and exhaust air from both sides of R port.


Applicable valve 25A-SYJA7■4
Applicable blanking plate assembly 25A-SYJ700-10-2A

* For more than 9 stations, supply air to both sides of P port and exhaust air from both sides of R port.


## Finger Valve

# 25A-VHK $\square A$ Series 

How to Order


## Standard Type



1(P): One-touch fitting
2(A): One-touch fitting

| $2(A)$ |  | Applicable tubing O.D. [mm] |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $\varnothing 4$ | $\varnothing 6$ | $ø 8$ |
| 을를은은흔 | $\varnothing 4$ | $\bigcirc$ |  |  |
|  | ø6 | - | $\bigcirc$ |  |
|  | ø8 |  | - | - |



1(P): Male thread
2(A): One-touch fitting

| $2(A)$ |  | Applicable tubing O.D. [mm] |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $\varnothing 4$ | ø6 | ø8 |
| $\begin{aligned} & \text { ~ } \\ & \stackrel{N}{N} \\ & \stackrel{N}{\circ} \end{aligned}$ | $1 / 8$ | - | $\bigcirc$ | $\bigcirc$ |
|  | $1 / 4$ |  | $\bigcirc$ | $\bigcirc$ |
|  | 3/8 |  | - | $\bigcirc$ |



1(P): One-touch fitting 2(A): Male thread


* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## 25A-VHS20/30/40/50-D Series

## How to Order

25 A

*1 The pipe thread type for the EXH port is G.
*2 For the pipe thread type: NPT only. This product is for overseas use only according to the New Measurement Act. (The SI unit type is provided for use in Japan.)
*3 O: For the pipe thread type: NPT only

## Option/Part Nos.

| Optional specifications | Model |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | 25A-VHS20-D | 25A-VHS30-D | 25A-VHS40-D | 25A-VHS40-06-D | 25A-VHS50-D |
| Bracket assembly*1 | 25A-VHS24P-180AS | 25A-VHS34P-180AS | 25A-VHS44P-180AS | 25A-VHS44P-180AS | 25A-VHS54P-180AS |
| Silencer assembly*2 | VHS24P-190AS | VHS34P-190AS | VHS44P-190AS | VHS54P-190AS | VHS54P-190AS |

*1 The assembly consists of a bracket $A / B$ and 2 mounting screws.
*2 The assembly consists of the element assembly and an O-ring.

* The 25A-series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## Conforming to OSHA Standard <br> Pressure Relief 3 -Port Valve with Locking Holes (Single Action) 25A-VHS20/30/40/50 Series

How to Order


1 Only for the NPT thread This product is for overseas use only according to the New Measurement Act. (The SI unit type is provided for use in Japan.)

- Options

| Symbol | Description |
| :---: | :---: |
| $\mathbf{N i l}$ | - |
| $\mathbf{B}$ | With bracket |

Handle/Bonnet materiald

| Symbol | Material |
| :---: | :---: |
| A | Flame-resistant PBT |
| B | Aluminum |

Option Part Nos.

| Model | Bracket <br> assembly part no.*1 |
| :--- | :---: |
| 25A-VHS20 | VHS20PW-180AS-6 |
| 25A-VHS30 | VHS30PW-180AS-6 |
| 25A-VHS40 | VHS40PW-180AS-6 |
| 25A-VHS40-06 | VHS40PW-180-06AS-6 |
| 25A-VHS50 | VHS50PW-180AS-6 |

[^14][^15]* The 25A-series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## Conforming to OSHA Standard

## Pressure Relief 3 -Port Valve with Locking Holes (Double Action) 25A-VHS2510/3510/4510/5510 Series

How to Order


Option Part Nos.

| Model | Bracket <br> assembly part no.*1 |
| :--- | :---: |
| 25A-VHS2510 | VHS20PW-180AS-6 |
| 25A-VHS3510 | VHS30PW-180AS-6 |
| 25A-VHS4510 | VHS40PW-180AS-6 |
| 25A-VHS4510-06 | VHS40PW-180-06AS-6 |
| 25A-VHS5510 | VHS50PW-180AS-6 |

[^16]OSHA standard (Occupational Safety and Health
Administration Department of Labor)
For safety control, OSHA rule requires energy sources for certain equipment be turned off or disconnected and that
the device either be locked or labelled with a warning tag.

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Pin Cylinder: Double Acting, Single Rod 25A-CJP2 Series 

 $\varnothing 4, \varnothing 6, \varnothing 10, \varnothing 16$

## Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.
(Example) 25A-CDJP2F10-15D

Mounting Bracket Part Nos. for the 25A- Series

| Bore size <br> $[\mathrm{mm}]$ | Flange | Foot | Trunnion |
| :---: | :---: | :---: | :---: |
| $\mathbf{6}$ | 25A-CP-F006A | 25A-CP-L006A | 25A-CP-T006A |
| $\mathbf{1 0}$ | 25A-CP-F010A | 25A-CP-L010A | 25A-CP-T010A |
| $\mathbf{1 6}$ | 25A-CP-F016A | 25A-CP-L016A | 25A-CP-T016A |

Accessory Bracket Part Nos. for the 25A- Series

| Bore size <br> $[\mathrm{mm}]$ | Single knuckle joint | Double knuckle <br> joint | Knuckle joint pin | Trunnion pin | Mounting nut | Rod end nut |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{4}$ | - | - | - | - | $25 A-S N P S-004$ | $25 A-N T J-004$ |
| $\mathbf{6}$ | $25 A-I-P 006 A$ | $25 A-Y-$ P006A | $25 A-I Y-P 006$ | $25 A-C T-P 006$ | $25 A-S N P-006$ | $25 A-N T P-006$ |
| $\mathbf{1 0}$ | $25 A-I-P 010 A$ | $25 A-Y-$ P010A | $25 A-I Y-P 010$ | $25 A-C T-P 010$ | $25 A-S N P-010$ | $25 A-N T P-010$ |
| $\mathbf{1 6}$ | $25 A-I-P 016 A$ | $25 A-Y-P 016 A$ | $25 A-I Y-P 016$ | $25 A-C T-P 016$ | $25 A-S N P-016$ | $25 A-N T P-016$ |

## Air Cylinder: Standard Type Double Acting, Single Rod 25A-CJ2 Series ø10, ø16

How to Order


Mounting Bracket Part Nos. for the 25A- Series

| Mounting <br> bracket | Bore size [mm] |  |
| :--- | :---: | :---: |
|  | $\mathbf{1 0}$ | $\mathbf{1 6}$ |
| Foot bracket | 25A-CJ-L010B | CJ-L016SUS |
| Flange bracket | 25A-CJ-F010B | CJ-F016SUS |

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Air Cylinder: Non-rotating Rod Type Double Acting, Single Rod 25A-CJ2K Series ø10, ø16 <br> RoHS 

How to Order


Mounting Bracket Part Nos. for the 25A- Series

| Mounting <br> bracket | Bore size [mm] |  |
| :--- | :---: | :---: |
|  | CJ-L016SUS | CJK-L016SUS |
| Flange bracket | CJ-F016SUS | CJK-F016SUS |

* The 25A- series specifications and dimensions are the same as those of the standard model. (Excluding the foot and flange plate thickness)

For details, refer to the Web Catalog.

# Air Cylinder: With End Lock 25A-CBJ2 Series $\varnothing 16$ 

Auto switch
Nil Without auto switch

* Click here for details on applicable auto switch models.

Number of auto switches

| Nil | 2 |
| :---: | :---: |
| $\mathbf{S}$ | 1 |
| $\mathbf{n}$ | n |

How to order built-in magnet type (Without auto switch)
Suffix the symbol "-B" (Band mounting) to the end of part number for cylinder with auto switch.
Example $\quad$ 25A-CDBJ2B16-60-HN-B

Mounting Bracket Part Nos. for the 25A-Series

| Mounting bracket | Bore size $[\mathrm{mm}]$ |
| :---: | :---: |
|  | 16 |
| Flange bracket | CJ-L016SUS |

* The 25A- series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catalog.


# Air Cylinder: Standard Type Double Acting, Single Rod 25A-CM2 Series ø20, ø25, ø32, ø40 

## Built-in Magnet Cylinder Model

| Nil | Rc |
| :---: | :---: |
| TN | NPT |
| TF | G |

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.
(Example) 25A-CDM2F32-100AZ
Mounting Bracket Part Nos. for the 25A-Series

| Mounting bracket | Min. <br> order | Bore size mm$]$ |  |  | Description (for min. order) |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\mathbf{2 0}$ | $\mathbf{2 5}$ | $\mathbf{3 2}$ |  |  |
| Axial foot*1 |  | CM-L020B-XB12 | CM-L032B-XB12 | CM-L040B-XB12 | 2 foot brackets, 1 mounting nut |  |
| Flange | 1 | CM-F020BSUS | CM-F032BSUS | CM-F040BSUS | 1 flange |  |
| Single clevis*2 | 1 | CM-C020B | CM-C032B | CM-C040B | 1 single clevis, 3 liners |  |
| Double clevis*2*3 <br> (with pin) | 1 | 25A-CM-D020B | 25A-CM-D032B | 25A-CM-D040B | 1 double clevis, 3 liners, <br> 1 clevis pin, 2 retaining rings |  |
| Trunnion (with nut) | 1 | $25-C M-T 020 B ~$ | $25-C M-T 032 B$ | $25-C M-T 040 B$ | 1 trunnion, 1 trunnion nut |  |

*1 Order 2 foot brackets for each cylinder unit.
*2 3 liners are attached with a clevis bracket for adjusting the mounting angle.
*3 A clevis pin and retaining rings (split pins for ø40) are attached.

* The 25A- series specifications and dimensions are the same as those of the standard model.


# Air Cylinder: Standard Type Double Acting, Single Rod 25A-CG1 Series $\varnothing 20, \varnothing 25, \varnothing 32, \varnothing 40, \varnothing 50, \varnothing 63, \varnothing 80, \varnothing 100$ 

How to Order
If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.

## Bore sized

| $\mathbf{2 0}$ | 20 mm |
| :---: | :---: |
| $\mathbf{2 5}$ | 25 mm |
| $\mathbf{3 2}$ | 32 mm |
| $\mathbf{4 0}$ | 40 mm |
| $\mathbf{5 0}$ | 50 mm |
| $\mathbf{6 3}$ | 63 mm |
| $\mathbf{8 0}$ | 80 mm |
| $\mathbf{1 0 0}$ | 100 mm |

- Port thread type

Rubber bumper

| Rubber bumper |  |  | Air cushion |  |
| :---: | :---: | :---: | :---: | :---: |
| Nil | Rc | ø20 to ø100 | M5 x 0.8 | ø20, ø25 |
|  |  |  | Rc | $\varnothing 32$ to ø100 |
| TN | NPT | $\varnothing 20$ to $\varnothing 100$ | NPT*1 | $\varnothing 32$ to $\varnothing 100$ |
| TF | M5 x 0.8 | ø20, ø25 | G*1 | $\varnothing 32$ to $\varnothing 100$ |
|  | G | $\varnothing 32$ to ø100 | Not | ø20 |

(Example) 25A-CDG1FN32-100Z

Mounting Bracket Part Nos. for the 25A-Series * The rod end brackets are the same as those of the CG5-S series. Refer to the Web Catalog for details.

| Mounting bracket | Min. order | Bore size [mm] |  |  |  |  |  |  |  | Description |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 |  |
| Foot | 2*1 | 90-CG-L020 | 90-CG-L025 | 90-CG-L032 | 90-CG-L040 | 90-CG-L050 | 25-CG-L063 | 25-CG-L080 | 25-CG-L100 | Foot x 2, Mounting bolt $\times 8$ |
| Flange | 1 | 90-CG-F020 | 90-CG-F025 | 90-CG-F032 | 90-CG-F040 | 90-CG-F050 | 25-CG-F063 | 25-CG-F080 | 25-CG-F100 | Flange $\times 1$, Mounting bolt $\times 4$ |
| Trunnion pin | 1 | 25-CG-T020 | 25-CG-T025 | 25-CG-T032 | 25-CG-T040 | 25-CG-T050 | 25-CG-T063 | - | - | Trunnion pin $x 2$, Trunnion bolt $x 2$, Flat washer x 2 |
| Clevis | 1 | 25-CG-D020 | 25-CG-D025 | 25-CG-D032 | 25-CG-D040 | 25-CG-D050 | 25-CG-D063 | 25-CG-D080 | 25-CG-D100 | Clevis $\times 1$, Mounting bolt x 4 , Clevis pin $\times 1$, Retaining ring $\times 2$ |
| Pivot bracket | 1 | 25-CG-020-24A | 25-CG-025-24A | 25-CG-032-24A | 25-CG-040-24A | 25-CG-050-24A | 25-CG-063-24A | 25-CG-080-24A | 25-CG-100-24A | Pivot bracket x 1 |

[^17]* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Air Cylinder: With End Lock 

# 25A-CBG1 Series $ø 20, \varnothing 25, \varnothing 32, \varnothing 40, \varnothing 50, \varnothing 63$ 



| Bore size | Standard stroke*1 | Long stroke*2 |
| :---: | :---: | :---: |
| $\mathbf{2 0}$ | $25,50,75,100,125,150,200$ | 201 to 1500 |
| $\mathbf{2 5}$ | $25,50,75,100,125$, |  |
| $\mathbf{3 2}$ | $150,200,250,300$ | 301 to 1500 |
| $\mathbf{4 0}$ |  |  |
| $\mathbf{5 0 , 6 3}$ |  |  |

*1 Other intermediate strokes can be manufactured upon receipt of order. The manufacturing of intermediate strokes in 1 mm increments is possible. (Spacers are not used.)
*2 For details on the maximum stroke that can be used for each mounting bracket, refer to the stroke selection table (Web Catalog).

## Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch
(Example) 25A-CDBG1FN32-100-RN

Mounting Bracket Part Nos. for the 25A-Series $\quad *$ The rod end brackets are the same as those of the CG5-S series. Refer to the Web Catalog for details.

| Mounting bracket | Min. order | Bore size [mm] |  |  |  |  |  | Description |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 20 | 25 | 32 | 40 | 50 | 63 |  |
| Foot | 2*1 | 90-CG-L020 | 90-CG-L025 | 90-CG-L032 | 90-CG-L040 | 90-CG-L050 | 25-CG-L063 | Foot x 2, Mounting bolt x 8 |
| Flange | 1 | 90-CG-F020 | 90-CG-F025 | 90-CG-F032 | 90-CG-F040 | 90-CG-F050 | 25-CG-F063 | Flange $\times 1$, Mounting bolt $\times 4$ |
| Trunnion pin | 1 | 25-CG-T020 | 25-CG-T025 | 25-CG-T032 | 25-CG-T040 | 25-CG-T050 | 25-CG-T063 | Trunnion pin $x 2$, Trunnion bolt $x$ <br> 2, Flat washer x 2 |
| Clevis | 1 | 25-CG-D020 | 25-CG-D025 | 25-CG-D032 | 25-CG-D040 | 25-CG-D050 | 25-CG-D063 | Clevis $\times 1$, Mounting bolt $\times 4$, Clevis pin $\times 1$, Retaining ring $\times 2$ |
| Pivot bracket | 1 | 25-CG-020-24A | 25-CG-025-24A | 25-CG-032-24A | 25-CG-040-24A | 25-CG-050-24A | 25-CG-063-24A | Pivot bracket x 1 |

*1 Order two foot brackets per cylinder. * The 25A- series specifications and dimensions (excluding the cap) are the same as those of the standard model. For details, refer to the Web Catalog.

# Air Cylinder: Single Rod 25A-MB Series $\varnothing 32, \varnothing 40, \varnothing 50, \varnothing 63, \varnothing 80, \varnothing 100$ 



## Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.
(Example) 25A-MDBB40-100Z

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

Mounting Bracket Part Nos. for the 25A-Series

| Bore size <br> $[\mathrm{mm}]$ | $\mathbf{3 2}$ | $\mathbf{4 0}$ | $\mathbf{5 0}$ | $\mathbf{6 3}$ | $\mathbf{8 0}$ | $\mathbf{1 0 0}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Foot*1 | $25-M B-L 03$ | $25-M B-L 04$ | $25-M B-L 05$ | $25-M B-L 06$ | $25-M B-L 08$ | $25-M B-L 10$ |
| Flange | MB-F03-XC7 | MB-F04-XC7 | MB-F05-XC7 | MB-F06-XC7 | MB-F08-XC7 | MB-F10-XC7 |
| Single clevis | $25-M B-C 03$ | $25-M B-C 04$ | $25-M B-C 05$ | $25-M B-C 06$ | $25-M B-C 08$ | $25-M B-C 10$ |
| Double clevis | $25-M B-D 03$ | $25-M B-D 04$ | $25-M B-D 05$ | $25-M B-D 06$ | $25-M B-D 08$ | $25-M B-D 10$ |
| Single knuckle joint | $25 A-I-03 M$ | $25 A-I-04 M$ | $25 A-I-05 M$ | $25 A-I-05 M$ | $25 A-I-08 M$ | $25 A-I-10 M$ |
| Double knuckle joint | $25 A-Y-03 M$ | $25 A-Y-04 M$ | $25 A-Y-05 M$ | $25 A-Y-05 M$ | $25 A-Y-08 M$ | $25 A-Y-10 M$ |
| Double clevis pin <br> Double knuckle joint pin | $25-C D-M 03$ | $25-C D-M 03$ | $25-C D-M 05$ | $25-C D-M 05$ | $25-C D-M 08$ | $25-C D-M 08$ |
| Rod end nut | NT-03SUS | NT-04SUS | NT-05SUS | NT-05SUS | NT-08SUS | NT-10SUS |
| Trunnion pivot bracket | $25 A-M B-S 03$ | $25 A-M B-S 04$ | $25 A-M B-S 04$ | $25 A-M B-S 06$ | $25 A-M B-S 06$ | $25 A-M B-S 10$ |
| Double clevis bracket | $25 A-M B-B 03$ | $25 A-M B-B 03$ | $25 A-M B-B 05$ | $25 A-M B-B 05$ | $25 A-M B-B 08$ | $25 A-M B-B 08$ |

*1 Two foot brackets required for one cylinder.

* Accessories for each mounting bracket are as follows.

Foot, Flange, Single clevis: Body mounting bolt
Double clevis: Body mounting bolt, Pin, Flat washers and Split pins
Double knuckle joint: Pin, Flat washers and Split pins
Double clevis pin, Double knuckle joint pin: Flat washers and Split pins

# Air Cylinder: Standard Type Double Acting, Single Rod 25A-CA2 Series $ø 40, \varnothing 50, \varnothing 63, \varnothing 80, \varnothing 100$ 

How to Order


## Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch
(Example) 25A-CDA2L40-100Z

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

Mounting Bracket Part Nos. for the 25A- Series

| Bore size [mm] | 40 | 50 | 63 | 80 | 100 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Axial foot*1 | 90-CA2-L04 | 90-CA2-L05 | 90-CA2-L06 | 90-CA2-L08 | 90-CA2-L10 |
| Flange | 25A-CA2-F04 | 25A-CA2-F05 | 25A-CA2-F06 | 25A-CA2-F08 | 25A-CA2-F10 |
| Single clevis | 25A-CA2-C04 | 25A-CA2-C05 | 25A-CA2-C06 | 25A-CA2-C08 | 25A-CA2-C10 |
| Double clevis | 25A-CA2-D04 | 25A-CA2-D05 | 25A-CA2-D06 | 25A-CA2-D08 | 25A-CA2-D10 |
| Single knuckle joint | I-04A | I-05A | I-05A | I-08A | I-10A |
| Double knuckle joint | 25A-Y-04D | 25A-Y-05D | 25A-Y-05D | 25A-Y-08D | 25A-Y-10D |
| Clevis pin | 25A-CDP-2A | 25A-CDP-3A | 25A-CDP-4A | 25A-CDP-6A | 25A-CDP-7A |
| Knuckle pin | 25A-CDP-3A | 25A-CDP-3A | 25A-CDP-3A | 25A-CDP-5A | 25A-CDP-6A |
| Rod end nut | NT-04SUS | NT-05SUS | NT-05SUS | NT-08SUS | NT-10SUS |
| Trunnion pivot bracket | 25A-CA2-S04 | 25A-CA2-S04 | 25A-CA2-S06 | 25A-MB-S10 | 25A-MB-S10 |
| Double clevis bracket | 25A-CA2-B04 | 25A-CA2-B05 | 25A-CA2-B06 | 25A-CA2-B08 | 25A-CA2-B10 |

[^18]
# Air Cylinder: Standard Type Double Acting, Single Rod 25A-CS2 Series $\varnothing 125, \varnothing 140, \varnothing 160$ 

How to Order

## $\underset{\substack{\text { mpatible with }}}{25 A-C}$ <br> Series compatible with $\quad$

With auto switch

| Nil | Without magnet <br> for switch*1 |
| :---: | :--- |
| D | With auto switch <br> (Built-in magnet) |

*1 In the case of without magnet for switch, auto
switch cannot be mounted.

| Mounting |  |
| :---: | :---: |
| B | Basic |
| L | Foot |
| F | Rod flange |
| G | Head flange |
| C | Single clevis |
| D | Double clevis |
| T | Center trunnion |

Bore sized

| $\mathbf{1 2 5}$ | 125 mm |
| :--- | :--- |
| $\mathbf{1 4 0}$ | 140 mm |
| $\mathbf{1 6 0}$ | 160 mm |

 secondary batteries

## Built-in Magnet Cylinder Model

If a built-in magnet cylinder without auto switch is required, there is no need to enter the symbol for auto switch.
(Example) 25A-CS2B125-100

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

Mounting Bracket Part Nos. for the 25A- Series

| Bore size <br> $[\mathrm{mm}]$ | $\mathbf{1 2 5}$ | $\mathbf{1 4 0}$ | $\mathbf{1 6 0}$ |
| :--- | :---: | :---: | :---: |
| Axial foot*1 | CS2-L12 | CS2-L14 | CS2-L16 |
| Flange | CS2-F12 | CS2-F14 | CS2-F16 |
| Single clevis | CS2-C12 | CS2-C14 | CS2-C16 |
| Double clevis*2 | 25A-CS2-D12 | 25A-CS2-D14 | 25A-CS2-D16 |

[^19]*2 A clevis pin and split pins are shipped together with double clevis.

# Cylinder with Lock Double Acting, Single Rod 25A-MWB Series 

 $\varnothing 32, \varnothing 40, \varnothing 50, \varnothing 63, \varnothing 80, \varnothing 100$
## With auto switch 25A - M D WB B $40 \square-50-$ M9BW $\square$

With auto switch

| Nil | Without magnet for switch*1 |
| :---: | :---: |
| D | With auto switch (Built-in magnet) |

*1 In the case of without magnet for switch, auto switch cannot be mounted

- Number of auto switches

| $\mathbf{N i l}$ | 2 |
| :---: | :---: |
| $\mathbf{S}$ | 1 |
| $\mathbf{3}$ | 3 |
| $\mathbf{n}$ | n |

- Auto switch

Nil Without auto switch

* Click here for details on applicable auto switch models.

| Bore <br> size | Standard stroke |  |  | Stroke range (1) | Up to 1000 |
| :---: | :--- | :---: | :---: | :---: | :---: |
|  | $25,50,75,100,125,150,175,200,250,300,350,400,450$, <br> 500 |  |  |  |  |
| 40 | $25,50,75,100,125,150,175,200,250,300,350,400,450$, <br> 500 |  |  |  |  |
| 50 | $25,50,75,100,125,150,175,200,250,300,350,400,450$, <br> 500,600 |  |  |  |  |
| 63 | $25,50,75,100,125,150,175,200,250,300,350,400,450$, <br> 500,600 | Up to 1800 |  |  |  |
| $\mathbf{8 0}$ | $25,50,75,100,125,150,175,200,250,300,350,400,450$, <br> $500,600,700,800$ |  |  |  |  |
| $\mathbf{1 0 0}$ | $25,50,75,100,125,150,175,200,250,300,350,400,450$, <br> $500,600,700,800$ |  |  |  |  |

* The manufacturing of intermediate strokes is possible. (Spacers are not used.)


## Mounting Brackets/Part Nos.

| Bore size <br> $[\mathrm{mm}]$ | $\mathbf{3 2}$ | $\mathbf{4 0}$ | $\mathbf{5 0}$ | $\mathbf{6 3}$ | $\mathbf{8 0}$ | $\mathbf{1 0 0}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Foot | $25-M B-L 03$ | $25-M B-L 04$ | $25-M B-L 05$ | $25 A-M W B-L 06$ | $25-M B-L 08$ | $25-M B-L 10$ |
| Flange | $25 A-M W B-F 03$ | $25 A-M W B-F 04$ | $25 A-M W B-F 05$ | $25 A-M W B-F 06$ | MB-F08-XC7 | MB-F10-XC7 |
| Single clevis | $25-M B-C 03$ | $25-M B-C 04$ | $25-M B-C 05$ | $25-M B-C 06$ | $25-M B-C 08$ | $25-M B-C 10$ |
| Double clevis | $25-M B-D 03$ | $25-M B-D 04$ | $25-M B-D 05$ | $25-M B-D 06$ | $25-M B-D 08$ | $25-M B-D 10$ |

* Order two foot brackets per cylinder.
* Accessories for each mounting bracket are as follows.

Foot, Flange, Single clevis: Body mounting bolt
Double clevis: Body mounting bolt, Clevis pin, Flat washers and Split pins

* The 25A- series specifications and dimensions are the same as those of the standard model.


## Lock Unit

RoHS
25A-MWB-UT Series
32, 40, 50, 63, 80, 100


* This product uses lithium-based grease (standard grease).


## Mounting Brackets/Part Nos.

| Bore size <br> $[\mathrm{mm}]$ | $\mathbf{3 2}$ | $\mathbf{4 0}$ | $\mathbf{5 0}$ | $\mathbf{6 3}$ | $\mathbf{8 0}$ | $\mathbf{1 0 0}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Foot | $25-M B-L 03$ | $25-M B-L 04$ | $25-M B-L 05$ | $25 A-M W B-L 06$ | $25-M B-L 08$ | $25-M B-L 10$ |
| Flange | $25 A-M W B-F 03$ | $25 A-M W B-F 04$ | $25 A-M W B-F 05$ | $25 A-M W B-F 06$ | MB-F08-XC7 | MB-F10-XC7 |

* Order two foot brackets per lock unit.
* Accessories for each mounting bracket are as follows.

Foot, Flange: Body mounting bolt

# Cylinder with Lock Double Acting, Single Rod 25A-CNS Series 

$\varnothing 125, \varnothing 140, \varnothing 160$

How to Order

## 25A-CDNS 125

Series compatible with $\quad$ secondary batteries

| With auto switch |  |
| :---: | :--- |
| Nil | Without magnet <br> for switch*1 |
| D | With auto switch <br> (Built-in magnet) |

*1 In the case of without magnet for switch, auto switch cannot be mounted.

|  | Mounting |
| :---: | :---: |
| B | Basic |
| L | Foot |
| F | Rod flange |
| G | Head flange |
| C | Single clevis |
| D | Double clevis |
| T | Center trunnion |

Mounting brackets are assembled before shipping.

| Nil | Rc |
| :---: | :---: |
| TN | NPT |
| TF | G |

Bore sized

| $\mathbf{1 2 5}$ | 125 mm |
| :--- | :--- |
| $\mathbf{1 4 0}$ | 140 mm |
| $\mathbf{1 6 0}$ | 160 mm |

## Built-in Magnet Cylinder Model

If a built-in magnet cylinder without auto switch
is required, there is no need to enter the
symbol for auto switch.
(Example) 25A-CDNSL140-100-D

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.
$\triangle$ There is no built-in unlocking cam.


# Mini Free Mount Cylinder 25A-CUJ Series $\varnothing 6, \varnothing 8, \varnothing 10$ 



## Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter
the symbol for the auto switch.
(Example) 25A-CDUJB8-15DM

* The 25A- series specifications are the same as those of the standard model.

For details, refer to the Web Catalog.

Dimensions (Dimensions other than those shown below are the same as the standard model.) For details, refer to the Web Catalog.
25A-C $\square$ UJB ${ }_{10}^{8} \quad{ }_{10}^{6} \quad$ * The position of the width across flats may not be parallel to the cylinder tube


# Mini Free Mount Cylinder 25A-CUJ Series ø12, ø16, ø20 



## Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.
(Example) 25A-CDUJB12-15DM

[^20]
# Free Mount Cylinder Double Acting, Single Rod 25A-CU Series $\varnothing 10, \varnothing 16, \varnothing 20, \varnothing 25, \varnothing 32$ 

How to Order

Series compatible with secondary batteries

\[

\]

*1 In the case of without magnet for switch, auto switch cannot be mounted.

Bore size

| $\mathbf{1 0}$ | 10 mm |
| :---: | :---: |
| $\mathbf{1 6}$ | 16 mm |
| $\mathbf{2 0}$ | 20 mm |
| $\mathbf{2 5}$ | 25 mm |
| $\mathbf{3 2}$ | 32 mm |

## - 30 D - M9BW


d Number of auto switches
$\square$
-Auto switch
Nil Without auto switch
Click here for details on applicable auto switch models.

- Action

D Double acting

Cylinder stroke [mm]

| Bore size | Standard stroke | Long stroke |
| :--- | :---: | :---: |
| $\mathbf{1 0 , 1 6}$ | $5,10,15,20,25,30$ | $40,50,60$ |
| $\mathbf{2 0 , 2 5 , 3 2}$ | $5,10,15,20,25,30,40,50$ | $60,70,80,90,100$ |

## Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.
(Example) 25A-CDU20-25D

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Free Mount Cylinder: Non-rotating Rod Type Double Acting, Single Rod 25A-CUK Series $\varnothing 10, \varnothing 16, \varnothing 20, \varnothing 25, \varnothing 32$ 

Series compatible with ${ }^{\circ}$ secondary batteries

*1 In the case of without magnet for switch, auto switch cannot be mounted.

Non-rotating rod type
Cylinder stroke [mm]

| Bore size | Standard stroke | Long stroke |
| :--- | :--- | :--- |
| $\mathbf{1 0 , 1 6}$ | $5,10,15,20,25,30$ | $40,50,60$ |
| $\mathbf{2 0 , 2 5 , \mathbf { 3 2 }}$ | $5,10,15,20,25,30,40,50$ | $60,70,80,90,100$ |


| Bore size |  |
| :--- | :--- |
| $\mathbf{1 0}$ | 10 mm |
| 16 | 16 mm |
| $\mathbf{2 0}$ | 20 mm |
| 25 | 25 mm |
| 32 | 32 mm |

## Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.
(Example) 25A-CDUK20-25D

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Compact Cylinder: Standard Type Double Acting, Single Rod 25A-CQS Series 

 $\varnothing 12, \varnothing 16, \varnothing 20, \varnothing 25$

## Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

Mounting Bracket Part Nos. for the 25A- Series

| Bore size <br> $[\mathrm{mm}]$ | Foot*1 | Compact foot*1 | Flange | Double clevis |
| :---: | :---: | :---: | :---: | :---: |
| $\mathbf{1 2}$ | 25A-CQS-L012 | 25A-CQS-LC012 | $25 A-C Q S-F 012$ | $25-C Q S-D 012$ |
| 16 | $25 A-C Q S-L 016$ | $25 A-C Q S-L C 016$ | $25 A-C Q S-F 016$ | $25-C Q S-D 016$ |
| 20 | $25 A-C Q S-L 020$ | $25 A-C Q S-L C 020$ | $25 A-C Q S-F 020$ | $25-C Q S-D 020$ |
| 25 | $25 A-C Q S-L 025$ | $25 A-C Q S-L C 025$ | $25 A-C Q S-F 025$ | $25-C Q S-D 025$ |

*1 When ordering foot and compact foot brackets, order 2 pieces per cylinder.

* Parts included with each type of bracket are as follows.

Foot, Compact foot, Flange: Body mounting bolts
Double clevis type: Clevis pin, Type C retaining ring for axis, Body mounting bolt

# Compact Cylinder: Standard Type Double Acting, Double Rod 25A-CQSW Series $\varnothing 12, \varnothing 16, \varnothing 20, \varnothing 25$ 

How to Order


Mounting Bracket Part Nos. for the 25A-Series

| Bore size <br> $[\mathrm{mm}]$ | Foot*1 | Compact foot*1 | Flange |
| :---: | :---: | :---: | :---: |
| $\mathbf{1 2}$ | 25A-CQS-L012 | 25A-CQS-LC012 | 25A-CQS-F012 |
| 16 | 25A-CQS-L016 | 25A-CQS-LC016 | 25A-CQS-F016 |
| 20 | 25A-CQS-L020 | 25A-CQS-LC020 | 25A-CQS-F020 |
| 25 | 25A-CQS-L025 | 25A-CQS-LC025 | 25A-CQS-F025 |

*1 When ordering foot and compact foot brackets, order 2 pieces per cylinder.

* Body mounting bolts are included for each bracket.


## Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.
(Example) 25A-CDQSWL25-30D

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Compact Cylinder: Anti-lateral Load Type 25A-CQS $\square S$ Series ø12, ø16, ø20, ø25 <br> RoHS 

How to Order


## Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.
(Example) 25A-CDQSLS12-25DC

* With cushion only.
* The 25A- series specifications and dimensions are the same as those of the standard model.


## Mounting Bracket Part Nos. for the 25A- Series

For details, refer to the Web Catalog.

| Bore size <br> $[\mathrm{mm}]$ | Foot*1 | Compact foot*1 | Flange | Double clevis |
| :---: | :---: | :---: | :---: | :---: |
| 12 | 25A-CQS-L012 | 25A-CQS-LC012 | $25 A-C Q S-F 012$ | $25-C Q S-D 012$ |
| 16 | $25 A-C Q S-L 016$ | $25 A-C Q S-L C 016$ | $25 A-C Q S-F 016$ | $25-C Q S-D 016$ |
| 20 | $25 A-C Q S-L 020$ | $25 A-C Q S-L C 020$ | $25 A-C Q S-F 020$ | $25-C Q S-D 020$ |
| 25 | $25 A-C Q S-L 025$ | $25 A-C Q S-L C 025$ | $25 A-C Q S-F 025$ | $25-C Q S-D 025$ |

[^21]
# Compact Cylinder: Standard Double Acting, Single Rod 25A-CQ2 Series $\varnothing 12, \varnothing 16, \varnothing 20, \varnothing 25, \varnothing 32, \varnothing 40, \varnothing 50, \varnothing 63, \varnothing 80, \varnothing 100$ 

How


| Nil | Without magnet for switch*1 |
| :---: | :--- |
| D | With auto switch (Built-in magnet) |
| *1 In the case of without magnet for switch, |  | auto switch cannot be mounted

Mounting e

| B | Through-hole (Standard) |
| :---: | :---: |
| A | Both ends tapped |
| L | Foot |
| LC | Compact foot |
| F | Rod flange |
| G | Head flange |
| D | Double clevis |

* Mounting brackets are shipped together with the product but do not come assembled.
* Cylinder mounting bolts are not included.

|  |  |  | Bore size |  |  |
| :--- | :--- | ---: | ---: | :---: | :---: |
| $\mathbf{1 2}$ | 12 mm | $\mathbf{4 0}$ | 40 mm |  |  |
| $\mathbf{1 6}$ | 16 mm | $\mathbf{5 0}$ | 50 mm |  |  |
| $\mathbf{2 0}$ | 20 mm | $\mathbf{6 3}$ | 63 mm |  |  |
| $\mathbf{2 5}$ | 25 mm | $\mathbf{8 0}$ | 80 mm |  |  |
| $\mathbf{3 2}$ | 32 mm | $\mathbf{1 0 0}$ | 100 mm |  |  |

Port thread type -

| Nil | M thread | $\varnothing 12$ to $\varnothing 25$ |
| :---: | :---: | :---: |
|  | Rc | $\propto 32$ to $\varnothing 100$ |
| TN | NPT |  |
| TF | G |  |

## Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.
(Example) 25A-CDQ2L32-25DZ

## - Auto switch mounting groove

| $\mathbf{Z}$ | $\varnothing 12$ to $\varnothing 25$ | 2 surfaces |
| :---: | :---: | :---: |
|  | $\varnothing 32$ to $\varnothing 100$ | 4 surfaces |

* "Z" is not available for $\varnothing 12$ to $\varnothing 25$ without auto switches.
- Body option

| Nil | Standard (Rod end female thread) |
| :---: | :---: |
| $\mathbf{C}$ | With rubber bumper |
| $\mathbf{M}$ | Rod end male thread |

* Combination of body options is available.
-Action
D


## - Cylinder stroke [mm]

| $\mathbf{1 2 , 1 6}$ | $5,10,15,20,25,30$ |
| :---: | :--- |
| $\mathbf{2 0 , 2 5}$ | $5,10,15,20,25,30,35,40,45,50$ |
| $\mathbf{3 2 , 4 0}$ | $5,10,15,20,25,30,35,40,45,50,75,100$ |
| $\mathbf{5 0}$ to $\mathbf{1 0 0}$ | $10,15,20,25,30,35,40,45,50,75,100$ |

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## Mounting Bracket Part Nos. for the 25A-Series

| Bore size [mm] |  | Foot*1 | Compact foot*1 | Flange | Double clevis |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 12 | Without auto switch | 25A-CQ-L012 | 25A-CQ-LC012 | 25A-CQ-F012 | 25-CQ-D012 |
|  | With auto switch | 25A-CQ-LZ12 | 25A-CQ-LCZ12 |  |  |
| 16 | Without auto switch | 25A-CQ-L016 | 25A-CQ-LC016 | 25A-CQ-F016 | 25-CQ-D016 |
|  | With auto switch | 25A-CQ-LZ16 | 25A-CQ-LCZ16 |  |  |
| 20 | Without auto switch | 25A-CQ-L020 | 25A-CQ-LC020 | 25A-CQ-F020 | 25-CQ-D020 |
|  | With auto switch | 25A-CQ-LZ20 | 25A-CQ-LCZ20 |  |  |
| 25 | Without auto switch | 25A-CQ-L025 | 25A-CQ-LC025 | 25A-CQ-F025 | 25-CQ-D025 |
|  | With auto switch | 25A-CQ-LZ25 | 25A-CQ-LCZ25 |  |  |
|  | 32 | 25A-CQ-L032 | 25A-CQ-LC032 | 25A-CQ-F032 | 25-CQ-D032 |
|  | 40 | 25A-CQ-L040 | 25A-CQ-LC040 | 25A-CQ-F040 | 25-CQ-D040 |
|  | 50 | 25A-CQ-L050 | 25A-CQ-LC050 | 25A-CQ-F050 | 25-CQ-D050 |
|  | 63 | 25A-CQ-L063 | 25A-CQ-LC063 | 25A-CQ-F063 | 25-CQ-D063 |
|  | 80 | 25A-CQ-L080 | 25A-CQ-LC080 | 25A-CQ-F080 | 25-CQ-D080 |
|  | 100 | 25A-CQ-L100 | 25A-CQ-LC100 | 25A-CQ-F100 | 25-CQ-D100 |

*1 When ordering foot and compact foot brackets, the required quantity will be different depending on the bore size.
$\varnothing 12$ to $\varnothing 25$ :

- Without auto switch: Order 2 pieces per cylinder.
- With auto switch: Order 1 piece per cylinder. (Part number for a set of 2 foot brackets)
$\varnothing 32$ to $\varnothing 100$ :
- Order 2 pieces per cylinder.
* Parts included with each type of bracket are as follows.

Foot, Compact foot, Flange: Body mounting bolts, Double clevis: Clevis pin, Type C retaining rings for axis, Body mounting bolts

## Simple Joint (Standard)/ Part Nos.

| Bore size [mm] | Joint | Type A mounting <br> bracket | Type B mounting <br> bracket |
| :---: | :---: | :---: | :---: |
| $\mathbf{3 2 , 4 0}$ | YU-03 | YA-03 | YB-03 |
| $\mathbf{5 0 , 6 3}$ | YU-05 | YA-05 | YB-05 |
| $\mathbf{8 0}$ | YU-08 | YA-08 | YB-08 |
| $\mathbf{1 0 0}$ | YU-10 | YA-10 | YB-10 |

- Joints are not included with type A or B mounting brackets. Order them separately. (Example)


# Compact Cylinder: Standard Double Acting, Double Rod 25A-CQ2W Series $\varnothing 12, \varnothing 16, \varnothing 20, \varnothing 25, \varnothing 32, \varnothing 40, \varnothing 50, \varnothing 63, \varnothing 80, \varnothing 100$ 




| Bore size [mm] |  | Foot*1 | Compact foot*1 | Flange |
| :---: | :---: | :---: | :---: | :---: |
| 12 | Without auto switch | 25A-CQ-L012 | 25A-CQ-LC012 | 25A-CQ-F012 |
|  | With auto switch | 25A-CQ-LZ12 | 25A-CQ-LCZ12 |  |
| 16 | Without auto switch | 25A-CQ-L016 | 25A-CQ-LC016 | 25A-CQ-F016 |
|  | With auto switch | 25A-CQ-LZ16 | 25A-CQ-LCZ16 |  |
| 20 | Without auto switch | 25A-CQ-L020 | 25A-CQ-LC020 | 25A-CQ-F020 |
|  | With auto switch | 25A-CQ-LZ20 | 25A-CQ-LCZ20 |  |
| 25 | Without auto switch | 25A-CQ-L025 | 25A-CQ-LC025 | 25A-CQ-F025 |
|  | With auto switch | 25A-CQ-LZ25 | 25A-CQ-LCZ25 |  |
|  | 32 | 25A-CQ-L032 | 25A-CQ-LC032 | 25A-CQ-F032 |
|  | 40 | 25A-CQ-L040 | 25A-CQ-LC040 | 25A-CQ-F040 |
|  | 50 | 25A-CQ-L050 | 25A-CQ-LC050 | 25A-CQ-F050 |
|  | 63 | 25A-CQ-L063 | 25A-CQ-LC063 | 25A-CQ-F063 |
|  | 80 | 25A-CQ-L080 | 25A-CQ-LC080 | 25A-CQ-F080 |
|  | 100 | 25A-CQ-L100 | 25A-CQ-LC100 | 25A-CQ-F100 |

*1 When ordering foot and compact foot brackets, the required quantity will be different depending on the bore size.
$\varnothing 12$ to $\varnothing 25$ :
Without auto switch: Order 2 pieces per cylinder.
With auto switch: Order 1 piece per cylinder. (Part number for a set of 2 foot brackets)
$\varnothing 32$ to $\varnothing 100$ :
Order 2 pieces per cylinder.

* Body mounting bolts are included for each bracket.

| $\mathbf{1 2 , 1 6}$ | $5,10,15,20,25,30$ |
| :---: | :--- |
| $\mathbf{2 0 , 2 5}$ | $5,10,15,20,25,30,35,40,45,50$ |
| $\mathbf{3 2 , 4 0}$ | $5,10,15,20,25,30,35,40,45,50,75,100$ |
| $\mathbf{5 0}$ to $\mathbf{1 0 0}$ | $10,15,20,25,30,35,40,45,50,75,100$ |

- Port thread type

| Nil | M thread | $\varnothing 12$ to $\varnothing 25$ |
| :---: | :---: | :---: |
|  | Rc |  |
| TN | NPT |  |
| TF | G |  |

Built-in Magnet Cylinder Model
If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for
the auto switch.
(Example) 25A-CDQ2WL32-25DZ

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## Simple Joint (Standard)/Part Nos.

| Bore size [mm] | Joint | Type A mounting <br> bracket | Type B mounting <br> bracket |
| :---: | :---: | :---: | :---: |
| $\mathbf{3 2 , 4 0}$ | YU-03 | YA-03 | YB-03 |
| $\mathbf{5 0 , 6 3}$ | YU-05 | YA-05 | YB-05 |
| $\mathbf{8 0}$ | YU-08 | YA-08 | YB-08 |
| $\mathbf{1 0 0}$ | YU-10 | YA-10 | YB-10 |

<Ordering>
Joints are not included with type A or B mounting brackets. Order them separately. (Example)
Bore size $\varnothing 40 \quad$ Part no.
Type A mounting bracket .......... YA-03
Joint ......................................... YU-03

# Compact Cylinder: Large Bore Size Double Acting, Single Rod 25A-CQ2 Series 

 $\varnothing 125, \varnothing 140, \varnothing 160, \varnothing 180, \varnothing 200$
## $\xrightarrow[\text { compatible with }]{25 A}-C$ secondary batteries

| With auto switch |  |
| :---: | :--- |
| Nil | Without magnet <br> for switch*1 |
| D | With auto switch <br> (Built-in magnet) |

*1 In the case of without magnet for switch, auto switch cannot be mounted.

Mounting ${ }^{\circ}$
B
Through-hole/
Both ends tapped common (Standard)

* Cylinder mounting bolts are not included.


Number of auto switches

| $\mathbf{N i l}$ | 2 |
| :---: | :---: |
| $\mathbf{S}$ | 1 |
| $\mathbf{n}$ | n |

- Auto switch

Nil $\quad$ Without auto switch

* Click here for details on applicable auto switch models.

Auto switch mounting groove

| $\mathbf{Z}$ | 4 surfaces |
| :--- | :--- |

- Body option

| NiI | Standard (Rod end female thread) |
| :---: | :---: |

Cushion

| C | Rubber bumper |
| :--- | :--- |

Action
D

- Cylinder stroke [mm]

| Bore size | Standard stroke |
| :---: | :--- |
| $\mathbf{1 2 5 , 1 4 0 , 1 6 0}$ | $10,20,30,40,50,75,100,125$, |
| $\mathbf{1 8 0 , 2 0 0}$ | $150,175,200,250,300$ |

## Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.
(Example) 25A-CDQ2B140-30DCZ

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Compact Cylinder: Long Stroke Double Acting, Single Rod 25A-CQ2 Series ø32, ø40, ø50, ø63, ø80, ø100 

# 25A-C DQ2 A 32 $\square$-200DC $\square$ Z-M9BW 

Series compatible with
secondary batteries
With auto switch ${ }^{\circ}$

| NiI | Without magnet <br> for switch*1 |
| :---: | :---: |
| D | With auto switch <br> (Built-in magnet) |

*1 In the case of without magnet for switch, auto switch cannot be mounted.

|  | Mounting e- |
| :---: | :---: |
| A | Both ends tapped |
| L | Foot |
| LC | Compact foot |
| F | Rod flange |
| G | Head flange |
| D | Double clevis |

* Mounting brackets are shipped together with the product but do not come assembled.


## Built-in Magnet Cylinder Model



Number of auto switches

| Nil | 2 |
| :---: | :---: |
| $\mathbf{S}$ | 1 |
| $\mathbf{n}$ | n |

- Auto switch

Nil Without auto switch

* Click here for details on applicable auto switch models.
-Auto switch mounting groove

| $\mathbf{Z}$ | 4 surfaces |
| :--- | :--- |

- Body option

| Nil | Standard (Rod end female thread) |
| :---: | :---: |


| M | Rod end male thread |
| :--- | :--- |

Cushion
C Rubber bumper

- Action

D Double acting
-Cylinder stroke [mm]

| Bore size | Standard stroke |
| :---: | :---: |
| $\mathbf{3 2 , 4 0 , 5 0}$ | $125,150,175,200,250,300$ |
| $\mathbf{6 3 , 8 0}, \mathbf{1 0 0}$ |  |

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.
(Example) 25A-CDQ2L40-200DCZ

| Nil | Rc |
| :---: | :---: |
| TN | NPT |
| TF | G |


| $\mathbf{3 2}$ | 32 mm |
| :---: | :---: |
| $\mathbf{4 0}$ | 40 mm |
| $\mathbf{5 0}$ | 50 mm |
| $\mathbf{6 3}$ | 63 mm |
| $\mathbf{8 0}$ | 80 mm |
| $\mathbf{1 0 0}$ | 100 mm |

Port thread type ${ }^{\circ}$

# Compact Cylinder: Anti-lateral Load 25A-CQ2 $\square S$ Series $\varnothing 32, \varnothing 40, \varnothing 50, \varnothing 63, \varnothing 80, \varnothing 100$ <br> RoHS 

How to Order

## 25A-C Compatible secondary with secondary

 batteriesWith auto switch.

| Nil | Without magnet <br> for switch*1 |
| :---: | :--- |
| D | With auto switch <br> (Built-in magnet) |

*1 In the case of without magnet for switch, auto switch cannot be mounted.

|  | Mounting |
| :---: | :---: |
| B | Through-hole (Standard) |
| A | Both ends tapped |
| L | Foot |
| LC | Compact foot |
| F | Rod flange |
| G | Head flange |
| D | Double clevis |

* Mounting brackets are shipped together with the product but do not come assembled
* Cylinder mounting bolts are not included.

Type

| $\mathbf{S}$ | Anti-lateral load |
| :--- | :--- |

Bore size

| $\mathbf{3 2}$ | 32 mm |
| :---: | :---: |
| $\mathbf{4 0}$ | 40 mm |
| $\mathbf{5 0}$ | 50 mm |
| $\mathbf{6 3}$ | 63 mm |
| $\mathbf{8 0}$ | 80 mm |
| $\mathbf{1 0 0}$ | 100 mm |

- Port thread type

| Nil | Rc |
| :---: | :---: |
| TN | NPT |
| TF | G |

## Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.
(Example) 25A-CDQ2LS40-30DCZ

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

Mounting Bracket Part Nos. for the 25A-Series

| Bore size [mm] | Foot*1 | Compact foot*1 | Flange | Double clevis |
| :---: | :---: | :---: | :---: | :---: |
| $\mathbf{3 2}$ | $25 A-C Q-L 032$ | $25 A-C Q-L C 032$ | $25 A-C Q-F 032$ | $25-C Q-D 032$ |
| $\mathbf{4 0}$ | $25 A-C Q-L 040$ | $25 A-C Q-L C 040$ | $25 A-C Q-F 040$ | $25-C Q-D 040$ |
| $\mathbf{5 0}$ | $25 A-C Q-L 050$ | $25 A-C Q-L C 050$ | $25 A-C Q-F 050$ | $25-C Q-D 050$ |
| $\mathbf{6 3}$ | $25 A-C Q-L 063$ | $25 A-C Q-L C 063$ | $25 A-C Q-F 063$ | $25-C Q-D 063$ |
| $\mathbf{8 0}$ | $25 A-C Q-L 080$ | $25 A-C Q-L C 080$ | $25 A-C Q-F 080$ | $25-C Q-D 080$ |
| $\mathbf{1 0 0}$ | $25 A-C Q-L 100$ | $25 A-C Q-L C 100$ | $25 A-C Q-F 100$ | $25-C Q-D 100$ |

[^22]
# Compact Cylinder: With End Lock 25A-CBQ2 Series ø20, ø25, ø32, ø40, ø50, ø63, ø80, ø100 

## How to Order



## Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.
(Example) 25A-CDBQ2L32-30DC-RN

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

Mounting Bracket Part Nos. for the 25A-Series

| Bore size [mm] | Foot*1 | Compact foot*1 | Flange | Double clevis |
| :---: | :---: | :---: | :---: | :---: |
| $\mathbf{2 0}$ | 25A-CQS-L020 | 25A-CQS-LC020 | $25 A-C Q S-F 020$ | $25-C Q S-D 020$ |
| $\mathbf{2 5}$ | $25 A-C Q S-L 025$ | $25 A-C Q S-L C 025$ | $25 A-C Q S-F 025$ | $25-C Q S-D 025$ |
| $\mathbf{3 2}$ | $25 A-C Q-L 032$ | $25 A-C Q-L C 032$ | $25 A-C Q-F 032$ | $25-C Q-D 032$ |
| $\mathbf{4 0}$ | $25 A-C Q-L 040$ | $25 A-C Q-L C 040$ | $25 A-C Q-F 040$ | $25-C Q-D 040$ |
| $\mathbf{5 0}$ | $25 A-C Q-L 050$ | $25 A-C Q-L C 050$ | $25 A-C Q-F 050$ | $25-C Q-D 050$ |
| $\mathbf{6 3}$ | $25 A-C Q-L 063$ | $25 A-C Q-L C 063$ | $25 A-C Q-F 063$ | $25-C Q-D 063$ |
| $\mathbf{8 0}$ | $25 A-C Q-L 080$ | $25 A-C Q-L C 080$ | $25 A-C Q-F 080$ | $25-C Q-D 080$ |
| $\mathbf{1 0 0}$ | $25 A-C Q-L 100$ | $25 A-C Q-L C 100$ | $25 A-C Q-F 100$ | $25-C Q-D 100$ |

[^23]
# Plate Cylinder: Double Acting, Single Rod 25A-MU Series 

ø25, ø32, ø40, ø50, ø63


* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Mechanically Jointed Rodless Cylinder Basic Type 25A-MY1B Series $\varnothing 16, \varnothing 20, \varnothing 25, \varnothing 32, \varnothing 40, \varnothing 50, \varnothing 63$ 

RoHS
How to Order


[^24]* The stroke adjustment unit H unit is not available for the 25A-MY1B16.


# Mechanically Jointed Rodless Cylinder Slide Bearing Guide Type 25A-MY1M Series $\varnothing 16, \varnothing 20, \varnothing 25, \varnothing 32, \varnothing 40, \varnothing 50, \varnothing 63$ 

RoHS
How to Order


Click here for details on applicable auto switch models.

| Bore size | Standard stroke* | Long stroke | Maximum manufacturable stroke |
| :---: | :---: | :---: | :---: |
| 16 | $\begin{aligned} & 100,200,300,400,500,600, \\ & 700,800,900,1000,1200,1400 \\ & 1600,1800,2000 \end{aligned}$ | Strokes of 2001 to 3000 mm ( 1 mm increments) exceeding the standard stroke | 3000 |
| $\begin{aligned} & 20,25 \\ & 32,40 \\ & 50,63 \\ & \hline \end{aligned}$ | * The stroke can be manufactured in 1 mm increments from 1 mm stroke. | Strokes of 2001 to 5000 mm ( 1 mm increments) exceeding the standard stroke | 5000 |

Ordering example

* Long stroke can be ordered the same as the standard stroke. 25A-MY1M20-3000L-M9BW
* Please be advised that with a stroke of 49 mm or less, there are cases where auto switch mounting is not possible, and the performance of the air cushion may decline.

Stroke adjustment unit symbol

|  |  |  | Right side stroke adjustment unit |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Without unit | A: With adjustment bolt |  |  | L: With low load shock absorber + Adjustment bolt |  |  | H : With high load shock absorber + Adjustment bolt |  |  |
|  |  |  |  | With short spacer | With long spacer |  | With short spacer | With long spacer |  | With short spacer | With long spacer |
|  | Without unit |  |  | Nil | SA | SA6 | SA7 | SL | SL6 | SL7 | SH | SH6 | SH7 |
|  | A: With adjustment bolt |  | AS | A | AA6 | AA7 | AL | AL6 | AL7 | AH | AH6 | AH7 |
|  |  | With short spacer | A6S | A6A | A6 | A6A7 | A6L | A6L6 | A6L7 | A6H | A6H6 | A6H7 |
|  |  | With long spacer | A7S | A7A | A7A6 | A7 | A7L | A7L6 | A7L7 | A7H | A7H6 | A7H7 |
| - | L: With low load shock absorber + |  | LS | LA | LA6 | LA7 | L | LL6 | LL7 | LH | LH6 | LH7 |
|  |  | With short spacer | L6S | L6A | L6A6 | L6A7 | L6L | L6 | L6L7 | L6H | L6H6 | L6H7 |
|  |  | With long spacer | L7S | L7A | L7A6 | L7A7 | L7L | L7L6 | L7 | L7H | L7H6 | L7H7 |
| $\bigcirc$ | H: With high load shock absorber + |  | HS | HA | HA6 | HA7 | HL | HL6 | HL7 | H | HH6 | HH7 |
| $\left\|\begin{array}{c} \bar{m} \\ \hline \end{array}\right\|$ |  | With short spacer | H6S | H6A | H6A6 | H6A7 | H6L | H6L6 | H6L7 | H6H | H6 | H6H7 |
| $\pm$ |  | With long spacer | H7S | H7A | H7A6 | H7A7 | H7L | H7L6 | H7L7 | H7H | H7H6 | H7 |

Stroke adjustment unit mounting diagram
Stroke adjustment unit Intermediate


Example of H 6 H 7 attachment


* Spacers are used to fix the stroke adjustment unit at an intermediate stroke position.
* Stroke adjustment unit H is not available for 25A-MY1M16.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Mechanically Jointed Rodless Cylinder Cam Follower Guide Type 25A-MY1C Series $\varnothing 16, \varnothing 20, \varnothing 25, \varnothing 32, \varnothing 40, \varnothing 50, \varnothing 63$ 

How to Order


40, 50, 63

| $\begin{aligned} & 100,200,300,400,500,600 \\ & 700,800,900,1000,1200 \\ & 1400,1600,1800,2000 \\ & \text { * The stroke can be } \\ & \text { manufactured in } 1 \mathrm{~mm} \\ & \text { increments from } 1 \mathrm{~mm} \text { stroke. } \end{aligned}$ |
| :---: |
|  |  |
|  |  |
|  |  |
|  |  |


| Long stroke | Maximum manufacturable stroke |
| :--- | :---: |
| Strokes of 2001 to 3000 mm <br> $(1 \mathrm{~mm}$ increments) exceeding <br> the standard stroke | 3000 |
| Strokes of 2001 to 5000 mm <br> $(1 \mathrm{~mm}$ increments) exceeding <br> the standard stroke | 5000 |

Ordering example

* Long stroke can be ordered the same as the standard stroke. 25A-MY1C20-3000L-M9BW

Please be advised that with a stroke of 49 mm or less, there are cases where auto switch mounting
is not possible, and the performance of the air cushion may decline.
Stroke adjustment unit symbold

|  |  |  | Right side stroke adjustment unit |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Without unit | A: With adjustment bolt |  |  | L: With low load shock absorber + Adjustment bolt |  |  | H : With high load shock absorber + Adjustment bolt |  |  |
|  |  |  |  | With short spacer | With long spacer |  | With short spacer | With long spacer |  | With short spacer | With long spacer |
|  | Without unit |  |  | Nil | SA | SA6 | SA7 | SL | SL6 | SL7 | SH | SH6 | SH7 |
|  | A: With | djustment bolt | AS | A | AA6 | AA7 | AL | AL6 | AL7 | AH | AH6 | AH7 |
|  |  | With short spacer | A6S | A6A | A6 | A6A7 | A6L | A6L6 | A6L7 | A6H | A6H6 | A6H7 |
|  |  | With long spacer | A7S | A7A | A7A6 | A7 | A7L | A7L6 | A7L7 | A7H | A7H6 | A7H |
| L L: With low load shock absorber + |  |  | LS | LA | LA6 | LA7 | L | LL6 | LL7 | LH | LH6 | LH7 |
| © Adjustment <br> On bolt |  | With short spacer | L6S | L6A | L6A6 | L6A7 | L6L | L6 | L6L7 | L6H | L6H6 | L6H7 |
|  |  | With long spacer | L7S | L7A | L7A6 | L7A7 | L7L | L7L6 | L7 | L7H | L7H6 | L7H7 |
| H: With high load shock absorber + |  |  | HS | HA | HA6 | HA7 | HL | HL6 | HL7 | H | HH6 | HH7 |
| Adjustment bolt |  | With short spacer | H6S | H6A | H6A6 | H6A7 | H6L | H6L6 | H6L7 | H6H | H6 | H6H7 |
|  |  | With long spacer | H7S | H7A | H7A6 | H7A7 | H7L | H7L6 | H7L7 | H7H | H7H6 | H7 |

Stroke adjustment unit mounting diagram
Stroke adjustment unit Intermediate fixing spacer


Example of H 6 H 7 attachment


[^25]* The 25A- series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catalog.


# Mechanically Jointed Rodless Cylinder Linear Guide Type 25A-MY1H Series ø16, ø20, ø25, ø32, ø40 

How to Order


[^26]* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Mechanically Jointed Rodless Cylinder Cam Follower Guide Type 25A-MY2C Series <br> ø16, ø25, ø40 <br> RoHS 

How to Order


* Click here for details on applicable auto switch models.

| Bore size <br> $[\mathrm{mm}]$ | Standard stroke $[\mathrm{mm}] * 1$ | Max. manufacturable <br> stroke $[\mathrm{mm}]$ |
| :---: | :---: | :---: |
| $\mathbf{1 6}$ | $100,200,300,400,500,600,700,800$, | 3000 |
| $\mathbf{2 5 , 4 0}$ | $900,1000,1200,1400,1600,1800,2000$ | 5000 |

*1 Strokes are manufacturable in 1 mm increments, up to the maximum stroke. However, please be advised that with a stroke of 49 mm or less, there are cases where auto switch mounting is not possible, and the performance of the air cushion may decline.

* Long stroke can be ordered the same as the standard stroke. 25A-MY2C25G-3000L-M9BW

Stroke adjustment unit symbol
Stroke adjustment unit mounting diagram

|  |  |  | Right side stroke adjustment unit |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Without unit | L: With low load shock absorber |  |  | H : With high load shock absorber |  |  |
|  |  |  |  | With short spacer | With long spacer |  | With short spacer | With long spacer |
|  | Without unit |  |  | Nil | SL | SL6 | SL7 | SH | SH6 | SH7 |
|  | L: With low load shock |  | LS | L | LL6 | LL7 | LH | LH6 | LH7 |
|  | absorber | With short spacer | L6S | L6L | L6 | L6L7 | L6H | L6H6 | L6H7 |
|  |  | With long spacer | L7S | L7L | L7L6 | L7 | L7H | L7H6 | L7H7 |
|  | H: With high load shock |  | HS | HL | HL6 | HL7 | H | HH6 | HH7 |
|  | absorber | With short spacer | H6S | H6L | H6L6 | H6L7 | H6H | H6 | H6H7 |
|  |  | With long spacer | H7S | H7L | H7L6 | H7L7 | H7H | H7H6 | H7 |



Example of L6L7 attachment

[^27]* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Mechanically Jointed Rodless Cylinder Linear Guide Type 25A-MY2H/HT Series ø16, ø25, ø40 

How to Order


* Click here for details on applicable auto switch models.

| Bore size <br> $[\mathrm{mm}]$ | Standard stroke [mm]*1 | Max. manufacturable <br> stroke $[\mathrm{mm}]$ |
| :---: | :---: | :---: |
| $\mathbf{1 6}$ | $50,100,150,200,250,300$, | 1000 |
| $\mathbf{2 5 , 4 0}$ | $350,400,450,500,550,600$ | 1500 |

*1 Strokes are manufacturable in 1 mm increments, up to the maximum stroke.

* Intermediate stroke can be ordered the same as the standard stroke. 25A-MY2H16G-80-M9BW
* Long stroke can be ordered the same as the standard stroke. 25A-MY2H25G-800L-M9BW

Stroke adjustment unit symbol

|  |  |  | Right side stroke adjustment unit |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Without unit | L: With low load shock absorber |  |  | H: With high load shock absorber |  |  |
|  |  |  |  | With short spacer | With long spacer |  | With short spacer | With long spacer |
|  | Without unit |  |  | Nil | SL | SL6 | SL7 | SH | SH6 | SH7 |
|  | L: With low load shock |  | LS | L | LL6 | LL7 | LH | LH6 | LH7 |
|  | absorber | With short spacer | L6S | L6L | L6 | L6L7 | L6H | L6H6 | L6H7 |
|  |  | With long spacer | L7S | L7L | L7L6 | L7 | L7H | L7H6 | L7H7 |
|  | H: With high load shock |  | HS | HL | HL6 | HL7 | H | HH6 | HH7 |
|  | absorber | With short spacer | H6S | H6L | H6L6 | H6L7 | H6H | H6 | H6H7 |
|  |  | With long spacer | H7S | H7L | H7L6 | H7L7 | H7H | H7H6 | H7 |



* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Mechanically Jointed Rodless Cylinder/Basic Type 25A-MY3A/3B Series $\varnothing 16, \varnothing 20, \varnothing 25, \varnothing 32, \varnothing 40, \varnothing 50, \varnothing 63$ 



Stroke adjustment unit symbol ${ }^{\circ}$

|  |  |  | Right side stroke adjustment unit |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Without unit | L: With low load shock absorber <br> + Adjustment bolt |  |  | H: With high load shock absorber <br> + Adjustment bolt |  |  |
|  |  |  |  | With short spacer | With long spacer |  | With short spacer | With long spacer |
|  | Without unit |  |  | Nil | SL | SL6 | SL7 | SH | SH6 | SH7 |
|  | L: With low lo Adjustment bolt | oad shock absorber + | LS | L | LL6 | LL7 | LH | LH6 | LH7 |
|  |  | With short spacer | L6S | L6L | L6 | L6L7 | L6H | L6H6 | L6H7 |
|  |  | With long spacer | L7S | L7L | L7L6 | L7 | L7H | L7H6 | L7H7 |
|  | H: With high load shock absorber + |  | HS | HL | HL6 | HL7 | H | HH6 | HH7 |
|  | Adjustment bolt | With short spacer | H6S | H6L | H6L6 | H6L7 | H6H | H6 | H6H7 |
|  |  | With long spacer | H7S | H7L | H7L6 | H7L7 | H7H | H7H6 | H7 |

Stroke adjustment unit mounting diagram


[^28]* The 25A- series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catallog.


Ordering example

* Long stroke can be ordered the same as the standard stroke. 25A-MY3M25-3000L-M9BW
* Please be advised that with a stroke of 49 mm or less, there are cases where auto switch mounting is not possible, and the performance of the air cushion may decline.

Stroke adjustment unit symbold

|  |  |  | Right side stroke adjustment unit |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Without unit | L: With low load shock absorber <br> + Adjustment bolt |  |  | H: With high load shock absorber <br> + Adjustment bolt |  |  |
|  |  |  |  | With short spacer | With long spacer |  | With short spacer | With long spacer |
|  | Without unit |  |  | Nil | SL | SL6 | SL7 | SH | SH6 | SH7 |
|  | L: With low load shock absorber + |  | LS | L | LL6 | LL7 | LH | LH6 | LH7 |
|  | Adjustment bolt | With short spacer | L6S | L6L | L6 | L6L7 | L6H | L6H6 | L6H7 |
|  |  | With long spacer | L7S | L7L | L7L6 | L7 | L7H | L7H6 | L7H7 |
|  | H: With high load shock absorber + |  | HS | HL | HL6 | HL7 | H | HH6 | HH7 |
|  | Adjustment bolt | With short spacer | H6S | H6L | H6L6 | H6L7 | H6H | H6 | H6H7 |
|  |  | With long spacer | H7S | H7L | H7L6 | H7L7 | H7H | H7H6 | H7 |

[^29]* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Magnetically Coupled Rodless Cylinder/Basic Type 25A-CY3B Series $\varnothing 6, \varnothing 10, \varnothing 15, \varnothing 20, \varnothing 25, \varnothing 32, \varnothing 40, \varnothing 50, \varnothing 63$ 

How to Order


Standard stroke [mm]

| Bore size | Standard stroke | Max. manufacturable stroke |
| :---: | :---: | :---: |
| 6 | 50, 100, 150, 200 | 300 |
| 10 | 50, 100, 150, 200, 250, 300 | 500 |
| 15 | $\begin{aligned} & 50,100,150,200,250,300,350 \\ & 400,450,500 \end{aligned}$ | 1000 |
| 20 |  | 1500 |
| 25 | $400,450,500,600,700,800$ | 2000 |
| 32 |  |  |
| 40, 50, 63 | $\begin{aligned} & 100,150,200,250,300,350,400 \\ & 450,500,600,700,800,900,1000 \end{aligned}$ |  |

* Please contact SMC if the maximum stroke is exceeded.
* The longer the stroke, the larger the amount of deflection in a cylinder tube. Pay attention to the mounting bracket and clearance value.
* Intermediate stroke is available in 1 mm increments.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Magnetically Coupled Rodless Cylinder/Direct Mount Type 25A-CY3R Series $\varnothing 6, \varnothing 10, \varnothing 15, \varnothing 20, \varnothing 25, \varnothing 32, \varnothing 40, \varnothing 50, \varnothing 63$ 

How to Order


[^30]
# Compact Slide 25A-MXH Series 

ø6, ø10, ø16, ø20

How to Order


* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Air Slide Table 25A-MXS Series ø6, ø8, ø12, ø16, ø20, ø25 

* With shock absorber is not available in the 25A-MXS6 series.
* When the adjuster option with shock absorber is used, metal-to-metal collisions occur, and may generate dust particles.
- Adjuster option

| Nil | Without adjuster |
| :---: | :--- |
| AS | Adjuster on extension end |
| AT | Adjuster on retraction end |
| A | Adjuster on both ends |
| BS | Absorber on extension end |
| BT | Absorber on retraction end |
| B | Absorber on both ends |
| ASBT | Adjuster on extension end <br> + Absorber on retraction end |
| BSAT | Absorber on extension end <br> + Adjuster on retraction end |

## Corrosion Resistant Air Slide Table

(Made to order: 25A-MXS $\square-X 1949$ )
The material of the head cap part has been changed to a highly corrosion-resistant material.
Please contact your local sales representative for more details.

[^31]

For details, refer to the Web Catalog.

# Air Slide Table Double-ported Type <br> RoHS 25A-MXQ $\square A$ Series $\varnothing 6, \varnothing 8, \varnothing 12, \varnothing 16, \varnothing 20, \varnothing 25$ 

How to Order

(5) Functional options

| Symbol | Functional option |
| :---: | :--- |
| Nil | Without functional option |
| $\mathbf{1}$ | With buffer |
| $\mathbf{2}$ | With end lock |
| $\mathbf{3}$ | Axial piping |
| $\mathbf{4}$ | With buffer, end lock |
| $\mathbf{5}$ | With buffer, axial piping |

Number of auto switches

| Nil | 2 |
| :---: | :---: |
| $\mathbf{S}$ | 1 |
| $\mathbf{n}$ | n |

## 6 Auto switch

Nil Without auto switch (Built-in magnet)

* Click here for details on applicable auto switch models.

Adjuster options/Functional option combinations

| Symbol | Adjuster type*6 |  |  |  | Adjuster mounting position*1 |  | Functional option combination |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Nil | 1 | 2 | 3 | 4 | 5 |
|  |  |  |  |  | Extension stroke end | Retraction stroke end | Without functional option | $\begin{gathered} *{ }^{* 2 * 7} \\ \text { With } \\ \text { buffer } \end{gathered}$ | With end lock | $\begin{gathered} \text { Axial }^{* 5} \\ \text { piping } \end{gathered}$ | $\begin{gathered} * 2 * 7 \\ \text { With buffer, } \\ \text { end lock } \end{gathered}$ | $* 2 * 5 * 7$ With buffer, axial piping |
| Z | Without adjuster |  |  |  |  |  |  |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| ZA | Metal stopper with bumper |  |  |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZB |  |  |  |  | $\bigcirc$ |  | $\bigcirc$ | $\times$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ |
| ZC |  |  |  |  |  | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZD | Rubber stopper |  |  |  | $\bigcirc$ | - | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZE |  |  |  |  | $\bigcirc$ |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| ZF |  |  |  |  |  | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZG | Shock absorber/RJ |  |  |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZH |  |  |  |  | $\bigcirc$ |  | $\bigcirc$ | $\times$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ |
| ZJ |  |  |  |  |  | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZK | Metal stopper |  |  |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZL |  |  |  |  | $\bigcirc$ |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| ZM |  |  |  |  |  | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZN | Shorter total length type*3 |  | $\begin{array}{\|l\|l} \hline & V \\ \hline & \\ \hline \end{array}$ | Without adjuster |  |  | $\bigcirc$ | O*4 | $\times$ | $\bigcirc$ | $\times$ | O*4 |
| ZP |  |  | Rubber stopper | $\bigcirc$ |  | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZQ |  |  | Shock absorber/RJ | $\bigcirc$ |  | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZS |  |  | Metal stopper with bumper | $\bigcirc$ |  | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZT |  |  | Metal stopper | $\bigcirc$ |  | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZBF |  | Metalstopper with bumper |  |  | Rubber stopper | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZBJ |  |  |  |  | Shock absorber/RJ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZBM |  |  |  |  | Metal stopper | - | - | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZEC |  | Rubber stopper |  |  | Metal stopper with bumper | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZEJ |  |  | Shock absorber/RJ |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZEM |  |  | Metal stopper |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZHC |  | Shock absorber/RJ |  | Metal stopper with bumper | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZHF |  |  |  | Rubber stopper | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZHM | . |  |  | Metal stopper | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZLC | Metal stopper |  |  | Metal stopper with bumper | $\bigcirc$ | - | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZLF |  |  |  | Rubber stopper | - | - | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZLJ |  |  |  | Shock absorber/RJ | $\bigcirc$ | - | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |

- Shipped together with the product, but not assembled Without any symbol for the adjuster mounting position: The adjuster can be mounted afterward.
*2 For the buffer mechanism, the buffer stroke will be shorter for the stroke that is adjusted by the extension stroke end adjuster.
*3 Extension stroke end adjuster mounting holes have been removed to reduce the total length of the table.
*4 The shorter total length type can be used, but a retraction stroke end adjuster cannot be mounted afterward.
*5 There is no piping port on the side surface of the product.
*6 The metal stopper with bumper option is not available for $\varnothing 6$.
*7 As there is no magnet in the buffer mechanism, auto switches cannot be used on the buffer part.

Adjuster Mounting Position


Extend $\longrightarrow$ Retract

Shorter total length type


Extension stroke end adjuster mounting holes have been removed to reduce the total length of the table.

[^32]* The 25A- series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catalog.


# Air Slide Table Low Thrust with High Rigidity Type <br> RoHS 25A-MXQ $\square B$ Series $\varnothing 6, \varnothing 8, \varnothing 12, \varnothing 16, \varnothing 20$ 

## How to Order



|  | (2) Body option |  | (3) Standard stroke [mm] |
| :---: | :---: | :---: | :---: |
|  | Standard type | Symmetric type <br> BL |  |
| 6 |  |  | 10, 20, 30, 40, 50, 75 |
| 8 |  |  | 10, 20, 30, 40, 50, 75, 100 |
| 12 |  |  | 10, 20, 30, 40, 50, 75, 100, 125 |
| 16 |  | -*1 | 10, 20, 30, 40, 50, 75, 100, 125, 150 |
| 20 |  |  | 10, 20, 30, 40, 50, 75, 100, 125, 150 |

*1 Not available, as the standard model has piping ports and auto switch mounting grooves on both sides. Please use the standard type.

## Adjuster options



## (5) Auto switch

| Nil | Without auto switch (Built-in magnet) |
| :--- | :--- |

* Click here for details on applicable auto switch models.


## 6 Number of auto switches

| Nil | 2 |
| :---: | :---: |
| $\mathbf{S}$ | 1 |
| $\mathbf{n}$ | n |

Adjuster Mounting Position


[^33]| $\begin{aligned} & 1 \\ & \text { Bore } \end{aligned}$size | (2) Body option |  |  |
| :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Standard type } \\ \text { C } \end{gathered}$ | Symmetric type CL |  |
| 8 | Swich mounting gro | Smitch mounting grove Port | 10, 20, 30, 40, 50, 75 |
| 12 |  |  | $\begin{aligned} & 10,20,30,40,50,75, \\ & 100 \end{aligned}$ |

5 Functional options

| Symbol | Functional option |
| :---: | :--- |
| Nil | Without functional option |
| 1 | With buffer |
| 2 | With end lock |
| 3 | Axial piping |
| 4 | With buffer, end lock |
| 5 | With buffer, axial piping |

6 Auto switch
Nil Without auto switch (Built-in magnet)

* Click here for details on applicable auto switch models.


## 7 Number of auto switches

| $\mathbf{N i l}$ | 2 |
| :---: | :---: |
| $\mathbf{S}$ | 1 |
| $\mathbf{n}$ | n |

(4) Adjuster options/Functional option combinations

| Symbol | Adjuster type |  |  |  | Adjuster mounting position*1 |  | Functional option combination |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Nil | 1 | 2 | 3 | 4 | 5 |
|  |  |  |  |  | Extension stroke end | Retraction stroke end | Without functional option | With buffer | With end lock | $\begin{gathered} \text { Axial }^{* 5} \\ \text { piping } \\ \hline \end{gathered}$ | With buffer, end lock | *3*5*6 With buffer, axial piping |
| Z | Without adjuster |  |  |  |  |  |  |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| ZA | Metal stopper with bumper |  |  |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZB |  |  |  |  | $\bigcirc$ |  | $\bigcirc$ | $\times$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ |
| ZC |  |  |  |  |  | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZD | Rubber stopper |  |  |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZE |  |  |  |  | $\bigcirc$ |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| ZF |  |  |  |  |  | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZG | Shock absorber/RJ |  |  |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZH |  |  |  |  | $\bigcirc$ |  | $\bigcirc$ | $\times$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ |
| ZJ |  |  |  |  |  | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZK | Metal stopper |  |  |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZL |  |  |  |  | $\bigcirc$ |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| ZM |  |  |  |  |  | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZN | Shorter overall length type*3 |  | $$ | Without adjuster |  |  | $\bigcirc$ | $\bigcirc * 4$ | $\times$ | $\bigcirc$ | $\times$ | $\bigcirc * 4$ |
| ZP |  |  | Rubber stopper | $\bigcirc$ |  | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZQ |  |  | Shock absorber/RJ | $\bigcirc$ |  | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZS |  |  | Metal stopper with bumper | $\bigcirc$ |  | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZT |  |  | Metal stopper | $\bigcirc$ |  | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZBF |  | Metal stopper with bumper |  | $$ | Rubber stopper | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZBJ |  |  |  |  | Shock absorber/RJ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZBM |  |  |  |  | Metal stopper | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZEC |  | Rubber stopper |  |  | Metal stopper with bumper | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZEJ |  |  | Shock absorber/RJ |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZEM | $\begin{gathered} 0 \\ \frac{0}{o} \\ \frac{c}{\omega} \\ \hline \end{gathered}$ |  | Metal stopper |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZHC |  | Shock absorber/RJ |  | Metal stopper with bumper | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZHF |  |  |  | Rubber stopper | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZHM | . |  |  | Metal stopper | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZLC | $\left\lvert\, \begin{gathered} \infty \\ \frac{0}{0} \end{gathered}\right.$ | Metal stopper |  | Metal stopper with bumper | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZLF | $\stackrel{ \pm}{\times}$ |  |  | Rubber stopper | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZLJ | Ш |  |  | Shock absorber/RJ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |

*1 Shipped together with the product, but not assembled Without any symbol for the adjuster mounting position: The adjuster can be mounted afterward.
*2 For the buffer mechanism, the buffer stroke will be shorter for the stroke that is adjusted by the extension stroke end adjuster.
*3 Extension stroke end adjuster mounting holes have been removed to reduce the total length of the table.
*4 The shorter total length type can be used, but a retraction stroke end adjuster cannot be mounted afterward.
*5 There is no piping port on the side surface of the product. *6 As there is no magnet in the buffer mechanism, auto switches cannot be used on the buffer part.

## Adjuster Mounting Position



[^34]
## Air Slide Table

Height Interchangeable Type
RoHS
25A-MXQ Series
$\varnothing 6, \varnothing 8, \varnothing 12, \varnothing 16, \varnothing 20, \varnothing 25$
How to Order

##  secondary batteries


*1 Not available, as the standard model has piping ports and auto switch mounting grooves on both sides. Please use the standard type.

5
5 Functional options
Symbol Functional option Nil Without functional option

With buffer
With end lock
Axial piping
With buffer, end lock
With buffer, axial piping
(7) Number of auto switches

| $\mathbf{N i l}$ | 2 |
| :---: | :---: |
| $\mathbf{S}$ | 1 |
| $\mathbf{n}$ | n |

## 6 Auto switch

Nil $\quad$ Without auto switch (Built-in magnet)

* Click here for details on applicable auto switch models.

Adjuster options/Functional option combinations

| Symbol | Adjuster type*6 |  |  |  | Adjuster mounting position*1 |  | Functional option combination |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Nil | 1 | 2 | 3 | 4 | 5 |
|  |  |  |  |  | Extension stroke end | Retraction stroke end | Without functional option |  | With end lock | $\begin{gathered} \text { Axial } \\ \text { piping } \end{gathered}$ | With buffer, end lock | With buffer, axial piping |
| Z | Without adjuster |  |  |  |  |  |  |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| ZA | Metal stopper with bumper |  |  |  | $\bullet$ | $\bullet$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZB |  |  |  |  | $\bullet$ |  | $\bigcirc$ | $\times$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ |
| ZC |  |  |  |  |  | $\bullet$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZD | Rubber stopper |  |  |  | - | $\bullet$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZE |  |  |  |  | $\bullet$ |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| ZF |  |  |  |  |  | - | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZG | Shock absorber/RJ |  |  |  | $\bullet$ | $\bullet$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZH |  |  |  |  | $\bullet$ |  | $\bigcirc$ | $\times$ | $\bigcirc$ | $\bigcirc$ | $\times$ | $\times$ |
| ZJ |  |  |  |  |  | $\bullet$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZK | Metal stopper |  |  |  | $\bullet$ | $\bullet$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZL |  |  |  |  | $\bullet$ |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| ZM |  |  |  |  |  | $\bullet$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZN | Shorter total length type*3 |  | $\stackrel{\vdots}{\stackrel{\rightharpoonup}{\omega}} \stackrel{1}{\omega}$ | Without adjuster |  |  | $\bigcirc$ | O*4 | $\times$ | $\bigcirc$ | $\times$ | O*4 |
| ZP |  |  | Rubber stopper | $\bullet$ |  | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZQ |  |  | Shock absorber/RJ | $\bullet$ |  | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZS |  |  | Metal stopper with bumper | $\bullet$ |  | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZT |  |  | Metal stopper | $\bullet$ |  | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZBF |  |  Metal <br> stopper with  <br> bumper  |  | $\begin{aligned} & \dot{0} \\ & \frac{\pi}{0} \\ & \overline{0} \\ & 0 \end{aligned}$ | Rubber stopper | $\bullet$ | $\bullet$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZBJ |  |  |  |  | Shock absorber/RJ | $\bullet$ | $\bullet$ | 0 | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZBM |  |  |  |  | Metal stopper | $\bullet$ | $\bullet$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZEC |  | Rubber stopper |  | 0$\stackrel{y}{0}$$\vdots$$\vdots$ | Metal stopper with bumper | $\bullet$ | $\bullet$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZEJ |  |  |  |  |  | Shock absorber/RJ | $\bullet$ | $\bullet$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZEM |  |  |  | Metal stopper | $\bullet$ | $\bullet$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZHC | - | Shock absorber/RJ |  |  | Metal stopper with bumper | $\bullet$ | $\bullet$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZHF |  |  |  | Rubber stopper | $\bullet$ | $\bullet$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZHM | . |  |  | Metal stopper | $\bullet$ | $\bullet$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZLC | ¢ | Metal stopper |  | Metal stopper with bumper | $\bullet$ | $\bullet$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZLF |  |  |  | Rubber stopper | $\bullet$ | $\bullet$ | 0 | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |
| ZLJ |  |  |  | Shock absorber/RJ | $\bullet$ | $\bullet$ | $\bigcirc$ | $\times$ | $\times$ | $\bigcirc$ | $\times$ | $\times$ |

*1 : Shipped together with the product, but not assembled Without any symbol for the adjuster mounting position: The adjuster can be mounted afterward.
*2 For the buffer mechanism, the buffer stroke will be shorter for the stroke that is adjusted by the extension stroke end adjuster.
Extension stroke end adjuster mounting holes have been removed to reduce the total length of the table.
*4 The shorter total length type can be used, but a retraction stroke end adjuster cannot be mounted afterward.
*5 There is no piping port on the side surface of the product. *6 The metal stopper with bumper option is not available for $\varnothing 6$. As there is no magnet in the buffer mechanism, auto switches cannot be used on the buffer part.

Adjuster Mounting Position
Extraction stroke
end adjuster

[^35]* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Air Slide Table 

RoHS
25A-MXQ Series $\varnothing 6, \varnothing 8, \varnothing 12, \varnothing 16, \varnothing 20, \varnothing 25$

How to Order


## Corrosion Resistant Air Slide Table

(Made to order: 25A-MXQ $\square-X 771$ )
The material of the head cap part has been changed to a highly corrosion-resistant material.
Please contact your local sales representative


* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Low Profile Slide Table 25A-MXF Series 

 ø8, ø12, ø16, ø20How to Order

Series compatible with secondary batteries

Bore size/
Stroke (mm)

| $\varnothing 8$ | $10,20,30$ |
| :---: | :---: |
| $\varnothing \mathbf{1 2}$ | $20,30,50$ |
| $\varnothing 16$ | $30,50,75$ |
| $\varnothing \mathbf{2 0}$ | $30,50,75,100$ |

Number of auto switches

| Nil | 2 |
| :---: | :---: |
| $\mathbf{S}$ | 1 |
| $\mathbf{n}$ | n |

Auto switch
Nil $\quad$ Without auto switch (Built-in magnet)
Click here for details on applicable auto switch models.

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Air Slide Table <br> 25A-MXW Series ø8, ø12, ø16, ø20, ø25 

How to Order


* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Air Slide Table 25A-MXP Series 

 $\varnothing 6, \varnothing 8, \varnothing 10, \varnothing 12, \varnothing 16$

* Adjuster for 25A-MXP6 series is available for one side only.
* Shock absorber is not available in 25A-MXP6 and 25A-MXP8 series.
* When the adjuster option with shock absorber or metal stopper is used, metal-to-metal collisions occur, and may generate dust particles.
* The 25A-series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Miniature Guide Rod Cylinder 25A-MGJ Series $\varnothing 6, \varnothing 10$ 



Table (1) Standard Strokes

| Bore size $[\mathrm{mm}]$ | Standard stroke $[\mathrm{mm}]$ |
| :---: | :---: |
| $\mathbf{6}$ | $5,10,15$ |
| $\mathbf{1 0}$ | $5,10,15,20$ |

Table (2) Intermediate Stroke (by the 1 mm stroke)

| Bore size [mm] | Applicable stroke [mm] |
| :---: | :---: |
| $\mathbf{6}$ | 1 to 15 (Spacer type) |
| $\mathbf{1 0}$ | 1 to 20 (Spacer type) |
| Example | Model no.: 25A-MGJ6-9 <br> Installing a 1 mm width spacer for 25A-MGJ6-10 <br> External size: same as 25A-MGJ6-10 |

* When mounting an auto switch, the min. stroke is 4 mm .

However, only 1 auto switch can be mounted in this case.

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Compact Guide Cylinder <br> RoHS <br> 25A-MGP Series <br> $\varnothing 12, \varnothing 16, \varnothing 20, \varnothing 25, \varnothing 32, \varnothing 40, \varnothing 50, \varnothing 63, \varnothing 80, \varnothing 100$ 

How to Order


- Port thread type

| Nil | M5 $\times 0.8$ |
| :---: | :---: |
|  | Rc |
| TN | NPT |
| TF | G |

* For bore sizes $\varnothing 12$ and $\varnothing 16$, only M5 x 0.8 is available.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Compact Guide Cylinder/With Air Cushion 25A-MGP Series <br> $\varnothing 16, \varnothing 20, \varnothing 25, \varnothing 32, \varnothing 40, \varnothing 50, \varnothing 63, \varnothing 80, \varnothing 100$ 

How to Order


Port thread type

| Nil | M5 $\times 0.8$ |
| :---: | :---: |
|  | Rc |
| TN | NPT |
| TF | G |

* For bore size 16, only M5 $\times 0.8$ is available.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Compact Guide Cylinder 25A-MGPK Series <br> $\varnothing 12, \varnothing 16, \varnothing 20, \varnothing 25, \varnothing 32, \varnothing 40, \varnothing 50$ 

How to Order

## 25A-MGPK AM 32

Series compatible with secondary batteries

Compact guide cylinder



- Number of auto switches

| Nil | 2 |
| :---: | :---: |
| $\mathbf{S}$ | 1 |
| $\mathbf{n}$ | n |

Auto switch

Nil | Without auto switch |
| :---: | :---: |
| (Built-in magnet) |

Click here for details on applicable auto switch models.

- Piping port location

| Nil | Top/Side ported |
| :---: | :---: |
| $\mathbf{P}^{* 1}$ | Top ported |

*1 For bore sizes 12 and 16 only
Cylinder stroke [mm]

| Bore size $[\mathrm{mm}]$ | Standard stroke $[\mathrm{mm}]$ |
| :---: | :---: |
| $\mathbf{1 2 , 1 6}$ | $10,20,30,40,50,75,100,125,150$ |
| $\mathbf{2 0 , 2 5}$ | $20,30,40,50,75,100,125,150,175,200$ |
| $\mathbf{3 2}$ to $\mathbf{5 0}$ | $25,50,75,100,125,150,175,200$ |

* For bore sizes 12 and 16 , only M5 $\times 0.8$ is available.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Slide Unit: Built-in Shock Absorber Slide Bearing Type 



* For the strokes indicated in the parentheses of the $\varnothing 10, \varnothing 16$ and $\varnothing 25$, shock absorbers are to be mounted on both sides of the plate. For the strokes indicated in the parentheses of the ø20 and ø32, a shock absorber is to be mounted on single side of the plate.
* For the strokes other than those indicated above, refer to the Web Catalog.
* For $\varnothing 16, \varnothing 20$ and $\varnothing 25$, strokes up to 300 , and for $\varnothing 32$, strokes up to 250 are available as Made-to-

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.
(Example) 25A-CDPXWM20-100

Order.

## Built-in Magnet Cylinder Model

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Dual Rod Cylinder/Compact Type 25A-CXS J Series 

$\varnothing 6, \varnothing 10, \varnothing 15, \varnothing 20, \varnothing 25, \varnothing 32$


[^36] are the same as those of the standard model.

For details, refer to the Web Catalog.

# Dual Rod Cylinder Basic Type 

25A-CXS Series $\varnothing 6, \varnothing 10, \varnothing 15, \varnothing 20, \varnothing 25, \varnothing 32$


## Slide <br> bearing type

25A-CXSM 25


Series compatible with secondary batteries

. Number of auto switches

| $\mathbf{N i l}$ | 2 |
| :---: | :---: |
| $\mathbf{S}$ | 1 |
| $\mathbf{n}$ | n |

* Click here for details on applicable auto switch models.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.


* The 25A- series specifications and dimensions are the same as those of the standard model.


# Guide Cylinder 25A-MGG Series ø20, ø25, ø32, ø40, ø50 



| Nil | Rc |
| :---: | :---: |
| TN | NPT |
| TF | G |

Intermediate strokes and short strokes other than those listed above are produced upon receipt of order.

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Rotary Clamp Cylinder: Standard 25A-MK Series $\varnothing 12, \varnothing 16, \varnothing 20, \varnothing 25, \varnothing 32, \varnothing 40, \varnothing 50$, ø63 

How to Order


* The coil scraper is not built-in.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Stopper Cylinder/Fixed Mounting Height 25A-RSQ Series $\varnothing 12, \varnothing 16, \varnothing 20, \varnothing 32, \varnothing 40, \varnothing 50$ 

How to Order


[^37] are the same as those of the standard model.

For details, refer to the Web Catalog.

# Heavy Duty Stopper Cylinder 25A-RSH Series <br> Ø20, ø32 



* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## How to Order



Mounting Bracket Part Nos. for the 25A- Series

| Mounting bracket |  | Bore size [mm] |  |  |  |  |  | Contents |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 8 | 10 | 12 | 16 | 20 | 25 |  |
|  | Rod end nut | C85NT08A-S |  | C85NT10A-S |  | C85NT20A-S | C85NT25A-S | 1 rod end nut |
|  | Mounting nut | C85NT08B-S |  | C85NT10B-S |  | C85NT20B-S |  | 1 mounting nut |
| ¢ | Foot (1 pc.) | 25A-C85L10A |  | 25A-C85L16A |  | 25A-C85L25A |  | 1 foot bracket |
| - | Foot (2 pcs. with 1 mounting nut) | 25A-C85L10B |  | 25A-C85L16B |  | 25A-C85L25B |  | 2 foot brackets, 1 mounting nut |
| 읃 | Foot (1 pc. with 1 mounting nut) | 25A-C85L10C |  | 25A-C85L16C |  | 25A-C85L25C |  | 1 foot bracket, 1 mounting nut |
| 气 | Flange | 25A-C85F10 |  | 25A-C85F16 |  | 25A-C85F25 |  | 1 flange |
| $\Sigma$ | Trunnion | C85T10 |  | C85T16 |  | C85T25 |  | 1 trunnion |
|  | Clevis | 25A-C85C10 |  | 25A-C85C16 |  | 25A-C85C25 |  | 1 clevis pivot bracket, 1 clevis pin, 2 pin retaining rings |

Replacement Parts: For Standard Type

| Bore size $[\mathrm{mm}]$ | Part no. | Note |
| :---: | :---: | :---: |
| 20 | $25 A-C 85 A-20 P S$ | Every set includes: <br> 1 rod seal <br> 1 flat washer <br> 1 retaining ring |
| 25 | $25 A-C 85 A-25 P S$ |  |

* When replacing the seals, use grease (GR-D-010: ordered separately) on the sliding parts.
* The 25A- series specifications and dimensions are the same as those of the standard model.

* Aside from the standard strokes, intermediate strokes are also available in 1 mm increments and are produced upon receipt of order.

[^38]For details, refer to the Web Catalog.

How to Order


* Aside from the standard strokes, intermediate strokes are also available in 1 mm increments and are produced upon receipt of order.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

How to Order


* The 25A- series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catalog.


Mounting Bracket Part Nos. for the 25A-Series

| Bore size [mm] | Foot*1 | Flange | Single clevis*2 |
| :---: | :---: | :---: | :---: |
| 20 | 25A-C55-L020 | 25A-C55-F020 | 25A-C55-C020 |
| 25 | 25A-C55-L025 | 25A-C55-F025 | 25A-C55-C025 |
| 32 | 25A-C55-L032 | 25A-C55-F032 | - |
| 40 | 25A-C55-L040 | 25A-C55-F040 | - |
| 50 | 25A-C55-L050 | 25A-C55-F050 | - |
| 63 | 25A-C55-L063 | 25A-C55-F063 | - |
| 80 | 25A-C55-L080 | 25A-C55-F080 | - |
| 100 | 25A-C55-L100 | 25A-C55-F100 | - |

[^39]* The 25A- series specifications and dimensions are the same as those of the standard model.


# Shock Absorber Soft Type 

O.D. thread size/Stroke

| Symbol | O.D. thread | Stroke |
| :---: | :---: | :---: |
| $\mathbf{0 6 0 4}$ | 6 mm | 4 mm |


|  | Option |
| :---: | :---: |
| Symbol | Hexagon nut |
| Nil | 2 pcs. |
| $\mathbf{N}$ | - |

25A - RJ 0604 $\square$ 25A-RJ 0806 H


Series compatible with secondary batteries

Shock absorber/Soft typed
O.D. thread size/Stroked

| Symbol | O.D. thread | Stroke |
| :---: | :---: | :---: |
| $\mathbf{0 8 0 6}$ | 8 mm | 6 mm |
| $\mathbf{1 0 0 7}$ | 10 mm | 7 mm |
| $\mathbf{1 4 1 2}$ | 14 mm | 12 mm |
| $\mathbf{2 0 1 5}$ | 20 mm | 15 mm |
| $\mathbf{2 7 2 5}$ | 27 mm | 25 mm |


| Symbol | Hexagon nut | Stopper nut |
| :---: | :---: | :---: |
| $\mathbf{N i l}$ | 2 pcs. | - |
| $\mathbf{J}$ | 3 pcs. | - |
| $\mathbf{N}$ | - | - |
| $\mathbf{S}$ | 2 pcs. | 1 pc. |
| $\mathbf{S J}$ | 3 pcs. | 1 pc. |
| $\mathbf{S N}$ | - | 1 pc. |

- With cap

| Nil | Basic type |
| :---: | :---: |
| $\mathbf{U}$ | With urethane cap |

## Collision speed range

| $\mathbf{H}$ | 0.05 to $2 \mathrm{~m} / \mathrm{s}$ |
| :---: | :---: |
| $\mathbf{L}$ | 0.05 to $1 \mathrm{~m} / \mathrm{s}$ |

* RJ0604: 0.05 to $1.0 \mathrm{~m} / \mathrm{s}$
* RJ2725H: 0.05 to $1.5 \mathrm{~m} / \mathrm{s}$

Hexagon Nut, Stopper Nut (Option) Part Nos. for the 25A- Series

|  |  | Thread size |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | M6 | M8 | M10 | M14 | M20 | M27 |
| Hexagon nut |  | 25A-RJ06J | 25-RB08J | 25-RB10J | 25-RB14J | 25-RB20J | 25-RB27J |
| Stopper nut | Basic type | - | 25-RB08S | 25-RB10S | 25-RB14S | 25-RB20S | 25-RB27S |
|  | With cap |  | 25-RBC08S | 25-RBC10S | 25-RBC14S | 25-RBC20S | 25-RBC27S |

Material: Special steel
Treatment: Electroless nickel plating

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Shock Absorber Short Stroke Type 



Hexagon Nut, Stopper Nut (Option) Part Nos. for the 25A-Series

|  |  | Thread size |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | M8 | M10 | M14 |
| Hexagon nut |  | 25-RB08J | 25-RB10J | 25-RB14J |
| Stopper nut | Basic type | 25-RB08S | 25-RB10S | 25-RB14S |
|  | With cap | 25-RBC08S | 25-RBC10S | 25-RBC14S |

Material: Special steel
Treatment: Electroless nickel plating

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Shock Absorber 25A-RB/RBC Series 



Hexagon Nut, Stopper Nut (Option) Part Nos. for the 25A- Series

|  |  | Thread size |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: |
|  |  | M10 | M14 | M20 | M27 |  |
| Hexagon nut | 25-RB08J | 25-RB10J | 25-RB14J | 25-RB20J | 25-RB27J |  |
|  | Basic type | 25-RB08S | 25-RB10S | 25-RB14S | 25-RB20S | 25-RB27S |
|  | With cap | 25-RBC08S | 25-RBC10S | 25-RBC14S | 25-RBC20S | 25-RBC27S |

[^40]* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Floating Joint 25A-J $\square$ Series 

## 25A-J S 32-10-125 <br>  <br> -Thread nominal size

Series compatible with ${ }^{\circ}$ secondary batteries

Stainless steel typed
Applicable bore size [mm] ©

| Symbol | Applicable <br> bore size $[\mathrm{mm}]$ |
| :---: | :---: |
| 10 | 10 |
| 16 | 10,16 |
| 20 | 20 |
| 32 | 25,32 |
| 40 | 40 |
| 63 | 50,63 |


| Nominal <br> thread size | Applicable cylinder <br> nominal thread size |
| ---: | :---: |
| $\mathbf{4 - 0 7 0}$ | $\mathrm{M} 4 \times 0.7$ |
| $\mathbf{5 - 0 8 0}$ | $\mathrm{M} 5 \times 0.8$ |
| $\mathbf{8 - 1 2 5}$ | $\mathrm{M} 8 \times 1.25$ |
| $\mathbf{1 0 - 1 2 5}$ | $\mathrm{M} 10 \times 1.25$ |
| $\mathbf{1 4 - 1 5 0}$ | $\mathrm{M} 14 \times 1.5$ |
| $\mathbf{1 8 - 1 5 0}$ | $\mathrm{M} 18 \times 1.5$ |


| Symbol | Material |
| :---: | :---: |
| Nil | Fluororubber (FKM) |
| S | Silicone rubber $(\mathrm{Si})$ |

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

How to Order

## Standard type

25A-JA 80-22-150
Series compatible with ${ }^{\circ}$ secondary batteries

Applicable bore size [mm]

| Model | Symbol | Applicable <br> bore size $[\mathrm{mm}]$ |
| :---: | :---: | :---: |
| Standard | $\mathbf{8 0}$ | 80 |
|  | $\mathbf{1 0 0}$ | 100 |

* For ø63 or less, please consider using the stainless steel type 25A-JS series.
- Thread nominal size (Standard)


| Nominal <br> thread size | Applicable cylinder <br> nominal thread size |
| :---: | :---: |
| $\mathbf{2 2 - 1 5 0}$ | M22 $\times 1.5$ |
| $\mathbf{2 6 - 1 5 0}$ | M $26 \times 1.5$ |

* The 25A- series specifications and dimensions are the same as those of the standard model.

How to Order


| Symbol | Applicable <br> bore size $[\mathrm{mm}]$ |
| :---: | :---: |
| 12 | 12 |
| 16 | 16 |
| 20 | 20 |
| 25 | 25 |
| 40 | 32,40 |
| 63 | 50,63 |
| 80 | 80 |
| 100 | 100 |

For details, refer to the Web Catalog.

8-125

Thread nominal size

| Nominal <br> thread size | Applicable cylinder <br> nominal thread size |
| :---: | :---: |
| $\mathbf{3 - 0 5 0}$ | $\mathrm{M} 3 \times 0.5$ |
| $\mathbf{4 - 0 7 0}$ | $\mathrm{M} 4 \times 0.7$ |
| $\mathbf{5 - 0 8 0}$ | $\mathrm{M} 5 \times 0.8$ |
| $\mathbf{6 - 1 0 0}$ | $\mathrm{M} 6 \times 1$ |
| $\mathbf{8 - 1 2 5}$ | $\mathrm{M} 8 \times 1.25$ |
| $\mathbf{1 0 - 1 5 0}$ | $\mathrm{M} 10 \times 1.5$ |
| $\mathbf{1 6 - 2 0 0}$ | $\mathrm{M} 16 \times 2$ |
| $\mathbf{2 0 - 2 5 0}$ | $\mathrm{M} 20 \times 2.5$ |

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Rotary Table: Vane Type 25A-MSUB Series 

Size: 1, 3, 7, 20



Number of auto switches

| $\mathbf{S}$ | $1^{* 1}$ |
| :---: | :---: |
| $\mathbf{N i l}$ | $2^{* 2}$ |

*1 S (1 auto switch) is shipped with a right-hand auto switch.
*2 Nil (2 auto switches) is shipped with a right-hand and a left-hand switch.

| Application | Symbol | Rotating angle |
| :---: | :---: | :---: |
| Single <br> vane | $\mathbf{9 0}$ | $90^{\circ}$ |
|  | $\mathbf{1 8 0}$ | $180^{\circ}$ |
| Double <br> vane | $\mathbf{9 0}$ | $90^{\circ}$ |

Rotation adjustment range
Single vane: Both ends $\pm 5^{\circ}$ each Double vane: Both ends $\pm 2.5^{\circ}$ each

Vane typed

|  | Single vane |
| :---: | :---: |
| D | Double vane |

- Auto switch

| Nil | $\begin{array}{c}\text { Without auto switch } \\ \text { (Built-in magnet) }\end{array}$ |
| :---: | :---: |

Click here for details on applicable auto switch models.

* The 25A- series specifications and dimensions are the same as those of the standard model.
* Zinc is used in part of deep groove ball bearing.

For details, refer to the Web Catalog.

# Rotary Table/Rack \& Pinion Type 25A-MSQ Series <br> Size: 10, 20, 30, 50 

 secondary batteries

| 1 Size |
| :---: |
| 10 |
| 20 |
| 30 |
| 50 |


| 2 |  |
| :---: | :---: |
| Cushion type |  |
| A | Cushion pad |
| D | Bumper |
| R | Internal shock absorber |

3 Auto switch

| Nil | Without auto switch (Built-in magnet) |
| :--- | :--- |

* Click here for details on applicable auto switch models.

(4) | Number of |
| :---: |
| auto switches |

| Nil | 2 |
| :---: | :---: |
| $\mathbf{s}$ | 1 |
| $\mathbf{n}$ | n |

5 Port type

| End port type |  | Size |
| :---: | :---: | :---: |
| Nil | M5 | 10, 20 |
| Nil | Rc1/8 | 30,50 |
| -XF | G1/8 |  |
| -XN | NPT1/8 |  |
| -XT | NPTF1/8 |  |

* Zinc is used in part of deep groove ball bearing and seal washer.

6 Made to order

| Nil | None |
| :---: | :---: |
| A | With interchangeable table and plate |
| $\mathbf{B}$ | With interchangeable table |
| $\mathbf{C}$ | With interchangeable plate |

* Some parts have dimensions and shapes that are different from those of the standard model. Refer to page 176 for details. Other specifications are the same as those of the standard model.

For details, refer to the Web Catalog.
 secondary batteries

| 1 Size |
| :---: |
| 10 |
| 20 |
| 30 |
| 50 |



## (3) Auto switch

| Nil | Without auto switch (Built-in magnet) |
| :--- | :--- |

* Click here for details on applicable auto switch models.

(4) | Number of |
| :--- |
| auto switches |

| Nil | 2 |
| :---: | :---: |
| $\mathbf{s}$ | 1 |
| $\mathbf{n}$ | n |


| 5 Port type |  |  |
| :---: | :---: | :---: |
|  | ort type | Size |
| Nil | M5 | 10, 20 |
| Nil | Rc1/8 | 30, 50 |
| -XF | G1/8 |  |
| -XN | NPT1/8 |  |
| -XT | NPTF1/8 |  |

Made to order

| Nil | None |
| :---: | :---: |
| B | With interchangeable table |

* Zinc is used in part of deep groove ball bearing and seal washer.

Internal Shock Absorber Part Nos. for the 25A- Series

* Some parts have dimensions and shapes that are different from those of the standard model. Refer to page 176 for details. Other specifications are the same as those of the standard model.

For details, refer to the Web Catalog.

| Size | Part no. |
| :---: | :---: |
| $\mathbf{1 0}$ | 25A-RBA0805-X692 |
| $\mathbf{2 0}$ | $25 A-$ RBA1006-X692 |
| $\mathbf{3 0}$ |  |
| $\mathbf{5 0}$ | 25A-RBA1411-X692 |

* The part number is the same for the 25A-MSQ-X251.


|  |  |  |  |  |  |
| :---: | ---: | ---: | :---: | :---: | :---: |
| Size | AU | AY | FU | HU | SU $]$ |
| $\mathbf{1 0}$ | 6.5 | 6 | 32 | 18 | 24 |
| $\mathbf{2 0}$ | 7.5 | 8 | 36 | 26 | 34 |
| $\mathbf{3 0}$ | 7.5 | 8 | 34 | 24 | 32 |
| $\mathbf{5 0}$ | 10 | 10 | 54 | 34 | 45.5 |

* Dimensions other than those shown above are identical to the standard products.

For details, refer to the Web Catalog.

With vacuum port
25A-MSQ $\square$ A-X251


## Bumper

25A-MSQ $\square D-X 251$


Internal shock absorber 25A-MSQ $\square$ R-X251


## Bumper

25A-MSQ $\square$ D


Internal shock absorber 25A-MSQ $\square R$


| Size | AU | AY | DG | FU | H | HC | HU | SB | SU | UU |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 6.5 | 6 | 35h9 | 32 | 14.2 | 5 | 18 | 47.2 | 24 | 48.7 |
| 20 | 7.5 | 8 | 42h9 | 36 | 14 | 6 | 26 | 59.9 | 34 | 51 |
| 30 | 7.5 | 8 | 48h9 | 34 | 14 | 6 | 24 | 65.3 | 32 | 58 |
| 50 | 10 | 10 | 54h9 | 54 | 14 | 7 | 34 | 77.7 | 45.5 | 64 |

* Dimensions other than those shown above are identical to the standard products.
* The product with the vacuum port has no hollow shaft at its rotation center.

For details, refer to the Web Catalog.

Please contact SMC for detailed dimensions, specifications, and delivery times.

## 1 With Interchangeable Table and Plate

## Applicable Rotary Table

| Model | Made to order |  |  | Note |
| :--- | :---: | :---: | :---: | :---: |
|  | With interchangeable <br> table and plate | With interchangeable <br> table | With interchangeable <br> plate |  |
| 25A-MSQ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |  |
| 25A-MSQD-B-X251 | - | $\bigcirc$ | - |  |

## How to Order

## Standard model no.

Made to order

| A | With interchangeable table and plate |
| :---: | :--- |
| B | With | B With interchangeable table With interchangeable plate

The interchangeable table and plate can be ordered separately. For details, refer to the tables below.
The interchangeable table and plate are assembled before shipment.
Part Nos. of Interchangeable Parts
Interchangeable A Unit (With Interchangeable Table and Plate)

| Size | Part no. | Contents |
| :---: | :---: | :---: |
|  |  | Description (Qty.) |
| $\mathbf{1 0}$ | P891010-53 | - Interchangeable table (1) <br> - Parallel pin (1) <br> - Hexagon socket head cap screw (4) <br> - Interchangeable plate (1) <br> - Cross recessed head machine <br> screw for precision instruments (2) |
| $\mathbf{3 0}$ | P891020-53 | P891030-53 |

Interchangeable B Unit (With Interchangeable Table)

| Size | Part no. | Contents |
| :---: | :---: | :---: |
|  |  | Description (Qty.) |
| $\mathbf{1 0}$ | P891010-54 |  |
| $\mathbf{2 0}$ | P891020-54 | - - Parallel pin (1) |
| $\mathbf{3 0}$ | P891030-54 | • Hexagon socket head cap screw (4) |
| $\mathbf{5 0}$ | P891040-54 |  |

Interchangeable C Unit (With Interchangeable Plate)

| Size | Part no. | Contents |
| :---: | :---: | :---: |
|  |  | Description (Qty.) |
| $\mathbf{1 0}$ | . Interchangeable plate (1) |  |
| $\mathbf{2 0}$ | P891020-55 | Cross recessed head machine |
| $\mathbf{3 0}$ | P891030-55 | screw for precision instruments (2) |
| $\mathbf{5 0}$ | P891040-55 |  |

* Mounting diagram of the interchangeable table

Dimensions Dimensions other than those shown below are the same as those of the basic type. Refer to the Web Catalog for details.

With vacuum port/With interchangeable table 25A-MSQ $\square A-B-X 251$


| 1 mm$)$ |  |  |  |  |  |  |  |  |  |  |
| :---: | ---: | ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Size | AU | AY | DG | FU | H | HC | HU | SB | SU | UU |
| $\mathbf{1 0}$ | 6.5 | 6 | 35 h 9 | 32 | 21 | 5 | 18 | 47.2 | 24 | 55.7 |
| $\mathbf{2 0}$ | 7.5 | 8 | 42 h 9 | 36 | 23 | 6 | 26 | 59.9 | 34 | 60 |
| $\mathbf{3 0}$ | 7.5 | 8 | 48 h 9 | 34 | 23 | 6 | 24 | 65.3 | 32 | 67 |
| $\mathbf{5 0}$ | 10 | 10 | 54 h 9 | 54 | 26 | 7 | 34 | 77.7 | 45.5 | 75.5 |

## Bumper

25A-MSQ $\square D-B-X 251$


Internal shock absorber 25A-MSQ $\square R-B-X 251$


# Rotary Table/Rack \& Pinion Type 25A-MSQ Series <br> Size: 10, 20, 30, 50, 70, 100, 200 


*1 Size 200 is produced upon receipt of order

* Zinc is used in part of deep groove ball bearing and seal washer.
* Side port cannot be used.
* Some parts have dimensions and shapes that are different from those of the standard model. Refer to page 179 for details. Other specifications are the same as those of the standard model.

For details, refer to the Web Catalog.

## With Vacuum Port



For details, refer to the Web Catalog.

## 25A-MSQ Series

## Dimensions

25A-MSQB $\square A$


|  |  | $[\mathrm{mm}]$ |
| :---: | :---: | :--- |
| Size | AY | SU |
| $\mathbf{1 0}$ | 6 | 23.7 |
| $\mathbf{2 0}$ | 8 | 33 |
| $\mathbf{3 0}$ | 8 | 33 |
| $\mathbf{5 0}$ | 10 | 42.9 |
| $\mathbf{7 0}$ | 16 | 44.2 |
| $\mathbf{1 0 0}$ | 16 | 44.3 |
| $\mathbf{2 0 0}$ | 21 | 52.2 |

* Dimensions other than those shown above are identical to the standard products.

For details, refer to the Web Catalog.

## 25A-MSQB $\square A X-X 251$



|  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Size | AY | DG | FD | H | HA | HB | SU | UU |
| $\mathbf{1 0}$ | 6 | 35h9 | 11.5 | 20 | 5.5 | 5 | 23.7 | 59 |
| $\mathbf{2 0}$ | 8 | 40 h 9 | 11.5 | 22 | 5.5 | 6 | 33 | 65 |
| $\mathbf{3 0}$ | 8 | 48 h 9 | 11.5 | 22 | 5.5 | 6 | 33 | 68 |
| $\mathbf{5 0}$ | 10 | 54 h 9 | 11.5 | 24 | 5.5 | 7 | 42.9 | 77 |
| $\mathbf{7 0}$ | 16 | 50 h 9 | 12 | 25 | 6 | 7 | 44.2 | 85 |
| $\mathbf{1 0 0}$ | 16 | 52 h 9 | 12 | 27 | 6 | 7 | 44.3 | 93 |
| $\mathbf{2 0 0}$ | 21 | 64 h 9 | 15 | 32 | 7.5 | 8 | 52.2 | 114 |

* The product with the vacuum port has no hollow shaft at its rotation center.
* Dimensions other than those shown above are identical to the standard products.

For details, refer to the Web Catalog.

# 3-Position Rotary Table 25A-MSZ Series 

Size: 10, 20, 30, 50


For details, refer to the Web Catalog.

Compact Type Parallel Style Air Gripper

## 25A-JMHZ2 Series

Compact Type Parallel Style Air Gripper/With Positioning Pins on the Lateral Mounting Surface 25A-JMHZ2-X6900(A, B) (Made to Order) Compact Type Parallel Style Air Gripper/Lateral Auto Switch Mounting 25A-JMHZ2-X7460 (Made to Order) ø8, ø12, ø16, ø20

## How to Order

## Bore Size



* The 25A- series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catalog.


## Bore Size



| 1 Number of fingers |  | (2) Bore size |  |
| :---: | :---: | :---: | :---: |
|  |  | 8 | 8 mm |
| 2 | 2 | 12 | 12 mm |
|  |  | 16 | 16 mm |
|  |  | 20 | 20 mm |

\author{

| 3 | Action |
| :---: | :---: |
| D | Double acting |

}

4

| Finger option |  |
| :---: | :---: |
| Nil | Standard |
| $\mathbf{1}$ | Side tapped mounting |
| $\mathbf{2}$ | $\begin{array}{c}\text { Through-holes in opening/ } \\ \text { closing direction }\end{array}$ |



* The 25A- series have the same specifications and dimensions as those of the JMHZ2-X6900(A, B) (made-to-order individual specifications). For details, refer to the Web Catalog.


## Bore Size



* The 25A- series have the same specifications and dimensions as those of the JMHZ2-X7460 (made-to-order individual specifications). For details, refer to the Web Catalog.


# Parallel Type Air Gripper Standard Type 25A-MHZ2 Series $\varnothing 10, \varnothing 16, \varnothing 20, \varnothing 25, \varnothing 32, \varnothing 40$ 

Bore size


Series compatible with secondary batteries

Number of fingers

| 2 | 2 fingers |
| :--- | :--- |

Bore sized

| $\mathbf{1 0}$ | 10 mm |
| :---: | :---: |
| $\mathbf{1 6}$ | 16 mm |
| $\mathbf{2 0}$ | 20 mm |
| $\mathbf{2 5}$ | 25 mm |

Action ${ }^{\circ}$

| D | Double acting |
| :--- | :--- |



## Bore size



[^41] are the same as those of the standard model.

# Parallel Type Air Gripper Long Stroke Type 25A-MHZL2 Series <br> $\varnothing 10, \varnothing 16, \varnothing 20, \varnothing 25$ 



* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.


* Sizes $\varnothing 32$ and $\varnothing 40$ of the 25A- series have the same specifications and dimensions as those of the MHZJ2-X6100 (made-to-order individual specifications).

For details, refer to the Web Catalog.
Long Stroke Type/ With Dust Cover (Made to Order)


| Nil | Chloroprene rubber (CR) |
| :---: | :---: |
| F | Fluororubber (FKM) |
| S | Silicone rubber (Si) |

* The 25A- specifications and dimensions are the same as those of the MHZL2-X6110 (made to order individual specifications).


# Low Profile Air Gripper 25A-MHF2 Series ø8, ø12, ø16, ø20 

## 25A-MHF 2-12 D <br> Number of fingers <br> 22 fingers <br> - Series compatible with secondary batteries

| Bore size $[\mathrm{mm}]$ |  |
| :---: | :---: |
| $\mathbf{8}$ | 8 |
| $\mathbf{1 2}$ | 12 |
| $\mathbf{1 6}$ | 16 |
| $\mathbf{2 0}$ | 20 |

Action

| D | Double acting |
| :---: | :--- |
|  |  |
| Stroke |  |
| Nil | Short stroke |
| $\mathbf{1}$ | Medium stroke |
| $\mathbf{2}$ | Long stroke |



- Number of auto switches

| Nil | 2 |
| :---: | :---: |
| $\mathbf{S}$ | 1 |
| $\mathbf{n}$ | n |

-Auto switch
Nil $\quad$ Without auto switch (Built-in magnet)

* Click here for details on applicable auto switch models.

Body option
Nil: Axial piping type
R: Side piping type


* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## Parallel Type Air Gripper: Wide Type 25A-MHL2 Series

 ø10, ø16, ø20, ø25, ø32, ø40 same as those of the standard model.

For details, refer to the Web Catalog.


* The 25A- series specifications and dimensions are the same as those of the standard model.


## Parallel Type Air Gripper 25A-MHS $\square$ Series

 $\varnothing 16, \varnothing 20, \varnothing 25, \varnothing 32$How to Order

Series compatible with secondary batteries

## 25

Number of fingers

| 3 | 3 fingers |
| :--- | :--- |
| 4 | 4 fingers |

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Parallel Type Air Gripper 3-Finger Type with Dust Cover 25A-MHSJ3 Series ø16, ø20, ø25, ø32 



* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# $180^{\circ}$ Angular Type Air Gripper Cam Type 25A-MHY2 Series <br> $\varnothing 10, \varnothing 16, \varnothing 20, \varnothing 25$ <br> RoHS 

How to Order


* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## $180^{\circ}$ Angular Type Air Gripper Rack \& Pinion Type 25A-MHW2 Series $\varnothing 20, \varnothing 25, \varnothing 32, \varnothing 40, \varnothing 50$

How to Order


* Change of material and surface treatment are not available for the bearing or the parallel key.
* As metal-to-metal collision occurs when the fingers are fully closed, dust particles may be generated.

[^42]For details, refer to the Web Catalog.

# Ejector System Vacuum Unit 25A $25 A-Z K 2 \square A$ Series 

## Single Unit Ejector + With Valve + Without Energy Saving Function

How to Order

## 


*1 With exhaust port when (2) is 12 or 15
Rated voltage (Supply valve/Release valve)

| Symbol | Voltage |
| :---: | :---: |
| $\mathbf{5}$ | 24 VDC |
| $\mathbf{6}$ | 12 VDC |


| Symbol | Type | Pressure range [kPa] | Specifications |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | NPN | PNP | With unit selection |
|  |  |  | 2 outputs |  | function*3 |
| A |  | 0 to -101 | $\bullet$ | - | $\bullet$ |
| B |  |  | $\bullet$ | - | None (SI unit only) |
| C |  |  | - | $\bullet$ | $\bullet$ |
| D |  |  | - | $\bullet$ | None (SI unit only) |
| E |  | -100 to 100 | $\bullet$ | - | $\bullet$ |
| F |  |  | $\bullet$ | - | None (SI unit only) |
| H |  |  | - | $\bullet$ | $\bullet$ |
| J |  |  | - | - | None (SI unit only) |
| P | Pressure sensor | 0 to -101 | Analog output 1 to 5 V |  |  |
| T |  | -100 to 100 |  |  |  |
| N | Without p | essure switch | r vacu | m/pres | sure sensor |

*3 The unit selection function is not available in Japan due to the New Measurement Law. The unit for the type without the unit selection function is fixed as kPa .

| Vacuum (V) port |  |
| :---: | :---: |
| Symbol | Vacuum (V) port |
| 06 | $\varnothing 6$ |
| 08 | $\varnothing 8$ |


| 2 | Nominal nozzle size |
| :---: | :---: |
| Symbol | Nominal nozzle size |
| $\mathbf{0 7}$ | $\varnothing 0.7$ |
| $\mathbf{1 0}$ | $\varnothing 1.0$ |
| $\mathbf{1 2}$ | $\varnothing 1.2$ |
| $\mathbf{1 5}$ | $\varnothing 1.5$ |

* The standard supply pressure of each nozzle diameter is the same as that of the corresponding standard product. For details, refer to the Web Catalog.
(3) Combination of supply valve and release valve

| Symbol | Supply valve |  | Release valve |
| :---: | :---: | :---: | :---: |
|  | N.C. | Self-holding | N.C. |
| $\mathbf{K}$ | $\bullet$ | - | $\bullet$ |
| $\mathbf{J}$ | $\bullet$ | - | - |
| $\mathbf{R}$ | - | $\bullet^{* 2}$ | $\bullet$ |

*2 Supply valve maintains vacuum by energization ( 20 ms or more). Stopping the vacuum turns on the release valve.

6 Connector (Supply valve/Release valve/Pressure switch for vacuum)

| Symbol | For supply valve/ release valve: 300 mm (Connector assembly) ${ }^{* 4}$ | For pressure switch for vacuum: 2 m (Lead wire with connector) | Pressure sensor assembly: 3 m (With lead wire) | Note |
| :---: | :---: | :---: | :---: | :---: |
| L | $\bigcirc$ | $\bigcirc$ |  | Cannot be selected when $\mathbf{5}$ is N |
| L1 | None |  |  |  |
| L2 | $\bigcirc$ |  |  | Cannot be selected when 5 is P or T |
| L3 | None |  |  |  |

*4 For the connector length other than 300 mm , select L1 or L3, and order the connector assembly on page 194 separately.

8 Option*5 (For details on the Function/Application, refer to page 195.)

*5 When more than one option is selected, list the option symbols in alphabetical order. (Example-BJ)
*6 Use a One-touch fitting or barb fitting for piping. (O.D.: Within ø6.2)

* The 25A- series specifications and dimensions are the same as those of the standard model.


# Ejector System Vacuum Unit  $25 A-Z K 2 \square A$ Series 

## Single Unit Ejector + With Valve + With Energy Saving Function


*2 The unit selection function is not available in Japan due to the New Measurement Law. The unit for the type without the unit selection function is fixed as kPa .


[^43]The manifold type is available as a special order.

* The 25A- series specifications and dimensions are the same as those of the standard model.


# Ejector System Vacuum Unit 25A ZK2 ${ }^{\text {a }}$ $25 A-Z K 2 \square A$ Series ( 

#  



| 2 Nominal nozzle size |  |
| :---: | :---: |
| Symbol | Nominal nozzle size |
| $\mathbf{0 7}$ | $\varnothing 0.7$ |
| $\mathbf{1 0}$ | $\varnothing 1.0$ |
| $\mathbf{1 2}$ | $\varnothing 1.2$ |
| $\mathbf{1 5}$ | $\varnothing 1.5$ |

* The standard supply pressure of each nozzle diameter is the same as that of the corresponding standard product. For details, refer to the Web Catalog.

| Symbol | For pressure <br> switch for vacuum: <br> 2 m (Lead wire <br> with connector) | Pressure <br> sensor <br> assembly: 3 m <br> (With lead wire) | Note |
| :---: | :---: | :---: | :--- |
| $\mathbf{Y}$ | None | Cannot be selected <br> when 3 is N |  |
| $\mathbf{Y 1}$ | None | Cannot be <br> selected when <br> 3 is P, T, or N |  |
| $\mathbf{N}$ | When "N" is |  |  |
| selected for 3 |  |  |  |

Pressure switch for vacuum/Pressure sensor

| Symbol | Type | Pressure range [ kPa ] | Specifications |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | NPN | PNP | With unit selection function*2 |
|  |  |  | 2 outputs |  |  |
| A |  | 0 to -101 | $\bigcirc$ | - | $\bigcirc$ |
| B |  |  | $\bigcirc$ | - | None (SI unit only) |
| C |  |  | - | $\bigcirc$ | $\bigcirc$ |
| D |  |  | - | $\bigcirc$ | None (SI unit only) |
| E |  | -100 to 100 | $\bigcirc$ | - | $\bigcirc$ |
| F |  |  | $\bigcirc$ | - | None (SI unit only) |
| H |  |  | - | $\bigcirc$ | $\bigcirc$ |
| J |  |  | - | $\bigcirc$ | None (SI unit only) |
| P | Pressure sensor | 0 to -101 | Analog output 1 to 5 V |  |  |
| T |  | -100 to 100 |  |  |  |  |
| N | Without pressure switch for vacuum/pressure sensor |  |  |  |  |

*2 The unit selection function is not available in Japan due to the New Measurement Law. The unit for the type without the unit selection function is fixed as kPa .
(5) Vacuum (V) port

| 6 | Option*3 (For details on the Function/Application, refer to page 195.) |  |  |
| :--- | :--- | :---: | :---: |
| Symbol | Type |  | Note |
| Nil | Without option | Mounting bracket for single unit <br> (nuts and bolts are included) | Wracket |
| W | With exhaust interference <br> prevention valve | Install the release <br> valve or vacuum <br> breaker in the middle <br> of the vacuum piping. |  |

[^44][^45]
## Replacement Parts for Single Unit / How to Order




Select the 25A-ZK2VAAK $\square$ LOA-A for a switch with energy saving function.


Sound absorbing material (10 pcs. per set)


Vacuum port adapter assembly (Purchasing order is available in units of 1 piece.)


Filter element (10 pcs. per set)


Body gasket*1 (10 pcs. per set)

ZK2 - BG5- | 1 |
| :---: |
| dApplicable type |

| 1 | One check valve type <br>  |
| :---: | :---: |
| 2 | Two check valve type <br> (Vacuum switch with energy saving function and exhaust inereference prevention vave) |

[^46]
## Filter case**



| Symbol | Port for the pressure switch or sensor | Filter case <br> color |
| :---: | :---: | :---: |
| $\mathbf{P}$ | With port (type with pressure switch or sensor) | Smoke |
| $\mathbf{T}$ | Without port (type without pressure switch or sensor) | Clear |

*1 Vacuum port adapter assembly is not included.
Pressure switch for vacuum assembly (With 2 mounting screws)

1 Rated pressure range and function

| $\mathbf{E}$ | 0 to -101 kPa | Pressure switch for vacuum | Open collector 2 outputs |
| :---: | :---: | :---: | :---: |
| F | -100 to 100 kPa |  |  |
| V | -100 to 100 kPa | Pressure swith hor vacuum with energy saving function | Open collector 1 output |



Lead wire with connector
(When individual lead wire is necessary, order with the part number below.)

- Lead wire with connector for pressure switch for vacuum

ZS - 39-5G

- Lead wire with connector for pressure switch for vacuum with energy saving function

$$
\text { ZK2 - LW } \underset{\substack{\text { A Output } \\ \text { A } \\ \hline}}{ }
$$

$$
\begin{array}{|c|c|}
\hline \text { A } & \text { NPN open collector } \\
\hline \text { B } & \text { PNP open collector } \\
\hline
\end{array}
$$

Pressure sensor assembly (With 2 mounting screws)


High-noise reduction silencer case assembly
ZK2-SC3-4-A
${ }^{\text {Applicable nozzle }}$ size
$48 \mid$ For nozzle size 07, 10

| 6 | For nozzle size 12, 15 |
| :---: | :---: |

Sound absorbing material for high-noise reduction silencer (5 pcs. per set)
ZK2-SE4-6-A
Release lever (10 pcs. per set)
ZK2 - RL1 - A
Lock nut (10 pcs. per set)
25A-ZK2 - LN1 - A

Optional Specifications/Functions/Applications


# Ejector System Compact Vacuum Unit <br> With Energy Saving Function <br> UK 

$25 A-Z Q \square A$ Series
RoHS

## Single Unit Part Number

How to Order


## Electrical entry

LO L plug connector (Without connector) With light/surge voltage suppressor

| 6 Manual override |  |
| :---: | :---: |
| Nil | Non-locking push type |
| B | Locking slotted type |

8 Unit

| Nil $^{*} 2$ | With unit switching function |
| :---: | :---: |
| $\mathbf{M}$ | SI unit only (kPa) |

*2 Under the New Measurement Act, switches with the unit switching function are not permitted for use in Japan (implemented October 1999).


Lead wire

| Nil | Without lead wire with connector |
| :---: | :---: |
| W | Lead wire for switch with energy saving <br> function (Length: 2 m ) (Included) |

Vacuum pressure switch (With suction filter*1)

| Symbol | Pressure range [kPa] | Output |
| :---: | :---: | :---: |
| VA | -100 to 100 | NPN 1 output + Energy saving function |
|  |  |  |

VB
*1 The filter used in this product is of a simple type, and will become clogged quickly in environments with high quantities of dust or particulates. Please consider using in combination with an air suction filter of the ZFC series, etc.

10 Fitting (V port)

| Symbol | Applicable tubing O.D. |
| :---: | :---: |
| $\mathbf{0}$ | Without fitting (M5 $\times 0.8$ ) |

## (11) Fitting (P port)

| Symbol | Applicable tubing O.D. | Specification |
| :---: | :---: | :---: |
| $\mathbf{N i l}$ | Without port | Manifold |
| $\mathbf{0}$ | Without fitting $(\mathrm{M} 5 \times 0.8)$ | Single unit |

12 Option

|  | Bracket for single unit |  |
| :---: | :---: | :---: |
|  | Single unit | Manifold |
| $\mathbf{N i l}$ | With | Without |
| $\mathbf{N}$ | Without | Not available |

* The 25A-series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# $25 A-Z Q \square A$ series 

How to Order



| Nil | Non-locking push type |
| :---: | :---: |
|  | Latching: <br> Push-locking slotted type |
| $\mathbf{B}^{* 2}$ | Locking slotted type |

*2 When "Q1" is selected in (3, the locking slotted type is only available in the release valve.
This option cannot be chosen when "Q2" is selected in (3).

| Symbol | Pressure range [kPa] | Output |
| :---: | :---: | :---: |
| EA | 0 to -100 | NPN 2 outputs |
| EB |  | PNP 2 outputs |
| EC |  | NPN 1 output + Analog voltage |
| EE |  | PNP 1 output + Analog voltage |
| FA | -100 to 100 | NPN 2 outputs |
| FB |  | PNP 2 outputs |
| FC |  | NPN 1 output + Analog voltage |
| FE |  | PNP 1 output + Analog voltage |
| F*4 | Suction filter only |  |

*3 The filter used in this product is of a simple type, and will become clogged quickly in environments with high quantities of dust or particulates. Please consider using in combination with an air suction filter of the ZFC series, etc.
*4 It is not necessary to select the items for 8 and $\boldsymbol{9}$.
8 Unit

| $\mathbf{\mathbf { N i l } ^ { * 5 }}$ | With unit switching function |
| :---: | :---: |
| $\mathbf{M}$ | SI unit only (kPa) |
| $\mathbf{P} * 5$ | With unit switching function <br> (Initial value: psi) |

*5 Under the New Measurement Act, switches with the unit switching function are not permitted for use in Japan (implemented October 1999).

## Lead wire

| Nil | Without lead wire with <br> connector |
| :---: | :---: |
| $\mathbf{G}$ | Lead wire with connector <br> (Length: 2 m) (Included) |

## Check valve*6

| $\mathbf{N i l}$ | None |
| :---: | :---: |
| $\mathbf{K}^{* 7}$ | With check valve |

*6 The check valve has a function to prevent the exhaust air from the exhaust unit overflowing to the vacuum port side when a manifold is used, but it cannot prevent overflow of the exhaust air completely. During usage, please inspect thoroughly with actual machine.
Also, in order to completely prevent the overflow of exhaust air, leave plenty of space between the check valve unit and adjacent ejector to avoid interference from the ejector's exhaust unit.
*7 Cannot be selected when 2 is "1U"
In addition, for the type with a check valve, the air in the adsorption part is not released to the atmosphere when vacuum is stopped. If " J 1 ," " J 2 ," or "Q2" is selected for (3, be sure to also install a circuit for vacuum release.

## $\triangle$ Warning

[^47]11 Fitting (V port)

| Symbol | Applicable tubing O.D. |
| :---: | :---: |
| $\mathbf{0}$ | Without filting (M5 x 0.8) |

12 Fitting (P port)

| Symbol | Applicable tubing O.D. | Specification |
| :---: | :---: | :---: |
| Nil | Without port | Manifold |
| $\mathbf{0}$ | Without fitting (M5 $\times 0.8$ ) | Single unit |

## 13 Option

For Single Unit (2: 1U)

| Symbol | Bracket <br> assembly | Converter assembly <br> for solenoid valve*8 |
| :---: | :---: | :---: |
| Nil | $O$ | - |
| $\mathbf{N}$ | - | - |
| $\mathbf{C}$ | - | $O$ |
| $\mathbf{D}$ | $O$ | 0 |

For Manifold (2: 3M)

| Symbol | Low release pressure <br> specification*9 | Converter assembly <br> for solenoid valve*8 |
| :---: | :---: | :---: |
| $\mathbf{N i l}$ | - | - |
| $\mathbf{S}$ | $\bigcirc$ | - |
| $\mathbf{C}$ | - | $\bigcirc$ |
| $\mathbf{E}$ | $\bigcirc$ | $\bigcirc$ |

*8 A converter assembly for attaching the VQ100 lead wire assembly with a connector to the ZQ-A is included. Refer to the "Converter assembly for solenoid valve" in the Web Catalog "Q2" cannot be selected in (3) Select "LO" in 5 .
*9 Select "C" for (4) for the manifold part number on page 180-3. "J1", "J2", or "Q2" cannot be selected in (3) For a release pressure supply pressure of 0.3 MPa or lower, select " S " or "E."

# Ejector System Compact Vacuum Unit $25 A-Z Q \square A$ Series 

How to Order


| Stations ${ }^{* 1}$ |
| :--- |
| 01 1 station <br> 02 2 stations <br> $\vdots$ $\vdots$ <br> 08 8 stations |

*1 Number of stations varies according to nominal nozzle size during simultaneous operation. (Table 1)
Table 1. Max. Number of Stations that Can Operate Simultaneously*2

| Nominal nozzle <br> size | Max. number of stations that <br> can operate simultaneously |
| :---: | :---: |
| $\mathbf{0 . 5}$ | 8 stations |
| $\mathbf{0 . 7}$ | 6 stations |
| $\mathbf{1 . 0}$ | 4 stations |

*2 For any of the nominal nozzle sizes, the max. number of stations that can be mounted is 8 . However, please ensure that the max. number of stations that are operated simultaneously comply with the values above.
Air pressure supply ( P ) port location

| B | Both sides |
| :--- | :--- |


| 4 | Release pressure supply (PD) port |
| :---: | :---: |
| B | None (Release pressure: Commonly <br> supplied from the P port) |
| C*3 | Provided (Release pressure: Supplied <br> from the PD port) |

*3 For a release pressure supply pressure of 0.3 MPa or lower (for an individual unit without the energy-saving function), select " $S$ " or " $E$ " for (13 for the single unit part number on page 198.
3 Exhaust

| $\mathbf{S}$ | Silencer exhaust (Both sides) |
| :---: | :---: |
| $\mathbf{P}$ | Port exhaust (Both sides) |

> 5 Shipping configuration | Nil | Assembled as a vacuum unit |
| :---: | :---: |

4 A set of end blocks and the clamp rod assembly is included in this manifold unit. (Used for the maintenance of the end block)

## 25A-ZZQ104A-BSB

$\qquad$ 1 pc.

* 25A-ZQ053MA-K15L-EAG-0 $\cdots 2$ pcs. $\rightarrow$ Stations 1 and 2
* 25A-ZQ103MA-K15L-F-0 $\cdots \cdots .2$ pcs. $\rightarrow$ Stations 3 and 4
* When the manifold is viewed from the vacuum $(\mathrm{V})$ port, the first station starts from the left.
25A-ZQ053MA-K15L-EAG-0 (2 pcs.) and 25A-ZQ103MA-K15L-F-0 (2 pcs.) are arranged from the first station.
* The 25A-series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## Manifold Order Example

## Caution when ordering manifold

## 

I The asterisk (*) denotes the symbol for the assembly.


I Prefix it to the single unit part number.
I If "*" is not entered, the manifold and single unit will be shipped without being assembled.
I When the manifold and the units are not assembled, please assemble them by referring to
I "How to increase/decrease manifold stations" in the Web Catalog.
I There is nothing else to arrange additionally.

# Vacuum Pump System Compact Vacuum Unit <br> $25 A-Z Q \square A$ Series 

## How to Order


(1) Body type

| U | For Single unit |
| :---: | :---: |
| M | For Maniold |


| 2 Solenoid valve combination | (3) Solenoid valve rated voltage |  |
| :---: | :---: | :---: |
| K1 Supply valve (N.C.), Release valve (N.C.) | 5 | 24 VDC |
| K2 Supply valve (N.O.), Release valve (N.C.) | (4) Electrical entry |  |
| J1*1 Supply valve (N.C.) |  |  |
| J2*1 $\quad$ Supply valve (N.O.) |  |  |
| Q1*2 ${ }_{\text {Q }}$ Supply valve (Latching), Release valve (N.C.) | L | L plug connector (Lead wire length: 0.3 m ) With light/surge voltage suppressor |
| Q2*1*2 Supply valve (Latching) |  |  |
| *1 The air in the adsorption section of this product is no released to the atmosphere at the vacuum suspensio | LO | L plug connector (Without connector) With light/surge voltage suppressor | released to the atmosphere at the vacuum suspension state. Devise the circuit for the vacuum release additionally.

*2 Latching (+ common)

## Manual override

| Nil | Non-locking push type |
| :---: | :---: |
|  | Latching: Push-locking slotted type |
| $\mathbf{B} * 3$ | Locking slotted type |

*3 When "Q1" is selected in (2), the locking slotted type is only available in the release valve.
This option cannot be chosen when "Q2" is selected in 2.

| 7 Unit |  |  |
| :---: | :---: | :---: |
| Nil*6 | With unit switching function |  |
| M | SI unit only (kPa) |  |
| P*6 | With unit switching function (Initial value: psi ) |  |
| *6 Under the New Measurement Act, switches with the unit switching function are not permitted for use in Japan (implemented October 1999). |  |  |
| 10 Fitting (PS/PV port) |  |  |
| Symbol | Applicable tubing O.D. | Specification |
| Nil | Without port | Manifold |
| 0 | Without fitting (M5 x 0.8) | Single unit |

## 6 Vacuum pressure switch (With suction filter*4)

| Symbol | Pressure range [kPa] | Output |
| :---: | :---: | :---: |
| EA | 0 to -100 | NPN 2 outputs |
| EB |  | PNP 2 outputs |
| EC |  | NPN 1 output + Analog voltage |
| EE |  | PNP 1 output + Analog voltage |
| FA | -100 to 100 | NPN 2 outputs |
| FB |  | PNP 2 outputs |
| FC |  | NPN 1 output + Analog voltage |
| FE |  | PNP 1 output + Analog voltage |
| F*5 | Suction filter only |  |

*4 The filter used in this product is of a simple type, and will become clogged quickly in environments with high quantities of dust or particulates. Please consider using in combination with an air suction filter of the ZFC series, etc.
*5 It is not necessary to select the items for $\mathbf{7}$ and 8 .

## 8 Lead wire

| Nil | Without lead wire with connector |
| :---: | :---: |
| G | Lead wire with connector (Length: 2 m ) (Included) |

9 Fitting (V port)

| Symbol | Applicable tubing O.D. |
| :---: | :---: |
| $\mathbf{0}$ | Without fitting (M5 $\times 0.8$ ) |

(11) Option

For Single Unit ( $\mathbf{( 1 ) : ~ U )}$

| Symbol | Bracket <br> assembly | Converter assembly <br> for solenoid valv**7 |
| :---: | :---: | :---: |
| Nil | $O$ | - |
| N | - | - |
| C | - | 0 |
| D | O | $O$ |

For Manifold (1): M)

| Symbol | Low release pressure <br> specification*8 | Converter assembly <br> for solenoid valve* |
| :---: | :---: | :---: |
| $\mathbf{N i l}$ | - | - |
| $\mathbf{S}$ | $\bigcirc$ | - |
| $\mathbf{C}$ | - | $\bigcirc$ |
| $\mathbf{E}$ | $\bigcirc$ | $\bigcirc$ |

*7 A converter assembly for attaching the VQ100 lead wire assembly with a connector to the ZQ-A is included. Refer to the "Converter Assembly for Solenoid Valve" in the Web Catalog. "Q2" cannot be selected in (2. Select "LO" in 4.
*8 Select "C" for 3 for the manifold part number on page 201. " J 1 ", "J2", or "Q2" cannot be selected in 2. For a release pressure supply pressure of 0.3 MPa or lower, select " S " or "E."

* The 25A- series specifications and dimensions are the same as those of the standard model.


# Vacuum Pump System Compact Vacuum Unit <br> $25 A-Z Q \square A$ Series 



| Stations |  |
| :---: | :---: |
| 01 | 1 station |
| 02 | 2 stations |
| ! | ! |
| 08 | 8 stations |

2 Vacuum pressure supply (PV)
port location*1

| L | Left side |
| :---: | :---: |
| R | Right side |

*1 The position of the vacuum pressure supply (PV) port when the vacuum (V) port is facing front. The pilot pressure supply (PS) port is on the opposite side.
Refer to the "Table 1" for details.

3 Release pressure supply (PD) port

| B | None (Release pressure: Commonly <br> supplied from the PS port) |
| :---: | :---: |
| $\mathbf{C} * 2$ | Provided (Release pressure: <br> Supplied from the PD port) |

*2 For a release pressure supply pressure of 0.3 MPa or lower, select " S " or " E " for (11 for the single unit part number on page 200.

Shipping configuration

| Nil | Assembled as a vacuum unit |
| :--- | :---: |
| $\mathbf{A} * 3$ | Manifold unit only |

*3 A set of end blocks and the clamp rod assembly is included in this manifold unit. (Used for the maintenance of the end block)

Table 1. Location of Each Port

| (2 PV port location | (3) PD port | Left side with the V port facing the front |  |  | Right side with the V port facing the front |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | PS port | PV port | PD port | PS port | PV port | PD port |
| L | B | - | $\bigcirc$ | - | $\bigcirc$ | - | - |
|  | C | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ |
| R | B | $\bigcirc$ | - | - | - | $\bigcirc$ | - |
|  | C | $\bigcirc$ | - | - | - | $\bigcirc$ | - |

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## Manifold Order Example

25A-ZZQ104A-ROB $\qquad$ 1 pc.

* 25A-ZQ000MA-K15L-EAG-0 $\cdot .2$ pcs. $\rightarrow$ Stations 1 and 2
* 25A-ZQ000MA-K15L-F-0 $\cdots \cdots .2$ pcs. $\rightarrow$ Stations 3 and 4
* When the manifold is viewed from the vacuum (V) port, the first station starts from the left.
25A-ZQ000MA-K15L-EAG-0 (2 pcs.) and 25A-ZQ000MA-K15L-F-0 (2 pcs.) are arranged from the first station.



## . Caution when ordering manifold

## 

I The asterisk $(*)$ denotes the symbol for the assembly.
I Prefix it to the single unit part number.
I If "*" is not entered, the manifold and single unit will be shipped without being assembled.
I When the manifold and the units are not assembled, please assemble them by referring to
I "How to increase/decrease manifold stations" in the Web Catalog.
I There is nothing else to arrange additionally.

Construction

Vacuum ejector (N.O. specification)


Vacuum pump system (N.C. specification)


Component Parts

| No. | Description | Material | Note |
| :---: | :---: | :---: | :---: |
| 1 | Body | PBT | Aluminum alloy is also used. |
| 2 | Supply valve / Release valve assembly | POM/Aluminum alloy/Stainless steel |  |
| 3 | Nozzle | PBT |  |
| 4 | Diffuser | PBT |  |
| 5 | Bushing | Aluminum alloy |  |
| 6 | Sound absorbing material | Non-woven fabric (PET) | Refer to 3 on page 204 for how to order. (When replacing the sound absorbing material, order a silencer plate assembly.) |
| 7 | Check valve | HNBR | Refer to 6 on page 204 for how to order. |
| 8 | Vacuum release flow adjusting needle | Stainless steel |  |
| 9 | Lock nut | Aluminum alloy (Anodized) |  |
| 10 | Filter case | PC (Refer to the precautions in the Web Catalog.) | Refer to 4 on page 204 for how to order. |
| 11 | Tension bolt | Stainless steel |  |
| 12 | Filter element | PVA sponge | Refer to 5 on page 204 for how to order. |
| 13 | Pilot supply valve / Pilot valve (for release) | - | Refer to 1 on page 203 for how to order. |
| 14 | Vacuum pressure switch | - | Refer to 2 on page 203 for how to order. |
| 15 | Vacuum (V) port M5 bushing | Aluminum alloy (Anodized) |  |
| 16 | Bracket assembly | Steel (Electroless nickel plating), Stainless steel | Refer to 7 on page 204 for how to order. |
| - | Seal material (O-ring, etc.) | NBR/HNBR |  |
| - | Screws for assembly | Steel (Electroless nickel plating), Stainless steel |  |

## 1 Solenoid Valve

(Recommended torque for replacement: 0.054 to $0.08 \mathrm{~N} \cdot \mathrm{~m}$ )


Valves


Supply Valves


Lead Wire with Connector Assembly for Solenoid Valve


## Connector and Socket for Solenoid Valve



## SY100-30-A

* With connector and
(Number of sockets: 3)

How to Order Replacement Parts for Single Unit


4 Filter Case Assembly * One filter element is included. ZQ1 - FC1 - A


## Bracket Assembly



# Compact Vacuum Unit/25A-ZQ $\square A$ Series Manifold Exploded View 



## How to increase/decrease manifold stations

## Disassembly

1. Remove 2 clamp rods (1).
2. Remove end block L (2). (Be careful not to drop the gasket.)

## Assembly

1. Confirm that the body gasket for manifold (6) is attached to the gasket groove on each single unit and that the exhaust block gasket (7) is also attached to the outer side of the raised part. (See View b.)
2. Confirm that the body gasket for manifold (6) is attached to the gasket groove on end block R (3).
3. Confirm that the exhaust block gasket (7) is attached to the outer side of the raised part on end block L (2)
4. Put together the single units for manifold, end block R (3), and end block L (2) using the positioning pins (at two "a" locations), and assemble them using the clamp rods (1). Tightening torque: 0.54 to $0.66 \mathrm{~N} \cdot \mathrm{~m}$

## Component Parts

| No. | Description | Material | Note |
| :---: | :--- | :---: | :---: |
| $\mathbf{1}$ | Clamp rod assembly | Steel (Electroless nickel plating) | Refer to 1 below for how to order. |
| $\mathbf{2}$ | End block L | PBT, POM, PET, Steel, Aluminum alloy, Stainless steel | Left side with the vacuum (V) port facing the front |
| $\mathbf{3}$ | End block R | PBT, POM, PET, Steel, Aluminum alloy, Stainless steel | Right side with the vacuum (V) port facing the front |
| $\mathbf{4}$ | Sound absorbing material (For Manifold) | Non-woven fabric (PET) | Refer to 2 below for how to order. |
| $\mathbf{5}$ | Silencer block assembly | PBT | Refer to 3 below for how to order. |
| $\mathbf{6}$ | Body gasket for manifold | NBR | Refer to 4 below for how to order. |
| $\mathbf{7}$ | Exhaust block gasket | NBR | Refer to 5 below for how to order. |
| $\mathbf{8}$ | Washer assembly | Stainless steel | Refer to 6 below for how to order. |
| $\mathbf{9}$ | Port block assembly | Rluminum alloy, Steel (Electroless nickel plating), NBR | Refer to 7 below for how to order. |

## How to Order Replacement Parts for Manifold

Clamp Rod Assembly (2 pcs. per set)


2 Sound Absorbing Material (For Manifold) ( 2 pcs. per set)

## ZQ1 - SE2 - A

Recommended tightening torque: 0.25 to $0.31 \mathrm{~N} \cdot \mathrm{~m}$

3 Silencer Block Assembly (2 pcs. per set)

$$
25 A-Z Q 1-S C 1-A
$$

2 Sound absorbing material
(For Manifold)

3 Silencer block assembly

## 4 Body Gasket for Manifold (10 pcs. per set)

ZQ-3-005-10AS
Exhaust Block Gasket (10 pcs. per set)
ZQ-3-009-10AS

6 Washer Assembly (4 pcs. per set)



Port Block Assembly
(2 pcs. per set)
25A - ZQ1 - EP2 - A


Recommended tightening torque: 0.25 to $0.31 \mathrm{~N} \cdot \mathrm{~m}$

## ZH Series

## RoHS

## Compact and lightweight



Weight (65.1 g lighter)

Box type (Built-in silencer)
 the box type.

## In-Iine Type Vacuum Ejector

## $Z U \square A$ Series

## Compact and Lightweight


O.D. $\varnothing$ (Previous model ø12.8)
weight 3.9
(Previous model 6.5 g )


52
mm (Previous model 59 mm )

## Application Examples

For preventing pad adsorption failures from the vacuum


Numerous pads can be used to adsorb workpieces with holes.

For improving responsiveness by installing on flexible parts


Can be used to open and close plastic bags

on the end of a Z-axis air cylinder

## Variations

| Model | Nozzle size [mm] | Standard supply pressure [MPa] | Ultimate vacuum pressure [kPa] |  | Maximum suction flow rate [L/min (ANR)] |  | Air consumption [L/min (ANR)] | Port size |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Type S | Type L | Type S | Type L |  |  |
| ZU03 $\square$ A | 0.3 | 0.35 | -85 | -40 | 1.8 | 3.4 | 4.2 | $\varnothing 4$ One-touch fitting ø5/32" |
| ZU04■A | 0.4 |  | -87 |  | 3.2 | 5.8 | 7.7 |  |
| ZU05 $\square$ A | 0.5 | 0.45 | -90 | -48 | 7 | 13 | 14 | ø6 One-touch fitting Rc1/8 |
| ZU07■A | 0.7 |  |  |  | 11 | 16 | 28 |  |

# Basic Pad <br> Flat Type <br> <br> ZP Series 

 <br> <br> ZP Series}
(1) Adapter (Lock ring) material

S $\quad$ Stainless steel (Stainless steel 304)

Vacuum inlet direction
T $\quad$ Vertical

Pad diameter

| $\mathbf{0 2}$ | $\varnothing 2$ | $\mathbf{1 6}$ | $\varnothing 16$ |
| :---: | :---: | :---: | :---: |
| $\mathbf{0 4}$ | $\varnothing 4$ | $\mathbf{2 0}$ | $\varnothing 20$ |
| $\mathbf{0 6}$ | $\varnothing 6$ | $\mathbf{2 5}$ | $\varnothing 25$ |
| $\mathbf{0 8}$ | $\varnothing 8$ | $\mathbf{3 2}$ | $\varnothing 32$ |
| $\mathbf{1 0}$ | $\varnothing 10$ | $\mathbf{4 0}$ | $\varnothing 40$ |
| $\mathbf{1 3}$ | $\varnothing 13$ | $\mathbf{5 0}$ | $\varnothing 50$ |

With adapter
Vacuum inlet

| Type | Symbol | Size | Pad diameter [mm] |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | ø2 to ø8 | $\varnothing 10$ to $\varnothing 16$ | ø20 to ø32 | ø40, ø50 |
| Male thread | A5 | M5 x 0.8 | ○*1 | - | - | - |
|  | AS5 |  | - | O*1 | O*1 | - |
|  | A6 | M6 x 1 | O*1 | - | - | - |
|  | AS6 |  | - | O*1 | O*1 | O*1 |
|  | AG01 | G1/8 | - | O*1 | O*1 | - |
|  | AG02 | G1/4 | - | - | - | O*1 |
| Female thread | Nil | M3 x 0.5 | - | (6 Connection thread: A5/A6) | (6 Connection thread: A6) | (6 Connection thread: A6) |
|  |  | M5 x 0.8 | - | - | (6 Connection thread: A8) | (6) Connection thread: A8) |
|  | B4 | M4 x 0.7 | O*1 | - | - | - |
|  | B5 | M5 x 0.8 | O*1 | O*1 | O*1 | - |
|  | B6 | M6 x 1 | - | O*1 | O*1 | O*1 |
|  | B8 | M8 x 1.25 | - | - | O*1 | O*1 |
|  | B01 | Rc1/8 | - | ○*1 | O*1 | O*1 |
|  | BG01 | G1/8 | - | O*1 | O*1 | - |
|  | BG02 | G1/4 | - | - | - | O*1 |

*1 Use the connection thread.

## 6 Connection thread

| Type | Symbol | Size | Pad diameter $[\mathrm{mm}]$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\varnothing 2$ to $\varnothing 8$ | $\varnothing 10$ to $\varnothing 16$ | $\varnothing 20$ to $\varnothing 32$ | $\varnothing 40, \varnothing 50$ |
| Male <br> thread | A6 | - | $\mathrm{O}^{* 2}$ | - | - |  |
|  | A6 | $\mathrm{M} 6 \times 1$ | - | $\mathrm{O}^{* 2}$ | $\mathrm{O}^{* 2}$ | $\mathrm{O}^{* 2}$ |
|  | A8 | $\mathrm{M} 8 \times 1$ | - | - | $\mathrm{O}^{* 2}$ | $\mathrm{O}^{* 2}$ |

*2 With a (female) vacuum inlet
(4) Material

| N | NBR |
| :---: | :---: |
| S | Silicone rubber*1*2 |
| $\mathbf{U}$ | Urethane rubber |
| F | FKM |
| GN | Conductive NBR |
| GS | Conductive silicone rubber |

*1 Compliant with the FDA (USA Food and Drug Administration) regulation 21CFR§177.2600 for "Rubber articles intended for repeated use"
*2 Compliant with the standards for "Rubber apparatus (excluding baby drinking apparatus) and containers/packaging" (D3) (Partial revision: Ministry of Health, Labour, and Welfare Notification No. 595, 2012) in Section 3 "Apparatus and Containers/ Packaging" of the Food Sanitation Act, Article 18 "Specifications and Standards for Food and Food Additives, etc." (Ministry of Health and Welfare Notification No. 370, 1959)

## Lock ring unit

| Part no. | Pad diameter $[\mathrm{mm}]$ |
| :---: | :---: |
| ZPSL1 | $\varnothing 10$ to $\varnothing 16$ |
| ZPSL2 | $\varnothing 20$ to $\varnothing 32$ |
| ZPSL3 | $\varnothing 40, \varnothing 50$ |

# Basic Pad Flat Type with Ribs <br> IZ Series 



Adapter (Lock ring) material
S $\quad$ Stainless steel (Stainless steel 304)

Vacuum inlet direction
$\qquad$ Vertical

## With adapter

Vacuum inlet

| Type | Symbol | Size | Pad diameter [mm] |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\varnothing 10$ to ø16 | $\varnothing 20$ to ø32 | ø40, ø50 |
| Male thread | AS5 | M5 x 0.8 | ○2 | ○*2 | - |
|  | AS6 | M6 x 1 | $\bigcirc * 2$ | $\bigcirc * 2$ | $\bigcirc * 2$ |
|  | AG01 | G1/8 | $\bigcirc * 2$ | ○*2 | - |
|  | AG02 | G1/4 | - | - | ○*2 |
| Female thread | Nil | M3 x 0.5 | (6) Connection thread: A5/A6) | (6) Connection thread: A6) | (6) Connection thread: A6) |
|  |  | M5 x 0.8 | - | (6) Connection thread: A8) | (6) Connection thread: A8) |
|  | B5 | M5 x 0.8 | -*2 | -*2 | - |
|  | B6 | M6 x 1 | $\bigcirc * 2$ | ○*2 | $\bigcirc * 2$ |
|  | B8 | M8 x 1.25 | - | **2 | ○*2 |
|  | B01 | Rc1/8 | ○*2 | ○*2 | $\bigcirc * 2$ |
|  | BG01 | G1/8 | ○*2 | ○*2 | - |
|  | BG02 | G1/4 | - | - | $\bigcirc * 2$ |

## *1 Use the connection thread.

## Connection thread

| Type | Symbol | Size | Pad diameter [mm] |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\varnothing 20$ to $\varnothing 32$ | $\varnothing 40, \varnothing 50$ |  |
| Male <br> thread | A5 | $\mathrm{M} 5 \times 0.8$ | $\mathrm{O}^{* 2}$ | - | - |
|  | A6 | $\mathrm{M} 6 \times 1$ | O 2 | $\mathrm{O}^{* 2}$ | $\mathrm{O}^{* 2}$ |
|  | A8 | $\mathrm{M} 8 \times 1$ | - | $\mathrm{O}^{* 2}$ | $\mathrm{O}^{* 2}$ |

[^48]| 10 | $\varnothing 10$ |
| :---: | :---: |
| 13 | $\varnothing 13$ |
| 16 | $\varnothing 16$ |
| 20 | ø20 |
| 25 | ø25 |
| 32 | ø32 |
| 40 | ø40 |
| 50 | ø50 |

4 Material

| $\mathbf{N}$ | NBR |
| :---: | :---: |
| $\mathbf{S}$ | Silicone rubber*1 $* 2$ |
| $\mathbf{U}$ | Urethane rubber |
| $\mathbf{F}$ | FKM |
| $\mathbf{G N}$ | Conductive NBR |
| $\mathbf{G S}$ | Conductive silicone rubber |

*1 Compliant with the FDA (USA Food and Drug Administration) regulation 21CFR§177.2600 for "Rubber articles intended for repeated use"
*2 Compliant with the standards for "Rubber apparatus (excluding baby drinking apparatus) and containers/packaging" (D3) (Partial revision: Ministry of Health, Labour, and Welfare Notification No. 595, 2012) in Section 3 "Apparatus and Containers/ Packaging" of the Food Sanitation Act, Article 18 "Specifications and Standards for Food and Food Additives, etc." (Ministry of Health and Welfare Notification No. 370, 1959)

## Lock ring unit

| Part no. | Pad diameter $[\mathrm{mm}]$ |
| :---: | :---: |
| ZPSL1 | $\varnothing 10$ to $\varnothing 16$ |
| ZPSL2 | $\varnothing 20$ to $\varnothing 32$ |
| ZPSL3 | $\varnothing 40, \varnothing 50$ |

# Basic Pad Bellows Type ZP Series 



1 Adapter (Lock ring) material
S $\quad$ Stainless steel (Stainless steel 304)

Vacuum inlet direction
T Vertical

## Pad diameter

| $\mathbf{0 6}$ | $\varnothing 6$ | $\mathbf{2 0}$ | $\varnothing 20$ |
| :---: | :---: | :---: | :---: |
| $\mathbf{0 8}$ | $\varnothing 8$ | $\mathbf{2 5}$ | $\varnothing 25$ |
| $\mathbf{1 0}$ | $\varnothing 10$ | $\mathbf{3 2}$ | $\varnothing 32$ |
| $\mathbf{1 3}$ | $\varnothing 13$ | $\mathbf{4 0}$ | $\varnothing 40$ |
| $\mathbf{1 6}$ | $\varnothing 16$ | $\mathbf{5 0}$ | $\varnothing 50$ |

## With adapter

## Vacuum inlet

| Type | Symbol | Size | Pad diameter [mm] |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | ø6, ø8 | $\varnothing 10$ to $\varnothing 16$ | ø20 to ø32 | ø40, ø50 |
| Male thread | A5 | M5 x 0.8 | O*1 | - | - | - |
|  | AS5 |  | - | O*1 | O*1 | - |
|  | A6 | M6 x 1 | O*1 | - | - | - |
|  | AS6 |  | - | O*1 | O*1 | O*1 |
|  | AG01 | G1/8 | - | O*1 | O*1 | - |
|  | AG02 | G1/4 | - | - | - | O*1 |
| Female thread | Nil | M3 x 0.5 | - | O (6 Connection thread: A5/A6) | (6 Connection thread: A6) | (6 Connection thread: A6) |
|  |  | M5 x 0.8 | - | - | (6 Connection thread: A8) | (6) Connection thread: A8) |
|  | B4 | M4 x 0.7 | O*1 | - | - | - |
|  | B5 | M5 x 0.8 | O*1 | O*1 | O*1 | - |
|  | B6 | M6 x 1 | - | O*1 | O*1 | O*1 |
|  | B8 | M8 x 1.25 | - | - | O*1 | O*1 |
|  | B01 | Rc1/8 | - | ○*1 | O*1 | O*1 |
|  | BG01 | G1/8 | - | O*1 | O*1 | - |
|  | BG02 | G1/4 | - | - | - | O*1 |

## *1 Use the connection thread.

## 6 Connection thread

| Type | Symbol | Size | Pad diameter $[\mathrm{mm}]$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\varnothing 6, \varnothing 8$ | $\varnothing 10$ to $\varnothing 16$ | $\varnothing 20$ to $\varnothing 32$ | $\varnothing 40, \varnothing 50$ |
| Male <br> thread | A6 | $\mathrm{M} 6 \times 1$ | - | $\mathrm{O}^{* 2}$ | - | - |
|  | A8 | $\mathrm{M} 8 \times 1$ | - | $\mathrm{O}^{* 2}$ | $\mathrm{O}^{* 2}$ | $\mathrm{O}^{* 2}$ |
|  | A8 | - | $\mathrm{O}^{* 2}$ | $\mathrm{O}^{* 2}$ |  |  |

*2 With a (female) vacuum inlet
(4) Material

| N | NBR |
| :---: | :---: |
| S | Silicone rubber*1 *2 |
| $\mathbf{U}$ | Urethane rubber |
| F | FKM |
| GN | Conductive NBR |
| GS | Conductive silicone rubber |

*1 Compliant with the FDA (USA Food and Drug Administration) regulation 21CFR§177.2600 for "Rubber articles intended for repeated use"
*2 Compliant with the standards for "Rubber apparatus (excluding baby drinking apparatus) and containers/packaging" (D3) (Partial revision: Ministry of Health, Labour, and Welfare Notification No. 595, 2012) in Section 3 "Apparatus and Containers/ Packaging" of the Food Sanitation Act, Article 18 "Specifications and Standards for Food and Food Additives, etc." (Ministry of Health and Welfare Notification No. 370, 1959)

## Lock ring unit

| Part no. | Pad diameter $[\mathrm{mm}]$ |
| :---: | :---: |
| ZPSL1 | $\varnothing 10$ to $\varnothing 16$ |
| ZPSL2 | $\varnothing 20$ to $\varnothing 32$ |
| ZPSL3 | $\varnothing 40, \varnothing 50$ |

# ZP Series 

How to Order


## Adapter material

S $\quad$ Stainless steel (Stainless steel 304)

## 4 Material

| $\mathbf{N}$ | NBR |
| :---: | :---: |
| $\mathbf{S}$ | Silicone rubber*1*2 |
| $\mathbf{U}$ | Urethane rubber |
| $\mathbf{F}$ | FKM |
| GN | Conductive NBR |
| GS | Conductive silicone rubber |

*1 Compliant with the FDA (USA Food and Drug Administration) regulation 21CFR§177.2600 for "Rubber articles intended for repeated use"
*2 Compliant with the standards for "Rubber apparatus (excluding baby drinking apparatus) and containers/packaging" (D3) (Partial revision: Ministry of Health, Labour, and Welfare Notification No. 595, 2012) in Section 3 "Apparatus and Containers/Packaging" of the Food Sanitation Act, Article 18 "Specifications and Standards for Food and Food Additives, etc." (Ministry of Health and Welfare Notification No. 370, 1959)

## Vacuum inlet direction

T Vertical

## With adapter

## (5) Vacuum inlet

| Type | Symbol | Size | Pad diameter |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Female <br> thread | A5 | M5 $\times 0.8$ | $\bigcirc$ |
|  | A6 | $\mathrm{M} 6 \times 1$ | $\bigcirc$ |
| One-touch <br> fitting | B4 | $\mathrm{M} 4 \times 0.7$ | $\bigcirc$ |
|  | B5 | $\mathrm{M} 5 \times 0.8$ | $\bigcirc$ |

(3) Pad diameter

| 10 | $\varnothing 10$ |
| :---: | :---: |
| 13 | $\varnothing 13$ |
| 16 | $\varnothing 16$ |



## Adapter material

S $\quad$ Stainless steel (Stainless steel 304)

## Vacuum inlet direction

T Vertical

## With adapter

## Vacuum inlet

| Type | Symbol | Size | Pad diameter |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Male <br> thread | A5 | $\mathrm{M} 5 \times 0.8$ | $\bigcirc$ |
|  | A6 | $\mathrm{M} 6 \times 1$ | $\bigcirc$ |
| Female <br> thread | $\mathrm{B4}$ | $\mathrm{M} 4 \times 0.7$ | $\bigcirc$ |
|  | $\mathrm{B5}$ | $\mathrm{M} 5 \times 0.8$ | $\bigcirc$ |

(3) Pad diameter

| 10 | $\varnothing 10$ |
| :---: | :---: |
| 13 | $\varnothing 13$ |
| 16 | $\varnothing 16$ |


| $\mathbf{N}$ | NBR |
| :---: | :---: |
| $\mathbf{S}$ | Silicone rubber*1*2 |
| $\mathbf{U}$ | Urethane rubber |
| $\mathbf{F}$ | FKM |
| GN | Conductive NBR |
| GS | Conductive silicone rubber |

*1 Compliant with the FDA (USA Food and Drug Administration) regulation 21CFR§177.2600 for "Rubber articles intended for repeated use"
*2 Compliant with the standards for "Rubber apparatus (excluding baby drinking apparatus) and containers/packaging" (D3) (Partial revision: Ministry of Health, Labour, and Welfare Notification No. 595, 2012) in Section 3 "Apparatus and Containers/Packaging" of the Food Sanitation Act, Article 18 "Specifications and Standards for Food and Food Additives, etc." (Ministry of Health and Welfare Notification No. 370, 1959)

# Basic Pad <br> Deep Type 

ZP Series


Adapter (Lock ring) material
S $\quad$ Stainless steel (Stainless steel 304)

## (3) Pad diameter

| 10 | $\varnothing 10$ |
| :---: | :---: |
| 16 | $\varnothing 16$ |
| 25 | $\varnothing 25$ |
| 40 | $\varnothing 40$ |

Vacuum inlet direction
T
T Vertical

## With adapter

Vacuum inlet

| Type | Symbol | Size | Pad diameter [mm] |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | ø10, $\varnothing 16$ | ø25 | $\varnothing 40$ |
| Male thread | AS5 | M5 x 0.8 | O*1 | O*1 | - |
|  | AS6 | M6 x 1 | O*1 | -*1 | ○*1 |
|  | AG01 | G1/8 | O*1 | O*1 | - |
|  | AG02 | G1/4 | - | - | ○*1 |
| Female thread | Nil | M3 x 0.5 | (6 Connection thread: A5/A6) | (6) Connection thread: A6) | (6 Connection thread: A6) |
|  |  | M5 x 0.8 | - | (6) Connection thread: A8) | (6 Connection thread: A8) |
|  | B5 | M5 x 0.8 | O*1 | O*1 | - |
|  | B6 | M6x 1 | O*1 | O*1 | O*1 |
|  | B8 | M8 $\times 1.25$ | - | - ${ }^{1}$ | -*1 |
|  | B01 | Rc1/8 | O*1 | O*1 | O*1 |
|  | BG01 | G1/8 | ○*1 | ○*1 | - |
|  | BG02 | G1/4 | - | - | O*1 |

*1 Use the connection thread.
6 Connection thread

| Type | Symbol | Size | Pad diameter $[\mathrm{mm}]$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\varnothing 10, \varnothing 16$ | $\varnothing 25$ | $\varnothing 40$ |
| Male <br> thread | A5 | $\mathrm{M} 5 \times 0.8$ | $\mathrm{O}^{* 2}$ | - | - |
|  | A6 | $\mathrm{M} 6 \times 1$ | $\mathrm{O}^{* 2}$ | $\mathrm{O}^{* 2}$ | $\mathrm{O}^{* 2}$ |
|  | A8 | $\mathrm{M} 8 \times 1$ | - | $\mathrm{O}^{* 2}$ | $\mathrm{O}^{* 2}$ |

*2 With a (female) vacuum inlet
(4) Material

| $\mathbf{N}$ | NBR |
| :---: | :---: |
| $\mathbf{S}$ | Silicone rubber*1 $* 2$ |
| $\mathbf{U}$ | Urethane rubber |
| F | FKM |
| GN | Conductive NBR |
| GS | Conductive silicone rubber |

*1 Compliant with the FDA (USA Food and Drug Administration) regulation 21CFR§177.2600 for "Rubber articles intended for repeated use"
*2 Compliant with the standards for "Rubber apparatus (excluding baby drinking apparatus) and containers/packaging" (D3) (Partial revision: Ministry of Health, Labour, and Welfare Notification No. 595, 2012) in Section 3 "Apparatus and Containers/ Packaging" of the Food Sanitation Act, Article 18 "Specifications and Standards for Food and Food Additives, etc." (Ministry of Health and Welfare Notification No. 370, 1959)

## Lock ring unit

| Part no. | Pad diameter $[\mathrm{mm}]$ |
| :---: | :---: |
| ZPSL1 | $\varnothing 10, \varnothing 16$ |
| ZPSL2 | $\varnothing 25$ |
| ZPSL3 | $\varnothing 40$ |

# ZP3 Series 

Pad diameter: ø1.5, ø2, ø3.5

How to Order

(1) Adapter material

S Stainless steel (Stainless steel 304)
(3) Pad diameter

| 015 | $\varnothing 1.5$ |
| :---: | :---: |
| $\mathbf{0 2}$ | $\varnothing 2$ |
| $\mathbf{0 3 5}$ | $\varnothing 3.5$ |

## With adapter

5 Connection thread/ 6 Vacuum inlet

| 5 Connection thread |  |  | 6 Vacuum inlet |  |  | Pad diameter |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type | Symbol | Size | Type | Symbol | Size | All sizes |
| Male <br> thread | A3 | $\mathrm{M} 3 \times 0.5$ | - | Nil | $-* 1$ | $\bigcirc$ |
|  | $\mathbf{A 6}$ | $\mathrm{M} 6 \times 0.75$ | Female thread | $\mathbf{B 3}$ | $\mathrm{M} 3 \times 0.5$ | $\bigcirc$ |

[^49](4) Material

| $\mathbf{N}$ | NBR |
| :---: | :---: |
| $\mathbf{S}$ | Silicone rubber*1*2 |
| $\mathbf{U}$ | Urethane rubber |
| F | FKM |
| GN | Conductive NBR |
| GS | Conductive silicone rubber |

*1 Compliant with the FDA (USA Food and Drug Administration) regulation 21CFR§177.2600 for "Rubber articles intended for repeated use"
*2 Compliant with the standards for "Rubber apparatus (excluding baby drinking apparatus) and containers/packaging" (D3) (Partial revision: Ministry of Health, Labour, and Welfare Notification No. 595, 2012) in Section 3 "Apparatus and Containers/ Packaging" of the Food Sanitation Act, Article 18 "Specifications and Standards for Food and Food Additives, etc." (Ministry of Health and Welfare Notification No. 370, 1959)


Compact Type

# ZP3 Series 

Pad diameter: $\varnothing 4, \varnothing 6, \varnothing 8, \varnothing 10, \varnothing 13, \varnothing 16$

## Pad unit ZP3 - 04 UM N



Adapter material
S Stainless steel (Stainless steel 304)

3 Pad diameter

| $\mathbf{0 4}$ | $\varnothing 4$ |
| :---: | :---: |
| 06 | $\varnothing 6$ |
| 08 | $\varnothing 8$ |
| 10 | $\varnothing 10$ |
| 13 | $\varnothing 13$ |
| 16 | $\varnothing 16$ |

(4) Material

| $\mathbf{N}$ | NBR |
| :---: | :---: |
| $\mathbf{S}$ | Silicone rubber*1*2 |
| $\mathbf{U}$ | Urethane rubber |
| F | FKM |
| GN | Conductive NBR |
| GS | Conductive silicone rubber |
| HS | Semiconductive silicone rubber |

*1 Compliant with the FDA (USA Food and Drug Administration) regulation 21CFR§177.2600 for "Rubber articles intended for repeated use"
*2 Compliant with the standards for "Rubber apparatus (excluding baby drinking apparatus) and containers/packaging" (D3) (Partial revision: Ministry of Health, Labour, and Welfare Notification No. 595, 2012) in Section 3 "Apparatus and Containers/ Packaging" of the Food Sanitation Act, Article 18 "Specifications and Standards for Food and Food Additives, etc." (Ministry of Health and Welfare Notification No. 370, 1959).

# Compact Type <br> Bellows Type 

# ZP3 Series <br> Pad diameter: $\varnothing 4, \varnothing 6, \varnothing 8$ 

How to Order


## 1 Adapter material

S Stainless steel (Stainless steel 304)


## With adapter

Connection thread/ 6 Vacuum inlet
O: ZP3S-T/Vertical ©: ZP3S-Y/Lateral

| 5 Connection thread |  |  | 6 Vacuum inlet |  |  | Pad diameter |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type | Symbol | Size | Type | Symbol | Size | All sizes |
| Male <br> thread | A5 | M5 $\times 0.8$ | - | Nil | Use the connection thread. | $\bigcirc$ |
| Female <br> thread | B5 | M10 | M5 $\times 0.8$ | Female thread | B5 | M5 $\times 0.8$ |
| $\bigcirc$ |  |  |  |  |  |  |
|  | Female thread | B5 | Nil | Use the connection thread. | $\bigcirc$ |  |

(4) Material

| $\mathbf{N}$ | NBR |
| :---: | :---: |
| $\mathbf{S}$ | Silicone rubber*1*2 |
| $\mathbf{U}$ | Urethane rubber |
| F | FKM |
| GN | Conductive NBR |
| GS | Conductive silicone rubber |

*1 Compliant with the FDA (USA Food and Drug Administration) regulation 21CFR§177.2600 for "Rubber articles intended for repeated use"
*2 Compliant with the standards for "Rubber apparatus (excluding baby drinking apparatus) and containers/packaging" (D3) (Partial revision: Ministry of Health, Labour, and Welfare Notification No. 595, 2012) in Section 3 "Apparatus and Containers/ Packaging" of the Food Sanitation Act, Article 18 "Specifications and Standards for Food and Food Additives, etc." (Ministry of Health and Welfare Notification No. 370, 1959)

Compact Type
For pad units and pads with an adapter (stainless steel type): The standard product is a secondary battery compatible product. For details on specifications and dimensions, refer to the Web Catalog

## Bellows Type with Ribs

## ZP3 Series

Pad diameter: $\varnothing 10, \varnothing 13, \varnothing 16$

How to Order


## 1 Adapter material

S
Stainless steel (Stainless steel 304)
3 Pad diameter

| $\mathbf{1 0}$ | $\boxed{10}$ |
| :---: | :---: |
| $\mathbf{1 3}$ | $\boxed{1} 3$ |
| $\mathbf{1 6}$ | $\varnothing 16$ |

## With adapter

5 Connection thread/ 6 Vacuum inlet
O: ZP3S-T/Vertical ©: ZP3S-Y/Lateral

| (5) Connection thread |  |  | 6 Vacuum inlet |  |  | Pad diameter |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type | Symbol | Size | Type | Symbol | Size | All sizes |
| Male <br> thread | A5 | M5 $\times 0.8$ | - | Nil | Use the connection thread. | $\bigcirc$ |
| Female <br> thread | B5 | M12 | M5 $\times 0.8$ | Female thread | B5 | M5 $\times 0.8$ |

(4) Material

| $\mathbf{N}$ | NBR |
| :---: | :---: |
| $\mathbf{S}$ | Silicone rubber*1*2 |
| $\mathbf{U}$ | Urethane rubber |
| $\mathbf{F}$ | FKM |
| GN | Conductive NBR |
| GS | Conductive silicone rubber |

*1 Compliant with the FDA (USA Food and Drug Administration) regulation 21CFR§177.2600 for "Rubber articles intended for repeated use"
*2 Compliant with the standards for "Rubber apparatus (excluding baby drinking apparatus) and containers/packaging" (D3) (Partial revision: Ministry of Health, Labour, and Welfare Notification No. 595, 2012) in Section 3 "Apparatus and Containers/Packaging" of the Food Sanitation Act, Article 18 "Specifications and Standards for Food and Food Additives, etc." (Ministry of Health and Welfare Notification No. 370, 1959)

# Vacuum Pad <br> ZP3P－PT Series 

Pad diameter：$\varnothing 20, \varnothing 25, \varnothing 35, \varnothing 50$

（1）Adapter material

| Nil | Aluminum |
| :---: | :---: |
| $\mathbf{S}$ | Stainless steel <br> （Stainless steel 304） |

2 Pad diameter

| 20 | $\varnothing 20$ |
| :--- | :--- |
| 25 | $\varnothing 25$ |
| 35 | $\varnothing 35$ |
| 50 | $\varnothing 50$ |

## With adapter

（3）Pad material
SF $\qquad$
＊1 Compliant with the FDA（USA Food and Drug Administration） regulation 21CFR§177．2600 for＂Rubber articles intended for re－ peated use＂
＊2 Compliant with the standards for＂Rubber apparatus（excluding baby drinking apparatus）and containers／packaging＂（D3）（Partial revision：Ministry of Health，Labour，and Welfare Notification No． 595，2012）in Section 3 ＂Apparatus and Containers／Packaging＂of the Food Sanitation Act，Article 18 ＂Specifications and Standards for Food and Food Additives，etc．＂（Ministry of Health and Welfare Notification No．370，1959）．

## Vacuum Pad

2.5-Stage Bellows Type


## (4) Connection thread/5 Vacuum inlet

| (4) Connection thread |  |  |  | (5) Vacuum inlet |  |  | Pad diameter [mm] |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type | Thread | Symbol | Size | Thread | Symbol | Size | ø20, ø25 | $ø 32, \varnothing 40, \varnothing 50$ |
| Direct mounting | Male thread | AG01 | G1/8 | - | Nil | -*1 | $\bigcirc$ | $\bigcirc$ |
|  |  | AG02 | G1/4 |  |  |  | $\bigcirc$ | $\bigcirc$ |
|  |  | AG03 | G3/8 |  |  |  | $\bigcirc$ | $\bigcirc$ |
|  |  | AG04 | G1/2 |  |  |  | - | $\bigcirc$ |
|  | Female thread | BG01 | G1/8 | - | Nil | -*1 | $\bigcirc$ | - |
|  |  | BG02 | G1/4 |  |  |  | - | $\bigcirc$ |
| Plate mounting | Male thread | 16 | M16 $\times 1$ | Female | B01 | Rc1/8 | - | - |
|  |  |  | M16 $\times 1$ | thread | BN01 | NPT1/8 |  |  |
|  |  | A20 | M20 x 1 | Female thread | B02 | Rc1/4 | - | - |
|  |  | A20 |  |  | BN02 | NPT1/4 |  |  |

[^50]Pad, adapter assembly, and mounting nuts are included but do not come assembled.


## Vacuum Pad

5.5-Stage Bellows Type


With adapter

## (3) Connection thread/4 Vacuum inlet

| (3) Connection thread |  |  |  | (4) Vacuum inlet |  |  | Pad diameter [mm] |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type | Thread | Symbol | Size | Thread | Symbol | Size | ø20, ø25 | $\varnothing 32$ to ø50 |
| Direct mounting | Male thread | AG01 | G1/8 | - | Nil | -*1 | $\bigcirc$ | $\bigcirc$ |
|  |  | AG02 | G1/4 |  |  |  | - | $\bigcirc$ |
|  | Female thread | BG01 | G1/8 | - | Nil | -*1 | $\bigcirc$ | - |
|  |  | BG02 | G1/4 |  |  |  | - | $\bigcirc$ |
| Plate mounting | Male thread | A16 | M16 x 1 | Female thread | B01 | Rc1/8 | - | - |
|  |  |  |  |  | BN01 | NPT1/8 |  |  |
|  |  | A20 | M20 x 1 | Female thread | B02 | Rc1/4 | - | $\bigcirc$ |
|  |  |  |  |  | BN02 | NPT1/4 |  |  |

[^51]Pad, adapter assembly, and mounting nuts are included but do not come assembled.


| Vacuum inlet direction |  |
| :---: | :---: |
| $\mathbf{N i l}$ | Pad unit |
| $\mathbf{T}$ | Vertical |

2 2 Pad diameter

| 20 | $ø 20$ |
| :---: | :---: |
| 25 | $ø 25$ |
| 32 | $ø 32$ |
| 40 | $\varnothing 40$ |
| 50 | $\varnothing 50$ |

3 Pad form

| C | Flat type with ribs |
| :---: | :---: |
| B | Bellows type |

(4) Mesh filter

| Nil | Without mesh filter |
| :---: | :---: |
| MF | With mesh filter |

Connection thread

| Type | Thread | Symbol | Size | Pad diameter [mm] |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\varnothing 20$ to $\varnothing 32$ | $\varnothing 40, \varnothing 50$ |
| Direct mounting | Male thread | A8 | M8×1 | - | - |
|  |  | A10 | M10 $\times 1$ | - | $\bigcirc$ |
|  |  | AG01 | G1/8 | $\bigcirc$ | - |
|  |  | AG02 | G1/4 | - | $\bigcirc$ |
|  | Female thread | BG01 | G1/8 | $\bigcirc$ | - |
|  |  | BG02 | G1/4 | - | $\bigcirc$ |

* Use the connection thread for the vacuum inlet.


## Specifications

Pad/Mesh filter specifications

| Pad | Material | FS61 (Fluoro-based rubber) |
| :--- | :--- | :---: |
|  | Color | Green |
|  | Hardness (Shore A: $\pm 5^{\circ}$ ) | 60 |
| Mesh filter |  | Opening: $250 \mu \mathrm{~m}$ |

Adapter specifications

| Connection | Male thread |  | Female thread |  |
| :---: | :---: | :---: | :---: | :---: |
| Pad diameter | $\varnothing \mathbf{2 0}$ to $\varnothing \mathbf{3 2}$ | $\varnothing \mathbf{4 0 , ~} \mathbf{5 0}$ | $\varnothing \mathbf{2 0}$ to $\varnothing \mathbf{3 2}$ | $\varnothing \mathbf{4 0 , \varnothing 5 0}$ |
| Connection thread | M8 $\times 1$ <br> $\mathrm{G} 1 / 8$ | M10 $\times 1$ <br> G1/4 | $\mathrm{G} 1 / 8$ | $\mathrm{G} 1 / 4$ |
| Vacuum inlet | Use the connection thread. |  |  |  |

# Vacuum Pad/Bowl Shape with Non-slip Feature 


Vacuum inlet direction
T $\quad$ Vertical

| ymbol | Material | Color |
| :---: | :---: | :---: |
| FS | FS61 (Fluoro-based rubber) | Green |

(5) Mesh filter

| Nil | None |
| :---: | :---: |
| MF | With mesh filter |

Mesh filter unit

| Part no. | Pad diameter |  |
| :---: | :---: | :---: |
|  | $\varnothing \mathbf{3 2}$ to $\varnothing 50$ | $\varnothing 63$ to $\varnothing 100$ |
| ZPMF-60-D13 | $\bullet$ | - |
| ZPMF-60-D18 | - | $\bullet$ |

* The adapter and pad are adhered to each other and cannot be disassembled.


## Specifications

Pad Material

| Material | FS61 <br> (Fluoro-based rubber) |
| :---: | :---: |
| Color of rubber | Green |
| Rubber hardness <br> (Shore A: $\pm 5^{\circ}$ ) | 60 |
| Operating temperature range ${ }^{* 1}$ | $0^{\circ} \mathrm{C}$ to $200^{\circ} \mathrm{C}$ |
| Ambient temperature | $0^{\circ} \mathrm{C}$ to $150^{\circ} \mathrm{C}$ |

*1 Surface temperature of the workpiece to be adsorbed

## Adapter Specifications

| Connection | Male thread |  | Female thread |  | Square adapter |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Pad diameter | $\varnothing 32$ to $\varnothing 50$ | $\varnothing 63$ to $\varnothing 100$ | $\propto 32$ to $\varnothing 50$ | $\varnothing 63$ to $\varnothing 100$ | $\varnothing 32$ to $\varnothing 100$ |
| Size | $\begin{gathered} \text { M10 } \times 1.0 \\ \text { G1/4 } \end{gathered}$ | $\begin{gathered} \text { M16 } \times 1.5 \\ \text { G1/4 } \end{gathered}$ |  | $\begin{aligned} & x 1.0 \\ & 1 / 4 \\ & 3 / 8 \end{aligned}$ | $\square 31.8$ |
| Vacuum inlet |  | Use the co | nection threas | ad and type. |  |

## Pad Specifications

| Part no. | Horizontal holding force [N]*1 |  | Minimum curvature radius <br> for adsorption $[\mathrm{mm}]^{* 2}$ |
| :---: | :---: | :---: | :---: |
|  | Without oil | With oil | 14 |
| ZP3M-T40RFS | 81 | 21 | 15 |
| ZP3M-T50RFS | 111 | 74 | 20 |
| ZP3M-T63RFS | 170 | 108 | 27.5 |
| ZP3M-T80RFS | 231 | 178 | 36 |
| ZP3M-T100RFS | 387 | 224 | 46 |

*1 These are actual measurement values when flat workpieces were adsorbed and are not guaranteed values. (According to the SMC test) The values vary depending on the conditions (shape, surface roughness, oil type, oil amount, and other conditions) of the workpiece.
*2 These are actual measurement values when cylindrical workpieces were adsorbed and are not guaranteed values. (According to the SMC test)

## Mesh Filter Specifications

| Mesh filter | 60 |
| :--- | :---: |
| Opening | $250 \mu \mathrm{~m}$ |

## How to Order


1 Body size

| $\mathbf{2 0}$ | $\varnothing 20 \mathrm{~mm}$ |
| :---: | :---: |
| $\mathbf{3 0}$ | $\varnothing 30 \mathrm{~mm}$ |
| $\mathbf{4 0}$ | $\varnothing 40 \mathrm{~mm}$ |
| $\mathbf{6 0}$ | $\varnothing 60 \mathrm{~mm}$ |
| $\mathbf{8 0}$ | $\varnothing 80 \mathrm{~mm}$ |


(3) Mounting plate (Size 20)


*1 Refer to the Table 1. With Vibration Suppression Cover for the size and material.

* Stoppers cannot be retrofitted.
* Vibration suppression cover can be retrofitted to the basic type.
* The vibration suppression cover cannot be used with the type with stoppers.
* The mounting plate is shipped together with the product but does not come assembled. Single unit part nos. $\Rightarrow$ Web Catalog
* The piping methods for types with and without a mounting plate are shown in Table 2 below.

Table 1. With Vibration Suppression Cover

| Symbol | Material | Body size symbol | Body material |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Aluminum | Resin | Stainless steel |
| VP | Resin | 20 | - | - | - |
|  |  | 30 | - | - | - |
|  |  | 40 | $\bigcirc$ | $\bigcirc$ | - |
|  |  | 60 | - | - | - |
|  |  | 80 | - | - | - |
| VS | Stainless steel | 20 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  | 30 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  | 40 | - | - | $\bigcirc$ |
|  |  | 60 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  | 80 | - | - | - |

Table 2. Size 20 Piping (Refer to the Web Catalog for details on how to mount the product.)

| Without mounting plate | Side ported | Body |
| :---: | :---: | :---: |
|  | Can be used by blocking the supply port on the top surface of the product with the mounting surface and connecting form the side port | Can be used by connecting the piping inside the mounting surface with the supply port on the top surface of the product |
| With mounting plate | Top ported | Side ported |
|  | Can be used by mounting a fiting on the supply port on the top surface of the product and connecting | Can be used by booking the supply port on the top surface of the product with the mounting plate and connecting foom the side port |

* An O-ring ( $5.7 \times 3.7 \times 1$ ) and a plug are shipped together with the product as accessories. 223

Attachments/Part Nos.

| Stopper |  | $\text { PS } 2$ |  |
| :---: | :---: | :---: | :---: |
| Material |  | Stopper size |  |
| PN | NBR (Black) | Symbol | Body size |
| PS | Silicone rubber (White) | 1 | 20, 30 |
|  |  | 2 | 40,60, 80 |

* Stopper size 1: With 3 stoppers

Stopper size 2: With 3 stoppers and 3 spring pins For replacement instructions $\Rightarrow$ Refer to the Web Catalog.


* For stainless steel:

Body sizes $\varnothing 20 \mathrm{~mm}$ and $\varnothing 30 \mathrm{~mm}$ : With 2 mounting screws
Body sizes $\varnothing 40 \mathrm{~mm}, \varnothing 60 \mathrm{~mm}$, and $\varnothing 80 \mathrm{~mm}$ : With 3 mounting screws

# Bernoulli Gripper With Coanda Grip ZNC-C Series 



1) Body size

| $\mathbf{2 0}$ | $\varnothing 20 \mathrm{~mm}$ |
| :---: | :---: |
| $\mathbf{3 0}$ | $\varnothing 30 \mathrm{~mm}$ |
| 40 | $\varnothing 40 \mathrm{~mm}$ |
| $\mathbf{6 0}$ | $\varnothing 60 \mathrm{~mm}$ |
| $\mathbf{8 0}$ | $\varnothing 80 \mathrm{~mm}$ |


| 2 | Body material |
| :---: | :---: |
| Nil | Aluminum |


| Nil | Aluminum |
| :---: | :---: |
| $\mathbf{S}$ | Stainless steel |

3 Mounting plate

| Nil | None |
| :---: | :---: |
| T | Aluminum |
| TS | Stainless steel |

* The mounting plate is shipped together with the product but does not come assembled.
* The piping methods for types with and without a mounting plate are shown in Table 1 below.
(4) Attachment

| Nil | Without vibration suppression cover |
| :---: | :---: |
| $\mathbf{V}$ | With vibration suppression cover |

* It is not possible to additionally install or remove the vibration suppression cover.

Table 1. Piping

| Without mounting plate | Body ported (Requires no piping) |
| :--- | :--- |
|  | With mounting plate |
|  | Can be used by connecting the piping inside the mounting <br> surface with the supply port on the top surface of the product |
|  | Can be used by mounting a fitting on the supply port <br> on the top surface of the product and connecting |

## Coanda Grip Only / Part No.




Series compatible with secondary batteries


Fittings

| Nil | Straight |
| :---: | :--- |
| $\mathbf{L}$ | Elbow |

Connection tubing O.D.

| Symbol | Tubing O.D. |  | IRV10 | IRV20 |
| :---: | :---: | :---: | :---: | :---: |
| C06 | Metric | ø6 | - | $\bullet$ |
| C08 |  | $\varnothing 8$ | - | - |
| C10 |  | $\varnothing 10$ | - | $\bigcirc$ |



Accessory (2) [Supplied with product]

| Nil | None*1 |
| :---: | :---: |
| GN | Gauge nut assembly*2 |

*1 Two plug nuts are mounted on the gauge port. When the Rc1/8 port is required, please order the optional gauge nut assembly P601010-130 separately.
*2 One plug nut, one gauge nut (Rc1/8), and two clips are included.
The pressure gauge and digital pressure switch are not included.

Accessory (1) [Supplied with product]

| Nil | None |
| :---: | :--- |
| $\mathbf{B}$ | With bracket |

## Single sided connections 25A-IRV 20 A $\square \mathbf{C 0 8}$

Series compatible with secondary batteries


* This product cannot be used in environments containing chemical agents such as hydrofluoric acid, etc.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Membrane Air Dryer 25A-IDG Series Single Unit/Standard Dew Point $-40^{\circ} \mathrm{C} /-60^{\circ} \mathrm{C}$ Specifications 



## Bracket Assembly (Accessory) Part Nos.

| Part no. | Applicable model |
| :---: | :---: |
| 25A-BM64 | 25A-IDG30LA, 50LA |
| 25A-BM65 | 25A-IDG60LA, 75LA, 100LA |

* Some parts have dimensions that are different from those of the standard model. Refer to page 228 for details. Other specifications are the same as those of the standard model.

For details, refer to the Web Catalog.

* The assembly consists of a bracket and 2 mounting screws.


## Dimensions



## 25A-IDG60LA

Purge air for dew
25A-IDG75LA 25A-IDG100LA point indicator


| Model | A | $\mathbf{B}$ |
| :---: | :---: | :---: |
| 25A-IDG60LA | 426 | 367 |
| 25A-IDG75LA | 495 | 436 |
| 25A-IDG100LA | 560 | 501 |

(Maintenance space 100 mm or more)

Purge air discharge tubing


## Compressed Air Preparation Filter

## Line Filter/Mist Separator/Micro Mist Separator

## 25A-AFF/AM/AMD-D Series


*1 Option B is included in the package with the product but does not come assembled. The assembly consists of 2 types of the bracket and 2 mounting screws.
*2 For pipe thread type: NPT
This product is for overseas use only according to the new Measurement Act. (The SI unit type is provided for use in Japan.)
*3 ○: For pipe thread type: NPT only

## 25A-Bracket, Bowl Assembly/Part Nos.

| Description | Size 20 | Size 30 | Size 40 | Size 50 | Size 60 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Bracket assembly $^{* 1}$ | 25A-AF24P-070AS | 25A-AF34P-070AS | 25A-AF44P-070AS | 25A-AF54P-070AS |  |
| Bowl assembly | 25A-C2SF-D | 25A-C3SF-D | 25A-C4SF-D | 25A-AM54P-120AS | 25A-AM64P-120AS |

*1 The assembly consists of a bracket $A / B$ and 2 mounting screws.

* The 25A- series specifications and dimensions are the same as those of the standard model.


## Compressed Air Preparation Filter

Activated Carbon Filter
25A-AMK-D Series

How to Order


- Option/Semi-standard: Select one each for a to c. Option/Semi-standard symbol: When more than one specification is required, indicate in alphanumeric order. Example) 25A-AMK30-N03B-RZ-D
d Series compatible with secondary batteries

|  |  |  |  |  |  |  | (2) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Symbol | Description |  |  | dy siz |  |  |
|  |  |  |  |  | 20 | 30 | 40 | 50 | 60 |
| (1) |  | Filter type | AMK | Activated carbon filter | - | - | - | - | - |
|  |  |  | + |  |  |  |  |  |  |
|  |  |  | Nil | Rc | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| (3) |  | Thread type | N | NPT | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  | F | G | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  | + |  |  |  |  |  |  |
|  |  |  | 01 | 1/8 | $\bigcirc$ | - | - | - | - |
|  |  |  | 02 | 1/4 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | - |
| 4 |  | Port size | 03 | 3/8 | - | $\bigcirc$ | $\bigcirc$ | - | - |
|  |  | Port size | 04 | 1/2 | - | - | $\bigcirc$ | - | - |
|  |  |  | 06 | 3/4 | - | - | - | $\bigcirc$ | - |
|  |  |  | 10 | 1 | - | - | - | - | - |
|  |  |  | + |  |  |  |  |  |  |
| ᄃ |  |  | Nil | Without mounting option | $\bigcirc$ | $\bigcirc$ | - | - | - |
| O |  |  | B*1 | With bracket | - | - | - | - | - |
|  |  |  | + |  |  |  |  |  |  |
|  | b | Flow direction | Nil | Flow direction: Left to right | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| $\stackrel{\text { co }}{ }$ | b | Flow direction | R | Flow direction: Right to left | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| (6) |  |  | + |  |  |  |  |  |  |
| $\stackrel{\cdot}{\bar{\varepsilon}}$ | c | Pressure unit | Nil | Name plate and caution plate in SI units: $\mathrm{MPa} /{ }^{\circ} \mathrm{C}$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ |
|  | c | Pressure unit | Z*2 | Name plate and caution plate in imperial units: psi/ ${ }^{\circ} \mathrm{F}$ | O*3 | O*3 | O*3 | O*3 | ○*3 |

*1 Option B is included in the package with the product but does not come assembled. The assembly consists of 2 types of the bracket and 2 mounting screws.
*2 For pipe thread type: NPT
This product is for overseas use only according to the new Measurement Act. (The SI unit type is provided for use in Japan.)
*3 ○: For pipe thread type: NPT only

## 25A-Bracket, Bowl Assembly/Part Nos.

| Description | Size 20 | Size 30 | Size 40 | Size 50 | Size 60 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Bracket assembly*1 | 25A-AF24P-070AS | 25A-AF34P-070AS | 25A-AF44P-070AS | 25A-AF54P-070AS |  |
| Bowl assembly | 25A-C2SF-D-X401 | 25A-C3SK-D | 25A-C4SK-D | Equivalent to the <br> standard product | Equivalent to the <br> standard product |

[^52]* The 25A-series specifications and dimensions are the same as those of the standard model.
Option

| Symbol | Description |
| :---: | :---: |
| $\mathbf{N i l}$ | - |
| $\mathbf{J}^{* 4, * 5}$ | Drain guide 1/4 female threaded |
| $\mathbf{R}$ | IN-OUT reversal direction |
| $\mathbf{T}$ | With element service indicator |

*5 Drain piping and piping for a stop valve
such as ball valve are required.

| - Auto drain ${ }^{* 4}$ |
| :---: |
| Symbol |
| Nil |
| Drain cock (Without auto drain) |
| C |
| D |
| N.C. auto drain |

## Bracket Assembly Part Nos.*3

| Applicable model | Part no. |
| :---: | :---: |
| 25A-AFF2C | 25A-AM-BM101 |
| 25A-AFF4C | 25A-AM-BM102 |
| 25A-AFF8C | 25A-AM-BM103 |
| 25A-AFF11C | 25A-AM-BM104 |
| 25A-AFF22C | 25A-AM-BM105 |

2 mounting screws.

## 25A-AFF37B/75B

 valve are required.

| Port size • |  |  |  |
| :---: | :---: | :---: | :---: |
| Symbol | Size | Applicable body size |  |
|  |  | $37 B$ | $75 B$ |
| 10 | 1 |  | - |
| 14 | $11 / 2$ |  | $\bigcirc$ |
| 20 | 2 | - | $\bigcirc$ |

Bracket Assembly Part Nos. ${ }^{* 3}$

| Applicable model | Part no. |
| :---: | :---: |
| 25A-AFF37B | 25A-BM56 |
| 25A-AFF75B | 25A-BM57 |

*3 The assembly consists of a bracket and 2 mounting screws.

*1 When symbol " $B$ " is indicated, a bracket assembly with a part number shown in the left table is shipped together as an accessory but does not come assembled. ${ }^{*}{ }^{* 4}$
-Auto drain*4

| Symbol | Description |
| :---: | :---: |
| Nil | Drain cock (Without auto drain) *2 |
| D | N.O. auto drain (37B only) |

*2 Body size 75B is equipped with a ball valve (Rc 3/8 female threaded).
*4 Body size 37B: Only one drain exhaust method can be selected. The drain cock, N.O. auto drain and drain guide cannot be selected together.

* The 25A- series specifications and dimensions are the same as those of the standard model.


# Mist Separator <br> 25A-AM Series 



## 25A-AM650/850

-Option

| Symbol | Description |
| :---: | :---: |
| $\mathbf{N i l}$ | - |
| $\mathbf{J} * 4, * 5$ | Drain guide 1/4 female threaded (650 only) |
| $\mathbf{R}$ | IN-OUT reversal direction |
| $\mathbf{T}$ | With element service indicator |

Port size

| Symbol | Size | Applicable body size |  |
| :---: | :---: | :---: | :---: |
|  |  | 650 | 850 |
| 10 | 1 | - | - |
| 14 | $11 / 2$ |  | - |
| 20 | 2 | - | - |

Bracket Assembly Part Nos. ${ }^{* 3}$

| Applicable model | Part no. |
| :---: | :---: |
| 25A-AM650 | 25A-BM56 |
| 25A-AM850 | 25A-BM57 |

[^53]|  | Accessory |
| :---: | :---: |
| Symbol | Description |
| Nil | - |
| B | Bracket*1 |

*1 When symbol " $B$ " is indicated, a bracket assembly with a part number shown in the left table is shipped together as an accessory but does not come assembled.
*5 Drain piping and piping for a stop valve such as ball valve are required.
valve are required.
dAuto drain*4

| Symbol | Description |
| :---: | :---: |
| Nil | Drain cock (Without auto drain) 22 |
| $\mathbf{D}$ | N.O. auto drain (650 only) |

*2 Body size 850 is equipped with a ball valve (Rc 3/8 female threaded).
*4 Body size 650: Only one drain exhaust method can be selected. The drain cock, N.O. auto drain and drain guide cannot be selected together.

* The 25A- series specifications and dimensions are the same as those of the standard model.


# Micro Mist Separator 125A-AMD Series 

How to Order
25A-AMD150C to 25A-AMD550C


## 25A-AMD650/850



| Symbol | Size | Applicable body size |  |
| :---: | :---: | :---: | :---: |
|  |  | 650 | 850 |
| 10 | 1 |  | - |
| 14 | $11 / 2$ |  | $\bigcirc$ |
| 20 | 2 | - |  |

Bracket Assembly Part Nos.*3

| Applicable model | Part no. |
| :---: | :---: |
| 25A-AMD650 | 25A-BM56 |
| 25A-AMD850 | 25A-BM57 |

[^54]|  | Accessory |
| :---: | :---: |
| Symbol | Description |
| Nii | Bracket $^{* 1}$ |
| B |  |

*1 When symbol " B " is indicated, a bracket assembly with a part number shown in the left table is shipped together as an accessory but does not come assembled.
*5 Drain piping and piping for a stop valve such as ball valve are required.


| Symbol | Description |
| :---: | :---: |
| $\mathbf{N i l}$ | - |
| $\mathbf{J}^{* 4, * 5}$ | Drain guide 1/4 female threaded (650 only) |
| $\mathbf{R}$ | IN-OUT reversal direction |
| $\mathbf{T}$ | With element service indicator |

dAuto drain*4

| Symbol | Description |
| :---: | :---: |
| Nil | Drain cock (Without auto drain) *2 |
| $\mathbf{D}$ | N.O. auto drain (650 only) |

*2 Body size 850 is equipped with a ball valve (Rc $3 / 8$ female threaded).
*4 Body size 650: Only one drain exhaust method can be selected. The drain cock, N.O. auto drain and drain guide cannot be selected together.

# Micro Mist Separator with Pre-filter 

 25A-AMH Series

## 25A-AMH650/850



| Port size • |  |  |  |
| :---: | :---: | :---: | :---: |
| Symbol | Size | Applicable body size |  |
|  |  | 850 |  |
| 10 | 1 |  | - |
| 14 | $11 / 2$ |  | $\bigcirc$ |
| 20 | 2 | - |  |

Bracket Assembly Part Nos.*3

| Applicable model | Part no. |
| :---: | :---: |
| 25A-AMH650 | 25A-BM56 |
| 25A-AMH850 | 25A-BM57 |

*3 The assembly consists of a bracket and 2 mounting screws.

|  | Accessory |
| :---: | :---: |
| Symbol | Description |
| Nil | - |
| B | Bracket ${ }^{* 1}$ |

*1 When symbol " $B$ " is indicated, a bracket assembly with a part number shown in the left table is shipped together as an accessory but does not come assembled.
*5 Drain piping and piping for a stop valve such as ball valve are required.
Option

| Symbol | Description |
| :---: | :---: |
| $\mathbf{N i l}$ | - |
| $\mathbf{J}^{* 4, * 5}$ | Drain guide 1/4 female threaded (650 only) |
| $\mathbf{R}$ | IN-OUT reversal direction |
| $\mathbf{T}$ | With element service indicator |

dAuto drain*4

| Symbol | Description |
| :---: | :---: |
| Nil | Drain cock (Without auto drain) ${ }^{* 2}$ |
| D | N.O. auto drain $(650$ only) |

*2 Body size 850 is equipped with a ball valve (Rc $3 / 8$ female threaded).
*4 Body size 650: Only one drain exhaust method can be selected. The drain cock, N.O. auto drain and drain guide cannot be selected together.

* The 25A- series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catalog.


## Clean Air Filter

## SFD Series

## Hollow Fiber Element

Nominal filtration rating: $\mathbf{0 . 0 1} \mu \mathrm{m}$ (fitration efficiency $99.99 \%$ )
Initial pressure drop: $\mathbf{0 . 0 3} \mathrm{MPa}$ (at inet pressure 0.7 MPa , maximum flow)
Maximum operating pressure: $\mathbf{1 . 0} \mathrm{MPa}\left(a \mathrm{a} 20^{\circ} \mathrm{C}\right)$

## SFD100/110

SFD200
SFD101/102 Made to Order
Up to $100 \mathrm{~L} / \mathrm{min}(A N R) / U p$ to $120 \mathrm{~L} / \mathrm{min}(A N R) \quad U p$ to $500 \mathrm{~L} / \mathrm{min}(A N R) \quad U p$ to $100 \mathrm{~L} / \mathrm{min}(A N R)$


# Exhaust Cleaner for Clean Room 25A-AMP Series 



| Applicable model | Part no. |
| :---: | :---: |
| 25A-AMP220 | 25A-BM66 |
| 25A-AMP320 | 25A-BM67 |
| 25A-AMP420 | 25A-BM68 |

[^55]* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## Clean Exhaust Filter

## SFE Series

This filier enables diteci exhausiof elt thaclean rooml (Cleanlihess cliss (4\%: [S0146444) (E Based on sucs measuring onditions)
Air can be directly exhausted in a clean room only by mounting this product to the pneumatic equipment in the clean room.


Noise reduction
$30 \mathrm{~dB}(\mathrm{~A})$
or more

Piping to the relief port of the regulator

No need for piping for exhaust air and relief air. Reduces piping installation work and space.


## Modular Type Air Combination

$A C-D$ Series

## Modular connection units are available through the Simple Specials System.

Please contact your local sales representative for more details.

## Examples of Simple Specials

| Combination example 1 |
| :---: |
| Piping adapter |
| E300-04-D |
| Spacer with bracket |
| 25A-Y300T-D .......... |
| Air filter |
| 25A-AF30-03-D....... |
| T-spacer |
| Y310-03-D................... |
| Regulator |
| 25A-AR30-03-D ............... |
| Pressure relief 3-port valve |
| 25A-VHS30-03-D ................ |



```
Air filter
25A-AF30-03-D .................... 1 pc.
Spacer with bracket
25A-Y300T-D
2 pcs.
Mist separator
25A-AFM30-03-D
Micro mist separator
25A-AFD30-03-D .
    1 pc.
```



# Air Filter <br> 25A-AF20-D to 25A-AF60-D 

## How to Order




| 2 | Pipe thread type | $\mathbf{N i l}$ | Rc |
| :---: | :---: | :---: | :---: |
|  |  | NPT |  |
|  |  | G |  |



| 3 | 01 | $1 / 8$ |  |
| :---: | :---: | :---: | :---: |
|  | 02 | $1 / 4$ |  |
|  | 03 | $3 / 8$ |  |
|  | 04 | $1 / 2$ |  |
|  | 06 | $3 / 4$ |  |
|  |  | 10 | 1 |



| (4) 음 | Mounting | Nil | Without mounting option |
| :--- | :--- | :--- | :--- | :--- |
|  |  | With bracket |  |



|  | a | Flow direction | Nil | Flow direction: Left to right |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | R | Flow direction: Right to left |
|  | + |  |  |  |
|  | b | Unit | Nil | Unit on product label: $\mathrm{MPa},{ }^{\circ} \mathrm{C}$ |
|  | b | Unit | Z*2 | Unit on product label: psi, ${ }^{\circ} \mathrm{F}$ |


*1 Option B is included in the package with the product but does not come assembled. The assembly consists of 2 types of brackets and 2 mounting screws.
*2 $\bigcirc$ : For pipe thread type: NPT. This product is for overseas use only according to the New Measurement Act. (The SI unit type is provided for use in Japan.)

## Bracket, Bowl Assembly Part Nos. for the 25A- Series

| Option | Model |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 25A-AF20-D | 25A-AF30-D | 25A-AF40-D | 25A-AF40-06-D | 25A-AF50-D | 25A-AF60-D |
| Bracket assembly*1 | 25A-AF24P-070AS | 25A-AF34P-070AS | 25A-AF44P-070AS | 25A-AF49P-070AS | 25A-AF54P-070AS |  |
| Bowl assembly | 25A-C2SF-D | 25A-C3SF-D | 25A-C4SF-D |  |  |  |

[^56]* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## Air Filter

25A-AF20-A to 25A-AF60-A

How to Order




| Nil | Rc |
| :---: | :---: |
| $\mathbf{N}$ | NPT |
| $\mathbf{F}$ | G |



| Port size | 01 | $1 / 8$ |
| :---: | :---: | :---: | :---: |
|  | $\mathbf{0 2}$ | $1 / 4$ |
|  | $\mathbf{0 3}$ | $3 / 8$ |
|  | $\mathbf{0 4}$ | $1 / 2$ |
|  | 06 | $3 / 4$ |
|  | 10 | 1 |



| 4 | ․ㅡㅁ | Mounting | Nil | Without mounting option |
| :--- | :--- | :--- | :---: | :--- |
|  | $\mathbf{B}^{* 1}$ |  |  |  |


*1 A bracket is not assembled and supplied loose at the time of shipment. Including 2 mounting screws.
*2 $\bigcirc$ : For pipe thread type: NPT. This product is for overseas use only according to the New Measurement Act. (The SI unit type is provided for use in Japan.)

Bracket, Bowl Assembly Part Nos. for the 25A-Series

| Option Model | 25A-AF20-A | 25A-AF30-A | 25A-AF40-A | 25A-AF40-06-A | 25A-AF50-A <br> 25A-AF60-A |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Bracket assembly*1 | 25A-AF22P-050AS | 25A-AF32P-050AS | 25A-AF42P-050AS | 25A-AF42P-070AS | 25A-AF52P-050AS |  |
| Bowl assembly | 25A-C2SF-A | 25A-C3SF-A |  | 25A-C4SF-A |  |  |

[^57]* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

- 25A-AFM Series Nominal filtration rating: $0.3 \mu \mathrm{~m}$
- 25A-AFD Series Nominal filtration rating: $0.01 \mu \mathrm{~m}$

How to Order

-Series compatible with secondary batteries

- Semi-standard: Select one each for $\mathbf{a}$ and $\mathbf{b}$.
- Semi-standard symbol: When more than one specification is required, indicate in alphanumeric order. Example) 25A-AFM30-N03B-RZ-D


| 2 | Pipe thread type | Nil | Rc |
| :---: | :---: | :---: | :---: |
|  |  | $\mathbf{N}$ | NPT |
|  |  | $\mathbf{F}$ | G |



| 3 | 01 | $1 / 8$ |
| :---: | :---: | :---: | :---: |
|  | 02 | $1 / 4$ |
|  | 03 | $3 / 8$ |
|  | 03 | $1 / 2$ |
|  | $\mathbf{0 4}$ | $3 / 4$ |



| 4 | ․ㅡㅁ | Mounting | Nil | Without mounting option |
| :--- | :--- | :--- | :--- | :--- |
|  | $\mathbf{B}^{* 1}$ |  |  |  |



|  | a | Flow direction | Nil | Flow direction: Left to right | - | $\bigcirc$ | $\bigcirc$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | R | Flow direction: Right to left | $\bigcirc$ | - | - |
|  | + |  |  |  |  |  |  |
|  |  |  | Nil | Unit on product label: $\mathrm{MPa},{ }^{\circ} \mathrm{C}$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  | b | Unit | Z*2 | Unit on product label: psi, ${ }^{\circ} \mathrm{F}$ | O*2 | ○*2 | O*2 |

*1 Option B is included in the package with the product but does not come assembled. The assembly consists of 2 types of brackets and 2 mounting screws.
*2 $\bigcirc$ : For pipe thread type: NPT. This product is for overseas use only according to the New Measurement Act. (The SI unit type is provided for use in Japan.)

Bracket, Bowl Assembly Part Nos. for the 25A- Series

| Option |  | Model |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  |  | 25A-AFM30-D <br> 25A-AFD30-D | 25A-AFM40-D <br> 25A-AFD40-D | 25A-AFM40-06-D <br> 25A-AFD40-06-D |  |
|  |  | 25A-AF34P-070AS | 25A-AF44P-070AS | 25A-AF49P-070AS |  |
| Bowl assembly | 25A-C2SF-D | 25A-C3SF-D | 25A-C4SF-D |  |  |

[^58]* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

- 25A-AFM Series Nominal filtration rating: $0.3 \mu \mathrm{~m}$
- 25A-AFD Series Nominal filtration rating: $0.01 \mu \mathrm{~m}$


## How to Order


-Series compatible with secondary batteries

- Semi-standard: Select one each for $\mathbf{a}$ and $\mathbf{b}$.
- Semi-standard symbol: When more than one specification is required, indicate in alphanumeric order. Example) 25A-AFM30-N03B-RZ-A

|  |  | Symbol | Description |
| :---: | :---: | :---: | :---: |
| (2) | Pipe thread type | Nil | Rc |
|  |  | N | NPT |
|  |  | F | G |
| + |  |  |  |
| 3 | Port size | 01 | 1/8 |
|  |  | 02 | 1/4 |
|  |  | 03 | 3/8 |
|  |  | 04 | 1/2 |
|  |  | 06 | 3/4 |


| Body size |  |  |
| :---: | :---: | :---: |
|  |  |  |
| $\mathbf{2 0}$ | $\mathbf{3 0}$ | $\mathbf{4 0}$ |
| $\bullet$ | $\bullet$ | $\bullet$ |
| $\bullet$ | $\bullet$ | $\bullet$ |
| $\bullet$ | $\bullet$ | $\bullet$ |


| 4 | .흔 | Mounting | Nil | Without mounting option |
| :--- | :--- | :--- | :--- | :--- |
|  | $\mathbf{B}^{* 1}$ |  |  |  |



| 5 | a | Flow direction | Nil | Flow direction: Left to right |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | R | Flow direction: Right to left |
|  |  | + |  |  |
|  | b | Pressure unit | Nil | Name plate and caution plate for bowl in SI units: MPa |
|  |  |  | Z*2 | Name plate and caution plate for bowl in imperial units: $\mathrm{psi},{ }^{\circ}$ |


*1 A bracket is not assembled and supplied loose at the time of shipment. Including 2 mounting screws.
*2 O: For pipe thread type: NPT. This product is for overseas use only according to the New Measurement Act. (The SI unit type is provided for use in Japan.)

Bracket, Bowl Assembly Part Nos. for the 25A-Series

| Option Model | 25A-AFM20-A <br> 25A-AFD20-A | 25A-AFM30-A <br> 25A-AFD30-A | 25A-AFM40-A <br> 25A-AFD40-A | 25A-AFM40-06-A |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 25A-AF22P-050AS | 25A-AF32P-050AS | 25A-AF42P-050AS | 25A-AF42P-070AS |  |  |  |  |
| Bowl assembly | 25A-C2SF-A | 25A-C3SF-A | 25A-C4SF-A |  |  |  |  |  |

*1 The assembly consists of a bracket and 2 mounting screws.

Regulator

## 25A-AR20-D to 25A-AR60-D

## Regulator with Backflow Function

25A-AR20K-D to 25A-AR60K-D

## How to Order



- Semi-standard: Select one each for a to $\mathbf{e}$.
- Semi-standard symbol: When more than one specification is required, indicate in alphanumeric order. Example) 25A-AR30K-03B-1NR-D


## Series compatible with secondary batteries

*1 Set the inlet pressure to at least 0.05 MPa higher than the set pressure.
*2 Options B and H are not assembled and supplied loose at the time of shipment.
*3 The assembly consists of a bracket and set nuts.
*4 Pressure can be set higher than the specification pressure in some cases, but use pressure within the specification range.
*5 O: For pipe thread type: NPT. This product is for overseas use only according to the New Measurement Act. (The SI unit type is provided for use in Japan.)

## Bracket, Set Nut Part Nos. for the 25A- Series

| Option | Model |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 25A-AR20(K)-D | 25A-AR30(K)-D | 25A-AR40(K)-D | 25A-AR40(K)-06-D | 25A-AR50(K)-D | 25A-AR60(K)-D |
| Bracket assembly*1 | 25A-AR23P-270AS | 25A-AR33P-270AS | 25A-AR43P-270AS |  | 25A-AR54P-270AS |  |
| Set nut | AR23P-260S | AR33P-260S | AR43P-260S |  | -*2 |  |

*1 The assembly consists of a bracket and set nuts. For the 25A-AR50(K)-D and 25A-AR60(K)-D, the assembly consists of an $A$ and $B$ bracket and 2 mounting screws.
*2 Please contact SMC regarding the set nuts for the 25A-AR50(K)-D and 25A-AR60(K)-D.

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

Regulator

## 25A-AR20-B to 25A-AR60-B

Regulator with Backflow Function 25A-AR20K-B to 25A-AR60K-B

How to Order


Series compatible with secondary batteries


Bracket, Set Nut Part Nos. for the 25A- Series

| Option Model | 25A-AR20(K)-B | 25A-AR25(K)-B | 25A-AR30(K)-B | 25A-AR40(K)-B | 25A-AR50(K)-B <br> 25A-AR60(K)-B |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Bracket assembly*1 | 25A-AR23P-270AS | 25A-AR28P-270AS | 25A-AR33P-270AS | 25A-AR43P-270AS | 25A-AR52P-270AS*2 |
| Set nut | AR23P-260S | AR28P-260S | AR33P-260S | AR43P-260S | -*3 |

[^59]*2 The assembly consists of a bracket and 2 mounting screws.
*3 Please contact SMC regarding the set nuts for the 25A-AR50(K) and 25A-AR60(K).

[^60]Filter Regulator

## 25A-AW20-D to 25A-AW60-D

Filter Regulator with Backflow Function
25A-AW20K-D to 25A-AW60K-D

How to Order


- Semi-standard: Select one each for a to d.
- Semi-standard symbol: When more than one specification is required, indicate in alphanumeric order.
Example) 25A-AW30K-03B-1N-D


| 5 | Mounting | Nil | Without mounting option |
| :---: | :---: | :---: | :---: |
|  |  | B*3 | With bracket |
|  |  | H | With set nut (For panel fitting) |



|  | $\frac{0}{0}$$\frac{0}{0}$$\frac{1}{0}$$\frac{0}{\omega}$$\cdot \frac{1}{c}$$\omega$$\omega$ | a | Set pressure | Nil | 0.05 to 0.85 MPa setting |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 1*4 | 0.02 to 0.2 MPa setting |
|  |  | + |  |  |  |
|  |  | b | Exhaust mechanism | Nil | Relieving type |
|  |  |  |  | N | Non-relieving type |
|  |  | + |  |  |  |
|  |  | C | Flow direction | Nil | Flow direction: Left to right |
|  |  |  |  | R | Flow direction: Right to left |
|  |  | + |  |  |  |
|  |  | d | Unit | Nil | Unit on product label: $\mathrm{MPa}{ }^{\circ} \mathrm{C}$, Pressure gauge in SI units: MPa |
|  |  |  |  | Z*5 | Unit on product label: psi, ${ }^{\circ} \mathrm{F}$, Pressure gauge: MPa/psi dual scale |


*1 Set the inlet pressure to at least 0.05 MPa higher than the set pressure.
*2 Options B and H are not assembled and supplied loose at the time of shipment.
*3 The assembly consists of a bracket and set nuts
*4 Pressure can be set higher than the specification pressure in some cases, but use pressure within the specification range.
*5 ○: For pipe thread type: NPT. This product is for overseas use only according to the New Measurement Act.
(The SI unit type is provided for use in Japan.)

## Bracket, Set Nut, Bowl Assembly Part Nos. for the 25A- Series

| Option | Model |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | 25A-AW20(K)-D | 25A-AW30(K)-D | 25A-AW40(K)-D | 25A-AW40(K)-06-D | 25A-AW60(K)-D |
| Bracket assembly*1 | 25A-AW23P-270AS | 25A-AR33P-270AS | 25A-AR43P-270AS | 25A-AR54P-270AS |  |
| Set nut | AR23P-260S | AR33P-260S | AR43P-260S | - *2 |  |
| Bowl assembly | 25A-C2SF-D | 25A-C3SF-D | 25A-C4SF-D |  |  |

*1 The assembly consists of a bracket and set nuts.
*2 For the 25A-AW60(K)-D, the assembly consists of an A and B bracket and 2 mounting screws.
Please contact SMC regarding the set nuts for the 25A-AW60(K)-D.

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

Filter Regulator

## 25A-AW20-B to 25A-AW60-B

Filter Regulator with Backflow Function
25A-AW20K-B to 25A-AW60K-B

How to Order


- Semi-standard: Select one each for a to d
- Semi-standard symbol: When more than one specification is required, indicate in alphanumeric order.
Example) 25A-AW30K-03B-1N-B

|  |  |  |  | Symbol | Description | (1) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Body size |  |
|  |  |  |  | 20 |  | 30 | 40 | 60 |
| (2) | With backflow function |  |  |  | Nil | Without backflow function | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  |  | K | With backflow function | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| + |  |  |  |  |  |  |  |  |  |
| (3) | Pipe thread type |  |  |  | Nil | Rc | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  |  | N | NPT | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  |  | F | G | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| + |  |  |  |  |  |  |  |  |  |
| 4 | Port size |  |  | 01 | 1/8 | $\bigcirc$ | - | - | - |
|  |  |  |  | 02 | 1/4 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - |
|  |  |  |  | 03 | 3/8 | - | $\bigcirc$ | $\bigcirc$ | - |
|  |  |  |  | 04 | 1/2 | - | - | $\bigcirc$ | - |
|  |  |  |  | 06 | 3/4 | - | - | $\bigcirc$ | $\bigcirc$ |
|  |  |  |  | 10 | 1 | - | - | - | $\bigcirc$ |
| + |  |  |  |  |  |  |  |  |  |
| 55 <br>  |  | Mounting |  | Nil | Without mounting option | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  | B*2 | With bracket | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  | H | With set nut (For panel fitting) | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - |
| + |  |  |  |  |  |  |  |  |  |
| 6 |  |  |  |  |  | Nil | 0.05 to 0.85 MPa setting | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  |  | a | Set pressure | 1*3 | 0.02 to 0.2 MPa setting | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  | + |  |  |  |  |  |  |  |
|  |  |  | Exhaust | Nil | Relieving type | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  | mechanism | N | Non-relieving type | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  | + |  |  |  |  |  |  |  |
|  |  | c | Flow direction | Nil | Flow direction: Left to right | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  | c | Flow direction | R | Flow direction: Right to left | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  | + |  |  |  |  |  |  |  |
|  |  | d | Pressure unit | Nil | Name plate and caution plate for bowl in SI units: MPa | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  |  | Z*4 | Name plate and caution plate for bowl in imperial units: psi , ${ }^{\circ} \mathrm{F}$ | $\bigcirc * 4$ | $\bigcirc * 4$ | $\bigcirc * 4$ | $\bigcirc * 4$ |

*1 Options B and H are not assembled and supplied loose at the time of shipment.
*2 The assembly consists of a bracket and set nuts (25A-AW20(K) to 25A-AW40(K)). Including 2 mounting screws for the 25A-AW60(K).
*3 Pressure can be set higher than the specification pressure in some cases, but use pressure within the specification range.
*4 O : For pipe thread type: NPT. This product is for overseas use only according to the New Measurement Act. (The SI unit type is provided for use in Japan.)

Bracket, Set Nut, Bowl Assembly Part Nos. for the 25A- Series

| Option Model | 25A-AW20(K)-B | 25A-AW30(K)-B | 25A-AW40(K)-B | 25A-AW60(K)-B |
| :--- | :---: | :---: | :---: | :---: |
| Bracket assembly*1 | 25A-AW23P-270AS | 25A-AR33P-270AS | 25A-AR43P-270AS | 25A-AW62P-270AS*2 |
| Set nut | AR23P-260S | AR33P-260S | AR43P-260S | -*3 |
| Bowl assembly | 25A-C2SF-A | 25A-C3SF-A | 25A-C4SF-A |  |

*1 The assembly consists of a bracket and set nuts.
*2 The assembly consists of a bracket and 2 mounting screws.
*3 Please contact SMC regarding the set nuts for the 25A-AW60(K).

## Mist Separator Regulator

25A-AWM30, AWM40-D
Micro Mist Separator Regulator 25A-AWD30, AWD40-D

- 25A-AWM Series Nominal filtration rating: $0.3 \mu \mathrm{~m}$
- 25A-AWD Series Nominal filtration rating: $0.01 \mu \mathrm{~m}$

How to Order


- Semi-standard: Select one each for a to d. - Semi-standard symbol: When more than one specification is required, indicate in alphanumeric order.
Example) 25A-AWM30-F03B-1NR-D


| 1 |  |
| :---: | :---: |
| $\mathbf{\| c \|}$ Body size |  |
| $\mathbf{3 0}$ | $\mathbf{4 0}$ |
| $\bigcirc$ | 0 |
| $\bigcirc$ | 0 |
| $\boldsymbol{Q}$ | 0 |


| $\ominus$ | $\bullet$ |
| :---: | :---: |
| $\bigcirc$ | $\bullet$ |
| - | $\bullet$ |


| $\ominus$ | $\bullet$ |
| :---: | :---: |
| $\ominus$ | $\bullet$ |
| $\ominus$ | $\bullet$ |

*1 Options B and H are not assembled and supplied loose at the time of shipment.
*2 The assembly consists of a bracket and set nuts.
*3 Pressure can be set higher than the specification pressure in some cases, but use pressure within the specification range.
*4 For the pipe thread type: NPT
This product is for overseas use only according to the New Measurement Act.
(The SI unit type is provided for use in Japan.)
*5 O: For the pipe thread type: NPT only

## Bracket, Set Nut, Bowl Assembly Part Nos. for the 25A-Series

| Optional specifications | Model |  |
| :--- | :---: | :---: |
|  | 25A-AWM30-D <br> 25A-AWD30-D | 25A-AWM40-D |
|  | 25A-AWD40-D |  |$|$| Bracket assembly*1 | 25A-AR33P-270AS | 25A-AR43P-270AS |
| :--- | :---: | :---: | :---: |
| Set nut | AR33P-260S | AR43P-260S |
| Bowl assembly | 25A-C3SF-D | 25A-C4SF-D |

[^61]25A-AV200O-A to 25A-AV500O-A

## How to Order




* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

| Description | Series |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | 25A-AV2000-A | 25A-AV3000-A | 25A-AV4000-A | 25A-AV5000-A |  |
| Bracket assembly*1 | 25A-AV22P-210AS | 25A-AV32P-210AS | 25A-AV42P-210AS | 25A-AV52P-210AS |  |
| Pilot valve assembly | Refer to the How to Order below. |  |  |  |  |

*1 Bracket: 1 pc., Mounting screw: 2 pcs. (3 pcs. for the 25A-AV5000-A)

## How to Order Pilot Valve Assembly



|  |  |  | Symbol | Description | Applicable body size |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 20 |  | 30 | 40 | 50 |
| (1) | Body size |  |  | 2 | For the AV2000-A, AV3000-A | $\bigcirc$ | - | - | - |
|  |  |  | 4 | For the AV4000-A, AV5000-A | - | - | $\bigcirc$ | $\bigcirc$ |
| + |  |  |  |  |  |  |  |  |
| (2) | Rated coil voltage | $\begin{gathered} \text { AC } \\ (50 / 60 \mathrm{~Hz}) \end{gathered}$ | 1 | 100 VAC | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  | 2 | 200 VAC | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  | 3 | 110 VAC [115 VAC]*1 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  | 4 | 220 VAC [230 VAC]*1 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  | DC | 5 | 24 VDC | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  | 6 | 12 VDC | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| + |  |  |  |  |  |  |  |  |
| (3) | Electrical entry |  | G | Grommet (Lead wire length: 300 mm ) | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ |
|  |  |  | D | Type D (DIN terminal/With connector) | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  | Y | Type Y (DIN terminal/With connector)*2 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  | KO | M12 connector (Without cable) | ○*3 | ○*3 | ○*3 | ○*3 |
| + |  |  |  |  |  |  |  |  |
| (4) | Light/surge voltage suppressor |  | Nil | None | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  | Z | With light/surge voltage suppressor | $\bigcirc * 4$ | $\bigcirc * 4$ | ○*4 | ○*4 |
| + |  |  |  |  |  |  |  |  |
| $5$ | Manual override |  | Nil | Non-locking push type | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  | B | Push-turn locking slotted type | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  | C | Push-turn locking lever type | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

*1 The 110 VAC and the 115 VAC are interchangeable. The 220 VAC and the 230 VAC are interchangeable as well.
The allowable voltage fluctuation is $-15 \%$ to $+5 \%$ of the rated voltage for the 115 VAC or the 230 VAC.
*2 Type " $Y$ " is a DIN terminal in compliance with EN-175301-803C (former DIN43650C).
*3 When the electrical entry is "KO," only the DC specifications (5 or 6) can be selected for the rated coil voltage.
*4 When it is "KO," only the "With light/surge voltage suppressor" option can be selected.

## Precision Regulator


*1 Options are shipped together with the product but do not come assembled. B and H cannot be selected at the same time. The current bracket cannot be used for this product.
*2 The assembly consists of a bracket and set nuts
*3 See pressure unit table below.

| $>$ | Pipe thread type | Name plate in imperial units | Pressure switch in imperial units EA, EB, EC, ED | Sales*6 |
| :---: | :---: | :---: | :---: | :---: |
| Nil | Rc | MPa | Fixed SI unit | Japan, Overseas |
|  | NPT |  |  |  |
|  | G |  |  |  |
| Z*4 | Rc | - | - | Only overseas |
|  | NPT | psi | With unit conversion function (Initial value psi) |  |
|  | G | - | - |  |
| ZA*5 | Rc | MPa | With unit conversion function | Only overseas |
|  | NPT |  |  |  |
|  | G |  |  |  |

*4 For pipe thread type: NPT
*5 For options: EA, EB, EC, ED
*6 According to the new Measurement Law, only the SI unit type is provided for use in Japan.

* The 25A-series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Electro-Pneumatic Regulator 25A-ITV1000/2000/3000 Series 

How to Order


| $\mathbf{1}$ | Analog output 1 to 5 VDC |
| :---: | :---: |
| $\mathbf{2}$ | Switch output/NPN output |
| $\mathbf{3}$ | Switch output/PNP output |
| $\mathbf{4}$ | Analog output 4 to 20 mADC (Sink type) |
| Nil | None (For 4 points preset input) |

* The bracket is made with a special black chromium treatment. The bracket is shipped with the product.

Port size

| $\mathbf{1}$ | $1 / 8$ (1000 type) |
| :--- | :--- |
| $\mathbf{2}$ | $1 / 4$ (1000, 2000, 3000 type) |
| $\mathbf{3}$ | $3 / 8$ (2000, 3000 type) |
| $\mathbf{4}$ | $1 / 2$ (3000 type) |

Thread type

| Nil | Rc |
| :---: | :---: |
| $\mathbf{N}$ | NPT |
| $\mathbf{T}$ | NPTF |
| $\mathbf{F}$ | G |

[^62]* The 25A- series specifications and dimensions are the same as those of the standard model.


# Electronic Vacuum Regulator <br> RoHS 25A-ITV209 $\square$ Series 

How to Order


* Since the lead wires and electrical circuits are used, this product is not completely copper-free. Only the wetted parts are copper-free.
* Copper and zinc materials are used for solenoid valve coils, connector pins, and lead wire substrate.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Booster Regulator 25A-VBA Series 



Combination of Thread Type and Options

| Body size | Thread type | Option |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Nil | N | S | LN | LS |
| 10A | Nil | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  | F | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  | N | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | - |
|  | T | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | - |
| 20A | Nil | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |  |  |
|  | F | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |  |  |
|  | N | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |  |  |
|  | T | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |  |  |
| 40A | Nil | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |  |  |
|  | F | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |  |  |
|  | N | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |  |  |
|  | T | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |  |  |

## $\triangle$ Caution

- Not compatible with a low dew point
- VBA10A: Due to the close proximity of the IN and OUT sides of the gauge port and the handle of the booster regulator, a G43-10-01-X300/G46-SRB pressure gauge cannot be mounted as it will interfere with the handle.
VBA20A/40A: The G43-10-01-X300/G46-SRB pressure gauge cannot be mounted as the mounting pitch of the IN and OUT sides of the gauge port of the booster regulator is smaller than the diameter of the pressure gauge. In order to mount the pressure gauge, piping which does not cause any interference must be prepared separately.


## Air Tank Compatibility Chart

| $\underbrace{\substack{\text { Booster } \\ \text { regulator }}}_{\text {Air tank }}$ | 25A-VBA10A | 25A-VBA20A | 25A-VBA40A |
| :---: | :---: | :---: | :---: |
| 25A-VBAT05A1 | $\bigcirc$ | - | - |
| 25A-VBAT05S1 |  |  |  |
| 25A-VBAT10A1 | $\bigcirc$ | $\bigcirc$ | - |
| 25A-VBAT10S1 |  |  |  |
| 25A-VBAT20A1 | - | $\bigcirc$ | $\bigcirc$ |
| 25A-VBAT20S1 |  |  |  |
| 25A-VBAT38A1 | - | $\bigcirc$ | $\bigcirc$ |
| 25A-VBAT38S1 |  |  |  |

* Refer to page 251 for details on air tanks.

[^63]
# Air Tank 25A-VBAT Series 둥 

## How to Order

- For the booster regulator, use the 25A-VBA.
- It can be used alone as a tank.

Standard product
(For Japanese market)
The thread type for each port is Rc.

## $25 A-V B A T A O$ Tank internald capacity | Symbol | Internal capacity |
| :---: | :---: |
| 05 | 5 L |
| 10 | 10 L |
| 20 | 20 L |
| 38 | 38 L |



Material

| Symbol | Material |
| :---: | :---: |
| A | Carbon steel (SS400) |
| S | Stainless steel |

* Order drain valve (VBAT-V2) separately.
* Safety valve is not available as an option.
-Series compatible with secondary batteries


## $\triangle$ Caution

- When used as a single unit (not connected with a booster regulator) and pressurized at over 1 MPa at normal temperatures, the air tank falls under the scope of the "High
Pressure Gas Safety Act" in Japan.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Pressure Gauge for General Purpose G43-10-01-X300 

## G43-10-01-X300

Internal/external parts copper-free type

## Specifications

| Type | Back side thread |
| :---: | :---: |
| Thread type | R |
| Pressure range | $0-1.0 \mathrm{MPa}$ |
| Accuracy | $\pm 3 \%$ F.S |
| Weight | 82 g |

* The dimensions and shape may differ in some parts from those of the standard product.


## Dimensions

## G43-10-01-X300




## Pressure Gauge for Clean Regulator/ With Limit Indicator

 G46-SRBHow to Order


Note 1) This symbol must be used with Special specification "X30."
Note 2) Under the New Measurement Law, products for overseas use only (SI unit type for use in Japan)
Note 3) To use the pressure gauge with M5 (female thread), attach the joint when piping the tube. For combinations with the special specification products, please consult SMC separately.

For details, refer to the Web Catalog.

Speed Controller with One-touch Fitting Stainless Steel Type Push-lock Type Elbow Type/Universal Type

## AS-FG Series

In-line Type

## AS-FG Series

Stainless steel type (Stainless steel 303)

* The material can be visually identified by color of the release button.
Stainless steel type: White
* White is also used for inch size.



Speed Controller with Indicator Stainless Steel Series
Elbow Type/Universal Type

This product (standard product) is a secondary battery compatible product. For details on specifications and dimensions, refer to the Web Catalog.

## AS-FSG Series

In-line Type
AS-FSG Series

*1 Meter-out and meter-in types can be visually identified by color of the knob. Meter-out: Gray Meter-in: Light blue
11 Applicable tubing O.D.*1


Applicable tubing O.D.*1 Metric size Inch size

| $\mathbf{0 2}$ | $\varnothing 2$ | $\mathbf{0 1}$ | $\varnothing 1 / 8^{\prime \prime}$ |
| :---: | :---: | :---: | :---: |
| $\mathbf{2 3}$ | $\varnothing 3.2^{* 2}$ | $\mathbf{0 3}$ | $\varnothing 5 / 32^{\prime \prime}$ |
| $\mathbf{0 4}$ | $\varnothing 4$ | $\mathbf{0 7}$ | $\varnothing 1 / 4^{\prime \prime}$ |
| $\mathbf{0 6}$ | $\varnothing 6$ |  |  |

*1 For selecting applicable tubing O.D., refer to the "Model" on the Web Catalog. Metric size and inch size types can be visually identified by color of the release button. Stainless steel type: White White is also used for inch size. *2 Use ø1/8" tubing.

2 Port size

| M5 | M5 x 0.8 |
| :---: | :---: |
|  |  |

6 Control type*1

| $\mathbf{0}$ | Meter-out |
| :---: | :---: |
| $\mathbf{1}$ | Meter-in |



| M5 | M5 x 0.8 |
| :---: | :---: |

## (7) Stainless steel type

* Metric size and inch size types can be visually identified by color of the release button. Stainless steel type: White Metric size

| 23 | ø3.2*2 | 01 | ø1/8" |
| :---: | :---: | :---: | :---: |
| 04 | $\varnothing 4$ | 03 | ø5/32" |
| 06 | $\varnothing 6$ | 07 | ø1/4" |
| 08 | $\varnothing 8$ | 09 | ø5/16" |
| 10 | $\varnothing 10$ | 11 | ø3/8" |
| 12 | $\varnothing 12$ | 13 | ø1/2" |
| 16 | $\varnothing 16$ |  |  |

*1 For selecting applicable tubing O.D., refer to the "Model" on the Web Catalog
*2 Use ø1/8" tubing
Only the metric size is available for the G thread type.

| 4 | Body size |
| :---: | :---: |
| $\mathbf{2}$ | $1 / 8,1 / 4$ |
| $\mathbf{3}$ | $3 / 8$ |
| $\mathbf{4}$ | $1 / 2$ |

(5) Type

| $\mathbf{2}$ | Elbow |
| :---: | :---: |
| $\mathbf{3}$ | Universal |

## (9) Thread type

| $\mathbf{N i l}$ | R |
| :---: | :---: |
| $\mathbf{N}$ | NPT |
| $\mathbf{G}$ | $\mathbf{G}$ |

10 Port size

| $\mathbf{0 1}$ | $1 / 8$ |
| :---: | :---: |
| $\mathbf{0 2}$ | $1 / 4$ |
| $\mathbf{0 3}$ | $3 / 8$ |
| $\mathbf{0 4}$ | $1 / 2$ |

12 Seal method

| Nil | Without sealant |
| :---: | :---: |
| S | With sealant |



* Orientation of indicator direction is fixed when manufacturing, and cannot be changed by the user. In addition, the universal type is only available with $180^{\circ}$ setting.
* Face seal type is used for the G thread type.

Select "Nil/Without sealant".
Example) AS2201FSG-G01-06

How to Order



Body size

| $\mathbf{1 0 0}$ | M5 standard |
| :--- | :--- |
| $\mathbf{2 0 0}$ | $1 / 8$ standard |
| $\mathbf{2 0 5}$ | $1 / 4$ standard |
| $\mathbf{3 0 0}$ | $3 / 8$ standard |
| $\mathbf{4 0 0}$ | $1 / 2$ standard |

Stainless steel type (Stainless steel 303)

* The material can be visually identified by color of the release button.
Stainless steel type: White
* White is also used for inch size.


## Applicable tubing O.D."

## Metric size

| $\mathbf{2 3}$ | $\varnothing 3.2^{* 2}$ |
| :---: | :---: |
| $\mathbf{0 4}$ | $\varnothing 4$ |
| 06 | $\varnothing 6$ |


| $\mathbf{0 8}$ | $\varnothing 8$ |
| :---: | :---: |
| $\mathbf{1 0}$ | $\varnothing 10$ |
| $\mathbf{1 2}$ | $\varnothing 12$ |


| 01 | $\varnothing 1 / 8^{\prime \prime}$ | 09 $\varnothing 5 / 16^{\prime \prime}$  <br> 03 $\varnothing 5 / 32^{\prime \prime}$  <br> 07 $\varnothing 11$ $\varnothing 3 / 8^{\prime \prime}$ <br> $\mathbf{0 7}$ $\mathbf{1 3}$ $\varnothing 1 / 2^{\prime \prime}$ |
| :---: | :---: | :---: | :---: |

[^64]

## Clean Speed Controller with One-touch Fitting

AS-FPQ/AS-FPG Series


AS-FPQ: Brass (electroless nickel plated) and AS-FPG: Stainless steel 304 are now available as a series.

# Quick Exhaust Valve with One-touch Fittings <br> RoHS 25A-AQ240F/340F Series 

IN, OUT port applicable tubing O.D.

| 04 |
| :--- | :--- |

Series compatible with secondary batteries

Quick exhaust valve。

Body sized

| 3 |
| :--- |

-With One-touch fittings
In-line typed

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Check Valve with One-touch Fittings 25A-AKH Series 



* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Rotary One-touch Fittings <br> <br> 25A-KX Series 

 <br> <br> 25A-KX Series}

## High Speed Type

How to Order


Series compatible with secondary batteries
Rotary One-touch fittings ${ }^{\text {© }}$ High speed type

| Model |  |
| :---: | :---: |
| Symbol | Model |
| $\mathbf{H}$ | Male connector |
| $\mathbf{L}$ | Male elbow |

## 01S



| Symbol |  | Size |
| :---: | :---: | :---: |
|  | M5 | M5 x 0.8 |
|  | 01 S | R1/8 |
|  | 02S | R1/4 |
|  | G01 | G1/8 |
|  | G02 | G1/4 |

- Applicable tubing O.D.

| Symbol | Size |
| :---: | :---: |
| $\mathbf{0 4}$ | $\varnothing 4$ |
| $\mathbf{0 6}$ | $\varnothing 6$ |
| $\mathbf{0 8}$ | $\varnothing 8$ |
| $\mathbf{1 0}$ | $\varnothing 10$ |

## Applicable Tubing

| Tubing material | FEP, PFA, Nylon, Soft nylon, Polyurethane |
| :---: | :---: |
| Tubing O.D. | $\varnothing 4, \varnothing 6, \varnothing 8, \varnothing 10$ |

## KX Series



[^65]For details, refer to the Web Catalog.

## Rotary One-touch Fittings 25A-KX Series

## Male Connector: KXH (High speed)



| Appicable twbing O.D | Connection thread | Model |  | øD1 | øD2 | L | A | M | Min. <br> port <br> size | Effective area [ $\mathrm{mm}^{2}$ ] |  | $\begin{array}{\|l} \mid \text { Weight } \\ \text { [g] } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| [mm] |  |  |  |  |  |  |  |  |  | Nylon | Urethane |  |
| 6 | G1/8 | 25A-KXH06-G01 | 14 | 12.8 | 15.5 | 41.2 | 35.7 | 17 | 4 | 10.4 | 10.4 | 21 |
| 8 | G1/8 | 25A-KXH08-G01 | 17 | 15.2 | 18 | 46.1 | 40.6 | 18.5 | 6 | 26.1 | 18 | 30 |
| 10 | G1/4 | 25A-KXH10-G02 | 22 | 18.5 | 24.5 | 55.1 | 48.6 | 21 | 7 | 36.3 | 29.5 | 67 |



## Male Elbow: KXL (High speed)



## One-touch Fittings stainless Steel

## KQ2-G Series

Metal material: Stainless steel 303

Improved tube insertion/removal

*1: Tube removal strength is ensured to be equivalent to previous model.

Compact and lightweight

*1: Previous KG series model: Male elbow, applicable tubing O.D. ø6 connection thread R1/8

## Body type: total of 27 models



## Clean One-touch Fittings

## KP/KPQ/KPG Series



## Stainless Steel 316 Fittings

## KQG2 Series

## RoHS

## Compact and Light



## Material



Seal parts: Special FKM

Fluid temperature
-5 to $150^{\circ} \mathrm{C}$

Applicable tubing
Metric size, Inch size

Connection thread
M, R, Rc, UNF, NPTGrease-free/Can be used with steam.
© Certified to meet current Food Sanitation Law standards.
(Component materials have met apparatuses and container-packages standards.)


## Stainless Steel 316 Fittings

## KFG2 Series

## RoHS

## Compact and Light



Rubber material is not used.
(Except swivel elbow)

Fluid temperature

Applicable tubing
Metric size, Inch size

Connection thread


Appliable

## R, Rc, NPT

Miniature Fittings Stainless Steel 316
MS Series
Applicable Tubes: $\varnothing 3.2, \varnothing 4$, ø6 Connection Thread: M5, R 1/8

For use in corrosive environments Stainless steel 316
Compact piping space
Tube has a large retaining force. Hose nipple assures easy installation and removal.

## Line up various types

Possible for special tubing in the same direction. Accepts many types of plastic tubing
Hose nipple and hose elbow
Accepts nylon, soft nylon, and polyurethane tubing.


Made to Order
(Refer to the Web Catalog for details.)

## Hose nipple



Barb fitting


Specifications

| Applicable tubing <br> material | Nylon | Soft nylon |  | Polyurethane | PFA (1) | FEP (2) | Modified <br> PTFE | Wear resistant |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| polyurethane (4) |  |  |  |  |  |  |  |  |$|$

Note 1) , Note 2) , Note 3) , Note 4) Applicable only for hose nipple type.
Note 5) Barb fitting, barb elbow and barb tee are not compatible with water.
Note 6) Deionized water is not recommended for use as it may affect the material used in the fittings. In addition, it is known to degrade the water quality.
Note 7) As the universal nipple comes with grease, it cannot be used when $\mathrm{N}_{2}$ is used as clean, dry air.

## Principal Parts Material

| Material | Body | Stainless steel 316 |
| :--- | :--- | ---: |
|  | Gasket | PVC, Nylon 66, GF30\% |

# Rectangular Multi-connector 25A-KDM Series 



The 25A-series specifications and dimensions are the same as those of the standard model

For details, refer to the Web Catalog.

## S Couplers stainless steel type

KKA Series

## RoHS



Body material: Stainless steel 304
Seal material: Fluororubber (Special FKM)
Both plug and socket have an integral check valve.
Available with and without check valves depending on the operating conditions.
Reduces liquid dripping when the plug and socket are uncoupled.
Liquid dripping: 0.02 to $0.77 \mathrm{~cm}^{3}$ at each removal
Aeration: $\quad 0.1$ to $2.7 \mathrm{~cm}^{3}$ at each removal


## Non-greased specification (standard)

Allows smooth installation and removal even without grease

- O-ring: Fluorine coated
- Sliding parts of plug and socket: Fluorine coated is used.


## Fluid: Water, Air

Operating temperature range: $\mathbf{- 5}$ to $150^{\circ} \mathrm{C}$
Note) This product should not be used with steam.

## Nylon Tubing T



- General pneumatic tubing
- Max. operating pressure: 3.0 MPa (T0604, at $20^{\circ} \mathrm{C}$ )

| Series | Tubing O.D. |  | Color | Fluid |
| :---: | :---: | :---: | :---: | :---: |
|  | Metric size | Inch size |  |  |
| T/TIA | $\begin{gathered} ø 4, ~ ø 6, ~ ø 8, ~ \varnothing 10 \\ ø 12, \varnothing 16 \end{gathered}$ | $\begin{gathered} \text { ø1/8", ø3/16", ø1/4" } \\ ø 3 / 8^{\prime \prime}, ~ \varnothing 1 / 2^{\prime \prime} \end{gathered}$ | Black, White, Red, Blue, Yellow, Green | Air, Water Turbine oil class 1 (ISO VG32)* |

*1 Refer to the catalog for more information on using the product.

## Soft Nylon Tubing TS


*1 Refer to the catalog for more information on using the product.

## Polyurethane Tubing TU



- Max. operating pressure: $0.8 \mathrm{MPa}\left(\right.$ at $20^{\circ} \mathrm{C}$ )
- Made to Order

100 m reel/Longer length reel/20 m roll (-X4)
Compatible with the Food Sanitation Law/FDA (U.S. Food and Drug Administration)/
Complies with the EU No 10/2011 dissolution test

| Series | Tubing O.D. |  | Color | Fluid |
| :---: | :---: | :---: | :---: | :---: |
|  | Metric size | Inch size |  |  |
| TU/TIUB | $\varnothing 2, \varnothing 4, \varnothing 6, \varnothing 8$ | $\varnothing 1 / 8^{\prime \prime}, \varnothing 3 / 16^{\prime \prime}, \varnothing 1 / 4^{\prime \prime}$ |  |  |
|  | $\varnothing 10, \varnothing 12, \varnothing 16$ | $\varnothing 3 / 8^{\prime \prime}, \varnothing 1 / 2^{\prime \prime}$ | Black, White, Red, Blue, Yellow, Green, <br> Clear, Orange, and more (Total 29 colors) | Air, Water |

## Antistatic Soft Nylon Tubing TAS



- Max. operating pressure: 1.2 $\mathrm{MPa}\left(\right.$ at $20^{\circ} \mathrm{C}$ )
- For preventing static electricity

| Series | Tubing O.D. | Color | Fluid |
| :---: | :---: | :---: | :---: |
|  | Metric size |  |  |
| TAS | $\varnothing 3.2, \varnothing 4, \varnothing 6, \varnothing 8, \varnothing 10, \varnothing 12$ | Black | Air |

## Antistatic Polyurethane Tubing TAU

- Max. operating pressure: $0.9 \mathrm{MPa}\left(\right.$ at $20^{\circ} \mathrm{C}$ )

- For preventing static electricity

| Series | Tubing O.D. | Color | Fluid |
| :---: | :---: | :---: | :---: |
|  | Metric size |  |  |
| TAU | $\varnothing 3.2, \varnothing 4, \varnothing 6, \varnothing 8, \varnothing 10, \varnothing 12$ | Black | A |

## Fluoropolymer Tubing TL/T||L

- Max. operating pressure: $1.0 \mathrm{MPa}\left(\right.$ at $20^{\circ} \mathrm{C}$ )
- Operating temperature (fixed usage): -65 to $260^{\circ} \mathrm{C}$
- Food Sanitation Law compliant
- Complies with the FDA (Food and Drug Administration) § 177.1550 dissolution test

| Series | Tubing O.D. |  | Color |
| :---: | :---: | :---: | :---: |
|  | Metric size | Inch size |  |
| TL/TIL | $\varnothing 4, \varnothing 6, \varnothing 8, \varnothing 10$ | $\varnothing 1 / 8^{\prime \prime}, \varnothing 3 / 16^{\prime \prime}, \varnothing 1 / 4^{\prime \prime}$ | Translucent |

## FEP Tubing (Fluoropolymer) TH/T||H



## Soft Fluoropolymer Tubing TD/TID

- Max. operating pressure: $1.6 \mathrm{MPa}\left(\text { at } 20^{\circ} \mathrm{C}\right)^{* 1}$
- Food Sanitation Law compliant
- Complies with the FDA (Food and Drug Administration) § 177.1550 dissolution test
- Operating temperature (fixed usage): Air, Inert gas: -65 to $260^{\circ} \mathrm{C}$

Water: 0 to $100^{\circ} \mathrm{C}$ (No freezing)
*1 This may vary according to size.

| Series | Tubing O.D. |  | Color |
| :---: | :---: | :---: | :---: |
|  | Metric size | Inch size |  |
| TD/TID | $\varnothing 4, \varnothing 6, \varnothing 8, \varnothing 10, \varnothing 12$ | $\varnothing 1 / 8^{\prime \prime}, \varnothing 3 / 16^{\prime \prime}, \varnothing 1 / 4^{\prime \prime}, \varnothing 3 / 8^{\prime \prime}, \varnothing 1 / 2^{\prime \prime}$ | Translucent |

## Soft Polyolefin Tubing TPS

- Max. operating pressure (at $20^{\circ} \mathrm{C}$ ): 0.7 MPa ( $\varnothing 4$ to $\varnothing 12$ )
- Complies with the FDA (Food and Drug Administration) § 175.300
dissolution test (White, Blue, Yellow only)

| Series | Applicable tubing O.D. | Color | Fluid |
| :---: | :---: | :---: | :---: |
| TPS | $\varnothing 4, \varnothing 6, \varnothing 8, \varnothing 10, \varnothing 12$ | Black, White, Red, Blue, Yellow, Green | Air, Water, etc. |

## Moisture Control Tube IDK



- Prevents condensation in piping for small cylinders/air grippers
- Diffuses water vapor in the piping to the outside
- All you have to do is install the moisture control tube. Additional power supplies and works are not necessary.

| Series | O.D./I.D. $[\mathrm{mm}]$ | Effective length [mm] | Applicable fittings |
| :---: | :---: | :---: | :---: |
| IDK02 (Linear shape) | $2 / 1.2$ | 100 | KQ2 |
| IDK04 (Linear shape) | $4 / 2.5$ |  | KQ2 |
| IDK06 (Linear shape) | $6 / 4$ |  | KQ2 |
| IDK04-100-C1 (Coil shape) | $4 / 2.5$ | 100 | KQ2 |

# 1 Output (E UK c:Nus <br> <br> 3-Screen Display High-Precision <br> <br> 3-Screen Display High-Precision Digital Pressure Switch 


secondary batteries

| 1 Rated pressure range |  |
| :---: | :---: |
| ZSE20 | 0 to -101 kPa |
| ZSE20F | -100 to 100 kPa |


| 2 Output specification |  |
| :---: | :---: |
| Symbol | Description |
| $\mathbf{N}$ | NPN open collector 1 output |
| P | PNP open collector 1 output |

(3) Unit specification

| Symbol | Description |
| :---: | :--- |
| $\mathbf{N i l}$ | Units selection function*1 |
| $\mathbf{M}$ | Sl unit only*2 |
| $\mathbf{P}$ | Units selection function (Initial value psi$)^{* 1}$ |

*1 Under the New Measurement Act, switches with the units selection function are not permitted for use in Japan.
*2 Fixed unit: $\mathrm{kPa}, \mathrm{MPa}$



Option 3

| Symbol | Operation manual*1 | Calibration certificate* ${ }^{* 1}$ |
| :---: | :---: | :---: |
| Nil | 0 | - |
| $\mathbf{Y}$ | - | - |
| $\mathbf{K}$ | - | $O$ |
| $\mathbf{T}$ | - | $O$ |

*1 All texts are in both English and Japanese.


## Options/Part Nos.

When only optional parts are required, order with the part numbers listed below.

| Description | Part no. | Note |
| :--- | :---: | :---: |
| Panel mount adapter | ZS-46-B | - |
| Panel mount adapter + Front protection cover | ZS-46-D | - |
| Lead wire with connector | ZS-46-3L | 3-core, 2 m, Non-waterproof <br> (Without waterproof cover) |
| Front protection cover | ZS-27-01 | - |

* The 25A- series specifications and dimensions are the same as those of the standard model.


# 2 Outputs + Analog Output (Voltage/Current) <br> C (EG c~․․ 3-Screen Display High-Precision Digital Pressure Switch 


secondary batteries


| 1 Rated pressure range |  |
| :--- | :---: |
| ZSE20A | 0 to -101 kPa |
| ZSE20AF | -100 to 100 kPa |


*1 Can be switched to auto-shift or copy function
3 Unit specification

| Symbol | Description |
| :---: | :---: |
| Nil | Units selection function*1 |
| $\mathbf{M}$ | SI unit only*2 |
| $\mathbf{P}$ | Units selection function (Initial value psi)** |

*1 Under the New Measurement Act, switches with the units selection function are not permitted for use in Japan.
*2 Fixed unit: $\mathrm{kPa}, \mathrm{MPa}$



Option 3

| Symbol | Operation manual*1 | Calibration certificate*1 |
| :---: | :---: | :---: |
| Nil | 0 | - |
| $\mathbf{Y}$ | - | - |
| $\mathbf{K}$ | 0 | 0 |
| $\mathbf{T}$ | - | 0 |

*1 All texts are in both English and Japanese.

## Options/Part Nos.

When only optional parts are required, order with the part numbers listed below.

| Description | Part no. | Note |
| :--- | :---: | :---: |
| Panel mount adapter | ZS-46-B | - |
| Panel mount adapter + Front protection cover | ZS-46-D | - |
| Lead wire with connector | ZS-46-5L | 5-core, 2 m, Non-waterproof <br> (Without waterproof cover) |
| Front protection cover | ZS-27-01 | - |

* The 25A- series specifications and dimensions are the same as those of the standard model.


## 2 Outputs + Analog Output (Voltage/Current) © Ⓚ c © in 3-Screen Display High-Precision Digital Pressure Switch



Series compatible with
secondary batteries

| 1 Rated pressure range |  |
| :--- | :--- |
| ZSE20B | 0 to -101 kPa |


| ZSE20B | 0 to -101 kPa |
| :--- | :---: |
| ZSE20BF | -100 to 100 kPa |


*1 Can be switched to auto-shift or copy function
3 Unit specification

| Symbol | Description |
| :---: | :--- |
| $\mathbf{N i l}$ | Units selection function*1 |
| $\mathbf{M}$ | SI unit only*2 |
| $\mathbf{P}$ | Units selection function (Initial value psi)*1 |

*1 Under the New Measurement Act, switches with the units selection function are not permitted for use in Japan.
*2 Fixed unit: $\mathrm{kPa}, \mathrm{MPa}$
Piping specification

| Symbol | Description |
| :---: | :---: |
|  | M5 female thread |
| M5 |  |
|  |  |



Option 3

| Symbol | Operation manual*1 | Calibration certificate*1 |
| :---: | :---: | :---: |
| Nil | 0 | - |
| $\mathbf{Y}$ | - | - |
| $\mathbf{K}$ | 0 | 0 |
| $\mathbf{T}$ | - | 0 |

*1 All texts are in both English and Japanese.

## Options/Part Nos.

When only optional parts are required, order with the part numbers listed below.

| Description | Part no. | Note |
| :--- | :---: | :---: |
| Panel mount adapter | ZS-46-B | - |
| Panel mount adapter + Front protection cover | ZS-46-D | - |
| Lead wire with connector | ZS-46-5F | 5-core, 2 m, Waterproof <br> (With waterproof cover) |
| Front protection cover | ZS-27-01 | - |



* The 25A- series specifications and dimensions are the same as those of the standard model.


## 2 Outputs + Analog Output (Voltage/Current) (E UK c © 3-Screen Display High-Precision Digital Pressure Switch for General Fluids $25 A-Z S E 2 O C(F / / S E 2 O C(H)$ Series


secondary batteries

| 1 | Rated pressure range |
| :--- | :---: |
| ZSE20C | 0 to -101 kPa |
| ZSE20CF | -100 to 100 kPa |


*1 Can be switched to auto-shift or copy function

3 Unit specification

| Symbol | Description |
| :---: | :--- |
| Nil | Units selection function*11 |
| $\mathbf{M}$ | SI unit tonly*2 |
| $\mathbf{P}$ | Units selection function (Initial value psi)*1 |

*1 Under the New Measurement Act, switches with the units selection function are not permitted for use in Japan.
*2 Fixed unit: kPa , MPa



Option 3

| Symbol | Operation manual*1 | Calibration certificate*1 |
| :---: | :---: | :---: |
| $\mathbf{N i l}$ | 0 | - |
| $\mathbf{Y}$ | - | - |
| $\mathbf{K}$ | 0 | 0 |
| $\mathbf{T}$ | - | 0 |

*1 All texts are in both English and Japanese.

Options/Part Nos.
When only optional parts are required, order with the part numbers listed below.

| Description | Part no. | Note |
| :--- | :---: | :---: |
| Panel mount adapter | ZS-46-B | Rear ported |
| Panel mount adapter + Front protection cover | ZS-46-D | Rear ported |
| Lead wire with connector | ZS-46-5F | 5-core, 2 m, Waterproof <br> (With waterproof cover) |
| Front protection cover | ZS-27-01 | Rear ported |

* The 25A- series specifications and dimensions are the same as those of the standard model.


# 2-Color Display <br> C(E) CK cinus 

Digital Flow Switch 25A-PF2M7 Series


## Output specification

| Symbol | OUT1 | OUT2 |
| :---: | :---: | :---: |
| $\mathbf{A}$ | NPN | NPN |
| $\mathbf{B}$ | PNP | PNP |
| $\mathbf{C}$ | NPN | Analog 1 to $5 \mathrm{~V} \Leftrightarrow$ Analog 0 to $10 \mathrm{~V}^{* 1}$ |
| D | NPN | Analog 4 to 20 mA |
| E | PNP | Analog 1 to $5 \mathrm{~V} \Leftrightarrow$ Analog 0 to $10 \mathrm{~V}^{* 1}$ |
| F | PNP | Analog 4 to 20 mA |

*1 1 to 5 V or 0 to 10 V can be selected by pressing the button. The default setting is 1 to 5 V .

## (5) Option 1

W
Lead wire with connector (2 m)
Connector cover (Silicone rubber)

## 6 Unit specification

| $\mathbf{M}$ | SI unit only*2 |
| :---: | :---: |
| $\mathbf{N i l}$ | Unit selection function*3 |

*2 Fixed unit: Instantaneous flow: L/min Accumulated flow: L
*3 This product is for overseas use only. (The SI unit type is provided for use in Japan in accordance with the New
Measurement Act.)
The unit can be changed.
Instantaneous flow: $\mathrm{L} / \mathrm{min} \Leftrightarrow \mathrm{cfm}$
Accumulated flow: $\mathrm{L} \Leftrightarrow \mathrm{ft}^{3}$

## Calibration certificate*4

| Nil | None |
| :---: | :---: |
| $\mathbf{A}$ | Yes |

*4 Made to order
The certificate is in both

English and Japanese.

7 Option 2

| Nil | R | T |
| :---: | :--- | :--- |
|  | Bracket (For the type without a flow <br> adjustment valve) <br> 25A-ZS-33-M | Panel mount adapter (For the type without a <br> flow adjustment valve) <br> ZS-33-2J |
| Without <br> bracket |  |  |

[^66]* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.


## Option 2

| Nil | R | T |
| :---: | :--- | :--- |
|  | Bracket (For the type without a <br> flow adjustment valve) <br> 25A-ZS-33-M | Panel mount adapter (For the type <br> without a flow adjustment valve) <br> ZS-33-2J |
| Without |  |  |
| bracket |  |  |

* Options are shipped together with the product but do not come assembled.

* The 25A- series specifications and dimensions are the same as those of the standard model.


# 2-Color Display Digital Flow Switch 



[^67]* Digital flow switch with flow adjustment valve is not standard product. It can be supplied as Made-to-Order separately.

For details, refer to the Web Catalog.

## Digital Flow Switch

range (Flow rate range)

| $\mathbf{1 0}$ | 0.2 to $10(5) \mathrm{L} / \mathrm{min}$ |
| :--- | :--- |
| $\mathbf{2 5}$ | 0.5 to $25(12.5) \mathrm{L} / \mathrm{min}$ |
| $\mathbf{5 0}$ | 1 to $50(25) \mathrm{L} / \mathrm{min}$ |
| $\mathbf{1 1}$ | 2 to $100(50) \mathrm{L} / \mathrm{min}$ |



Option 26

- Port size

| Symbol | Description | Flow rate range |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\bullet$ | 25 | 50 | 11 |
| $\mathbf{0 1}$ | Rc1/4 |  | $\bullet$ | $\bullet$ |  |
| $\mathbf{0 2}$ | NPT1/8 | $\bullet$ | $\bullet$ | $\bullet$ |  |
| N01 | NPT1/4 |  |  |  | $\bullet$ |
| N02 | G1/8*1 | $\bullet$ | $\bullet$ | $\bullet$ |  |
| F01 | G1/4*1 |  |  |  | $\bullet$ |
| F02 | $\varnothing 6$ One-touch fitting | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |
| C6 | C8 | $\varnothing 8$ (5/16") One-touch fitting |  | $\bullet$ | $\bullet$ |

*1 ISO 228-1 compliant

- Options are shipped together with the product but do not come assembled.
Piping entry direction

| Nil | Straight |
| :---: | :---: |
| $\mathbf{L}$ | Bottom |

Output specification

| No. | Description | Applicable display unit |
| :---: | :---: | :---: |
| $\mathbf{1}$ | Analog output (1 to 5 V) | $25 A-$ PFM30 $\square$ |
| $\mathbf{2}$ | Analog output (4 to 20 mA ) | $25 A-$ PFM31 $\square$ |



| Nil | R | T |
| :---: | :---: | :---: |
| None | Bracket <br> (For the type without a flow adjustment valve) 25A-ZS-33-M | Panel mount adapter <br> (For the type without a flow adjustment valve) <br> ZS-33-J |

Piping Variations

|  | With One-touch fittings (C6, C8) |  | Female thread (01, 02, N01, N02, F01, F02) |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Straight (Nil) | Bottom (L) | Straight (Nil) | Bottom (L) |
| Without flow adjustment valve (Nil) |  |  |  |  |

[^68]
## For 25A-PFM5

# Flow Sensor Monitor <br> <br> 25A-PFM3 Series 

 <br> <br> 25A-PFM3 Series}

RoHS


| Description | Part no. | Note |
| :--- | :---: | :---: |
| Power supply/Output connector (2 m) | ZS-28-A |  |
| Sensor connector | ZS-28-C-1 | 1 pc. |
| Panel mount adapter | ZS-46-B |  |
| Panel mount adapter + <br> Front protective cover | ZS-46-D |  |

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## Digital Flow Switch

25A-PFMB7 Series

How to Order


|  | OUT1 | OUT2 | Applicable monitor unit model |
| :---: | :---: | :---: | :---: |
| $\mathbf{A}$ | NPN | NPN | - |
| $\mathbf{B}$ | PNP | PNP | - |
| $\mathbf{C}$ | NPN | Analog 1 to 5 V | PFG300 series |
| $\mathbf{D}$ | NPN | Analog 4 to 20 mA | PFG310 series |
| $\mathbf{E}^{* 1}$ | PNP | Analog 1 to 5 V | PFG300 series |
| $\mathbf{F}^{* 1}$ | PNP | Analog 4 to 20 mA | PFG310 series |
| $\mathbf{G}^{* 1}$ | NPN | External input $* 2$ | - |
| $\mathbf{H}^{* 1}$ | PNP | External input $* 2$ | - |

*1 Made to order
*2 Accumulated flow value, peak/bottom flow value can be reset by external signal input.

Option 1.

| W |
| :---: |
| Lead wire with connector (2 m) |
| + |
| Rubber cover for connector (Silicone rubber) |

Rubber cover for connector (Silicone rubber)

* Options are shipped together with the product but do not come assembled. When only optional parts are required, refer to Option 2/Part Nos. below.
- Unit specification

| $\mathbf{M}$ | SI unit only*1 |
| :---: | :---: |
| $\mathbf{N i l}$ | Units selection function*2 |

*1 Fixed unit: Instantaneous flow: L/min
Accumulated flow: L
*2 This product is for overseas use only according to the New Measurement Act. (The SI unit type is provided for use in Japan.)
The unit can be changed. Instantaneous flow: $L / m i n \Leftrightarrow c f m$ Accumulated flow: $\mathrm{L} \Leftrightarrow \mathrm{ft}^{3}$

Option 1/Part Nos.

| Option | Part no. | Qty. | Note |
| :--- | :---: | :---: | :---: |
| Lead wire with connector | ZS-33-D | 1 | Lead wire: 2 m |
| Rubber cover (Silicone rubber) | ZS-33-F | 1 | For connector |

Option 2/Part Nos.

| Option | Part no. | Qty. | Note |
| :--- | :---: | :---: | :--- |
| Bracket (for PFMB7201) | 25A-ZS-33-M | 1 | With 2 tapping screws $(3 \times 6)$ |
| Panel mount adapter (for PFMB7201) | ZS-33-J | 1 |  |
| Bracket (for PFMB7501/7102) | 25A-ZS-42-C | 1 | With 4 tapping screws $(3 \times 6)$ |
| Bracket (for PFMB7202) | 25A-ZS-42-D | 1 | With 4 tapping screws $(3 \times 6)$ |

[^69]
## Body Ported Type

## 3-Color Display Digital Flow Switch <br> 25A-PF3A7 $\square$ H Series

How to Order

*2 Analog output or external input can be selected by pressing the buttons. Analog output is set as default setting.
*3 1 to 5 V or 0 to 10 V can be selected by pressing the button. The default setting is 1 to 5 V .
*4 The accumulated value, peak value, and bottom value can be reset.

Option/Part No.
When only optional parts are required, order with the part number listed below.

| Part no. | Option | Note |
| :---: | :---: | :---: |
| $\mathbf{9 0 - Z S - 3 7 - A - X 2 5 8 ~}$ | Lead wire with M12 connector | Length: 3 m |

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## Body Ported Type @ IO-Link

3-Color Display Digital Flow Switch



Options/Part Nos.
When only optional parts are required, order with the part numbers listed below.

| Part no. | Option | Note |
| :---: | :---: | :---: |
| 90-ZS-37-A-X258 | Lead wire with M12 connector | Length: 3 m |

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# 3-Color Display Digital Flow Switch for Water <br> RoHS 25A-PF3W7-Z Series 

How to Order


Port size

| Symbol | Port <br> size | Rated flow range |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\mathbf{2 0}$ | $\mathbf{4 0}$ | $\mathbf{1 1}$ |  |
| $\mathbf{0 3}$ |  | $\bullet$ |  | - | - |
| $\mathbf{0 4}$ |  | - |  | $\bullet$ | - |
| $\mathbf{0 6}$ |  | - | - |  | $\bullet$ |
| $\mathbf{1 0}$ | $1 / 1$ | - | - | - | $\bullet$ |

Lead wire (Option)

| Nil |  |
| :--- | :--- |
| With lead wire with M8 <br> connector $(3 \mathrm{~m})$ | Without lead wire with M8 <br> connector |


*1 ISO 228 compliant

* $100 \mathrm{~L} / \mathrm{min}$ type with flow adjustment valve is not available.
* The flow adjustment valve of this product is not suitable for applications which require constant adjustment of flow rate.
6 Output specification/Temperature sensor

| Symbol | OUT1 | OUT2 |  |  | Temperature sensor |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Flow rate | Flow rate |  | Temperature |  |
| A | NPN | NPN |  | - | None |
| B | PNP | PNP |  | - |  |
| C | NPN | Analog 1 to 5 V |  | - |  |
| D | NPN | Analog 4 to 20 mA |  | - |  |
| E | PNP | Analog 1 to 5 V |  | - |  |
| F | PNP | Analog 4 to 20 mA |  | - |  |
| G | NPN | External input*1 |  | - |  |
| H | PNP | External input*1 |  | - |  |
| AT | NPN | (NPN) | $\stackrel{* 2}{\longleftrightarrow}$ | NPN | With temperature sensor |
| BT | PNP | (PNP) | $\stackrel{* 2}{\longleftrightarrow}$ | PNP |  |
| CT | NPN | (Analog 1 to 5 V ) | $\stackrel{* 2}{\longleftrightarrow}$ | Analog 1 to 5 V |  |
| DT | NPN | (Analog 4 to 20 mA ) | $\stackrel{\text { *2 }}{\stackrel{\text { a }}{ }}$ | Analog 4 to 20 mA |  |
| ET | PNP | (Analog 1 to 5 V ) | $\stackrel{\text { *2 }}{\stackrel{\text { d }}{ }}$ | Analog 1 to 5 V |  |
| FT | PNP | (Analog 4 to 20 mA ) | $\stackrel{* 2}{\longleftrightarrow}$ | Analog 4 to 20 mA |  |

*1 External input: The accumulated value, peak value, and bottom value can be reset.
*2 For units with temperature sensor, only OUT2 can be set as either temperature output or flow rate output. Setting when shipped is for temperature output.
8 Integrated display/Unit specification

| Symbol | Instantaneous flow | Accumulated flow | Temperature |
| :---: | :---: | :---: | :---: |
| $\mathbf{~ M}$ | $\mathrm{L} / \mathrm{min}$ | L | ${ }^{\circ} \mathrm{C}$ |
| $\mathbf{G}$ | $\mathrm{gal} / \mathrm{min}$ | gal | ${ }^{\circ} \mathrm{C}$ |
| $\mathbf{F}$ | $\mathrm{gal} / \mathrm{min}$ | gal | ${ }^{\circ} \mathrm{F}$ |
| $\mathbf{J}$ | $\mathrm{L} / \mathrm{min}$ | L | ${ }^{\circ} \mathrm{F}$ |

* Under the New Measurement Act, units other than SI (symbol " M ") cannot be used in Japan.
* G, F, J: Made to order

Reference: $1[\mathrm{~L} / \mathrm{min}] \leftrightarrow 0.2642[\mathrm{gal} / \mathrm{min}]$

$$
\begin{aligned}
& 1[\mathrm{gal} / \mathrm{min}] \leftrightarrow 3.785[\mathrm{~L} / \mathrm{min}] \\
& { }^{\circ} \mathrm{F}=9 / 5^{\circ} \mathrm{C}+32
\end{aligned}
$$

## Options/Part Nos.

When only optional parts are required, order with the part numbers listed below.

| Description | Part no. | Qty. | Note |  |
| :---: | :---: | :---: | :---: | :---: |
| Bracket*1 | 25A-ZS-40-K | 1 | For PF3W704/720/504/520 | With 4 tapping screws ( $3 \times 8$ ) |
|  | 25A-ZS-40-L | 1 | For PF3W740/540 | With 4 tapping screws ( $3 \times 8$ ) |
|  | 25A-ZS-40-M | 1 | For PF3W711/511 | With 4 tapping screws ( $4 \times 10$ ) |
| Lead wire with M8 connector | 25A-ZS-40-A | 1 | Lead wire length: 3 m |  |

[^70]For details, refer to the Web Catalog.

# (2) IO-Link Integrated Display ( $\boldsymbol{\in}$ UK $c \boldsymbol{M B}_{\text {us }}^{\circ}$ 

 3-Color Display Digital Flow Switch for Water RoHs 25A-PF3W7-L Series
4 Piping port size

| Symbol | Port <br> size | Rated flow range |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{0 4}$ | $\mathbf{2 0}$ | $\mathbf{4 0}$ | $\mathbf{1 1}$ | $\mathbf{2 1}$ |  |
| $\mathbf{0 3}$ | $3 / 8$ | $\bullet$ | $\bullet$ | - | - | - |
| $\mathbf{0 4}$ | $1 / 2$ | - | $\bullet$ | $\bullet$ | - | - |
| $\mathbf{0 6}$ | $3 / 4$ | - | - | $\bullet$ | $\ominus$ | - |
| $\mathbf{1 0}$ | 1 | - | - | - | $\bullet$ | - |
| $\mathbf{1 2}$ | $1-1 / 4$ | - | - | - | - | $\bullet$ |
| $\mathbf{1 4}$ | $1-1 / 2$ | - | - | - | - | $\bullet$ |

6 Lead wire (Option)

| $\mathbf{N i l}$ | With lead wire with M8 connector (3 m) |
| :---: | :---: |
| $\mathbf{N}$ | None |
| $\mathbf{Q}$ | With M12-M8 conversion lead wire $(0.1 \mathrm{~m})^{* 1}$ |

*1 A 3 m lead wire is also available separately.

* The lead wire with M8 connector and the M12-M8 conversion lead wire are interchangeable with the existing PF3W series.


## Options/Part Nos.

5 Output specification/Temperature sensor

| Symbol | OUT1 | OUT2 | Temperature <br> sensor |
| :---: | :---: | :---: | :---: |
|  | Flow rate/Temperature | Flow rate/Temperature |  |
| L2 | IO-Link/Switch output (N/P) | - |  |
| LT | IO-Link/Switch output (N/P) | Switch output (N/P) | Output (N/P) |
| L2T | IO-Link/Switch output (N/P) | Switch output (N/P) | Yes |

* Temperature output or flow output can be selected for the digital flow switch with a temperature sensor.
* The output specification of L, L2, and L2T should be ordered as made to order.

\section*{7 Integrated display/Unit specification <br> | Symbol | Instantaneous flow |
| :---: | :---: |
| Accumulated flow | Temperature | <br> | Nil | With display unit switching function |  | ${ }^{\circ} \mathrm{C}$ |
| :---: | :---: | :---: | :---: |
| $\mathbf{M}$ | $\mathrm{L} / \mathrm{min}$ | L | ${ }^{\circ} \mathrm{C}$ |}

* Under the New Measurement Act, units other than SI (symbol "M") cannot be used in Japan. Unit can be changed.

Instantaneous flow: $\mathrm{L} / \mathrm{min} \leftrightarrow \mathrm{gal} / \mathrm{min}$
Accumulated flow : L $\leftrightarrow$ gal

* Reference: $1[\mathrm{~L} / \mathrm{min}] \leftrightarrow 0.2642[\mathrm{gal} / \mathrm{min}]$ $1[\mathrm{gal} / \mathrm{min}] \leftrightarrow 3.785[\mathrm{~L} / \mathrm{min}]$

When only optional parts are required, order with the part numbers listed below.

| Description | Part no. | Qty. | Note |  |
| :---: | :---: | :---: | :---: | :--- |
| Bracket*1 | 25A-ZS-40-K | 1 | For PF3W704/720/504/520 | With 4 tapping screws $(3 \times 8)$ |
|  | 25A-ZS-40-L | 1 | For PF3W740/540 | With 4 tapping screws $(3 \times 8)$ |
|  | 25A-ZS-40-M | 1 | For PF3W711/511 | With 4 tapping screws $(4 \times 10)$ |
| Lead wire with M8 connector | 25A-ZS-40-A | 1 | Lead wire length: 3 m |  |
| M12-M8 conversion lead wire | 25A-ZS-40-M12M8-A | 1 | Length 100 mm |  |

*1 For units with flow adjustment valve, 2 brackets are required.


* Brackets are interchangeable with the existing PF3W series.

| 9 Calibration certificate (Only for flow rate) |  |
| :---: | :---: |
| $\mathbf{N i l}$ | None |
| $\mathbf{A}$ | With calibration certificate |

* The ceritificate is written in both Japanese and English. The integrated display type with a temperature sensor can only display the flow rate.
The temperature sensor is not calibrated.
* The 25A- series specifications and dimensions are the same as those of the standard model.


# 3-Color Display Digital Flow Switch for Water <br> RoHS 25A-PF3W5-Z Series 




Rated flow range (Flow range)

| Symbol | Rated flow range |
| :---: | :---: |
| $\mathbf{0 4}$ | 0.5 to $4 \mathrm{~L} / \mathrm{min}$ |
| $\mathbf{2 0}$ | 2 to $16 \mathrm{~L} / \mathrm{min}$ |
| $\mathbf{4 0}$ | 5 to $40 \mathrm{~L} / \mathrm{min}$ |
| $\mathbf{1 1}$ | 10 to $100 \mathrm{~L} / \mathrm{min}$ |

3 Flow adjustment valve

| Symbol | With/without flow <br> adjustment valve | Rated flow range |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{0 4}$ | $\mathbf{2 0}$ | $\mathbf{4 0}$ | $\mathbf{1 1}$ |  |  |
| Nil | None | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |  |
| $\mathbf{S}$ | Yes | $\bullet$ | $\bullet$ | $\bullet$ | - |  |


*1 ISO 228 compliant

* $100 \mathrm{~L} / \mathrm{min}$ type with flow adjustment valve is not available.
* The flow adjustment valve of this product is not suitable for applications which require constant adjustment of flow rate.
5 Port size

| Symbol | Port <br> size | Rated flow range |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{0 4}$ | $\mathbf{2 0}$ | $\mathbf{4 0}$ | $\mathbf{1 1}$ |  |
| $\mathbf{0 3}$ | $3 / 8$ | $\bullet$ | $\bullet$ | - | - |
| 04 | $1 / 2$ | - | $\bullet$ | $\bullet$ | - |
| 06 | $3 / 4$ | - | - | $\bullet$ | $\bullet$ |
| 10 | $1 / 1$ | - | - | - | $\bullet$ |

## Lead wire (Option)

| Nil | With lead wire with M8 connector (3 m) |
| :---: | :--- |
| $\mathbf{N}$ | Without lead wire with M8 connector |

## Calibration certificate

(Only for flow rate)

| Nil | None |
| :---: | :---: |
| $\mathbf{A}$ | With calibration certificate |

* The certificate is written in both Japanese and English.
Units with temperature sensor can only display the flow rate.

6 Output specification/Temperature sensor

| Symbol | OUT1 | OUT2 | Temperature <br> sensor |
| :---: | :---: | :---: | :---: |
| $\mathbf{1}$ | Flow rate | Temperature |  |
| $\mathbf{2}$ | Analog 1 to 5 V | - | to 20 mA |
| $\mathbf{1 T}$ | Analog 1 to 5 V | Analog 1 to 5 V |  |

* To use in combination with remote monitor (PF3W3 series), select analog output of 1 to 5 V of flow rate (output symbol "-1" or "-1T").

8 Remote sensor unit/Unit printed on label

| Symbol | Instantaneous flow | Temperature |
| :---: | :---: | :---: |
| $\mathbf{N i l}$ | $\mathrm{L} / \mathrm{min}$ | ${ }^{\circ} \mathrm{C}$ |
| $\mathbf{G} * 1$ | $\mathrm{~L} / \mathrm{min}(\mathrm{gal} / \mathrm{min})$ | ${ }^{\circ} \mathrm{C} /{ }^{\circ} \mathrm{F}$ |

*1 Under the New Measurement Act, units other than SI (symbol "Nil") cannot be used in Japan.

* G: Made to order

Reference: $1[\mathrm{~L} / \mathrm{min}] \leftrightarrow 0.2642[\mathrm{gal} / \mathrm{min}]$

$$
1[\mathrm{gal} / \mathrm{min}] \leftrightarrow 3.785[\mathrm{~L} / \mathrm{min}]
$$

$$
{ }^{\circ} \mathrm{F}=9 / 5^{\circ} \mathrm{C}+32
$$

## Options/Part Nos.

When only optional parts are required, order with the part numbers listed below.

| Description | Part no. | Qty. | Note |  |
| :---: | :---: | :---: | :---: | :--- |
| Bracket*1 | 25A-ZS-40-K | 1 | For PF3W704/720/504/520 | With 4 tapping screws $(3 \times 8)$ |
|  | 25A-ZS-40-L | 1 | For PF3W740/540 | With 4 tapping screws $(3 \times 8)$ |
|  | 25A-ZS-40-M | 1 | For PF3W711/511 | With 4 tapping screws $(4 \times 10)$ |
| Lead wire with M8 connector | 25A-ZS-40-A | 1 | Lead wire length: 3 m |  |

[^71]Bracket (Option)

| Nil | None |
| :---: | :---: |
| $\mathbf{R}$ | With bracket |

# 3-color display Digital Flow Switch for Water 25A-PF3W Series $\subset \in$ 

## How to Order

Remote sensor unit/Unit printed on label

| Remote sensor unit |  |  |
| :--- | :---: | :---: |
| Output specification/Temperature sensor |  |  |
| Symbol OUT1 OUT2 Temperature sensor <br>  Flow rate Temperature  <br> $\mathbf{1}$ Analog 1 to 5 V -  <br> $\mathbf{2}$ Analog 4 to 20 mA -  <br> $\mathbf{1 T}$ Analog 1 to 5 V Analog 1 to 5 V With temperature sensor |  |  |

* To use in combination with remote monitor (PF3W3 series), select analog output of 1 to 5 V of flow rate (output symbol "-1" or "-1T").

| Symbol | Instantaneous <br> flow rate | Temperature |
| :---: | :---: | :---: |
| $\mathbf{N i l}$ | $\mathrm{L} / \mathrm{min}$ | ${ }^{\circ} \mathrm{C}$ |
| $\mathbf{G}^{* 1}$ | $\mathrm{L} / \mathrm{min}$ <br> $(\mathrm{gal} / \mathrm{min})$ | ${ }^{\circ} \mathrm{C} /{ }^{\circ} \mathrm{F}$ |

*1 Under the New Measurement Act, units other than SI (symbol: "Nil") cannot be used in Japan.

* G: Made to Order

Reference: $1[\mathrm{~L} / \mathrm{min}] \leftrightarrow 0.2642[\mathrm{gal} / \mathrm{min}]$ $1[\mathrm{gal} / \mathrm{min}] \leftrightarrow 3.785[\mathrm{~L} / \mathrm{min}]$ ${ }^{\circ} \mathrm{F}=9 / 5^{\circ} \mathrm{C}+32$

## Remote <br> sensor unit <br> Integrated display

25A-PF3W $504 \square-\square 03-1 T$ 25A-PF3W $704 \square-\square 03-$ AT



Rated flow range (Flow range)
Symbol Rated flow range

| $\mathbf{0 4}$ | 0.5 to $4 \mathrm{~L} / \mathrm{min}$ |
| :---: | :---: |
| $\mathbf{2 0}$ | 2 to $16 \mathrm{~L} / \mathrm{min}$ |
| $\mathbf{4 0}$ | 5 to $40 \mathrm{~L} / \mathrm{min}$ |
| $\mathbf{1 1}$ | 10 to $100 \mathrm{~L} / \mathrm{min}$ |
| $\mathbf{2 1}$ | 50 to $250 \mathrm{~L} / \mathrm{min}$ |

Flow adjustment valved

| Symbol | With/without flow <br> adjustment valve | Rated flow rate |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | O4 | $\mathbf{2 0}$ | $\mathbf{4 0}$ | $\mathbf{1 1}$ | $\mathbf{2 1}$ |  |
| Nil | None | $\mathbf{O}$ | $\mathbf{O}$ | $\mathbf{}$ | $\mathbf{O}$ | $\mathbf{0}$ |
| S | Yes | $\bigcirc$ |  |  | - | - |

* 100 and $250 \mathrm{~L} /$ min types with flow adjustment valves are not available.
* The flow adjustment valve of this product is not suitable for applications which require constant adjustment of flow rate.


Integrated display Output specification/d Temperature sensor

* The 25A- series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catalog.
*1 External input: The accumulated value, peak value, and bottom value can be reset.
*2 For units with temperature sensor, OUT2 can be set as either temperature output or flow rate output. Setting when shipped is for temperature output.

| Symbol | OUT1 |  | UT2 | Temperature sensor |
| :---: | :---: | :---: | :---: | :---: |
|  | Flow rate | Flow rate | Temperature |  |
| A | NPN | NPN | - | None |
| B | PNP | PNP | - |  |
| C | NPN | Analog 1 to 5 V | - |  |
| D | NPN | Analog 4 to 20 mA | - |  |
| E | PNP | Analog 1 to 5 V | - |  |
| F | PNP | Analog 4 to 20 mA | - |  |
| G | NPN | External input*1 | - |  |
| H | PNP | External input*1 | - |  |
| AT | NPN | (NPN) | $\xrightarrow{2}$ NPN | With temperature sensor |
| BT | PNP | (PNP) | $\stackrel{* 2}{\longleftrightarrow}$ PNP |  |
| CT | NPN | (Analog 1 to 5 V ) | $\stackrel{* 2}{\longleftrightarrow}$ Analog 1 to 5 V |  |
| DT | NPN | (Analog 4 to 20 mA ) | $\stackrel{* 2}{\longleftrightarrow}$ Analog 4 to 20 mA |  |
| ET | PNP | (Analog 1 to 5 V ) | $\stackrel{* 2}{\longleftrightarrow}$ Analog 1 to 5 V |  |
| FT | PNP | (Analog 4 to 20 mA ) | $\stackrel{* 2}{\longleftrightarrow}$ Analog 4 to 20 mA |  |

## Options/Part Nos.

When only optional parts are required, order with the part numbers listed below.

| Description | Part no | Qty. | Note |  |
| :---: | :---: | :---: | :---: | :---: |
| Bracket*1 $^{*}$ | $25 A-Z S-40-K$ | 1 | For PF3W704/720/504/520 | With 4 tapping screws (3 x 8) |
|  | $25 A-Z S-40-\mathrm{L}$ | 1 | For PF3W740/540 | With 4 tapping screws (3 x 8) |
|  | $25 A-Z S-40-M$ | 1 | For PF3W711/511 | With 4 tapping screws (4 x 10) |
| Lead wire with M8 connector | $25 A-Z S-40-A$ | 1 | Lead wire length (3 m) |  |

[^72]
# 3-color display <br> Digital Flow Switch for PVC Piping  

## How to Order

Remote sensor unit/Unit printed on label


| Remote sensor unit |
| :---: |
| Output specification |
| Symbol <br> $\mathbf{1}$ <br> OUT1 <br> $\mathbf{2}$ Analog 1 to 5 V |


| Symbol | Instantaneous <br> flow rate |
| :---: | :---: |
| $\mathbf{N i l}$ | $\mathrm{L} / \mathrm{min}$ |
| $\mathbf{G}^{* 1}$ | $\mathrm{L} / \mathrm{min}$ <br> $(\mathrm{gal} / \mathrm{min})$ |

To use in combination with remote monitor (PF3W3 series), select analog output of 1 to 5 V of flow rate (output symbol " -1 ").
*1 Under the New Measurement Act, units other than SI (symbol: "Nil") cannot be used in Japan.

* G: Made to Order

Reference: 1 [ $\mathrm{L} / \mathrm{min}$ ] $\leftrightarrow 0.2642$ [gal /min] 1 [gal/ min$] \leftrightarrow 3.785[\mathrm{~L} / \mathrm{min}]$

Calibration certificate $\boldsymbol{\bullet}$ (Only flow sensor)

| Nil | None |
| :---: | :---: |
| A | With calibration certificate |

* The certificate is written in both English and Japanese.

Type

## Remote

 sensor unitIntegrated display

Series compatible with ${ }^{\circ}$ secondary batteries

## 25A-PF3W

25A-PF3W 511
-U25


| $\mathbf{5}$ | Remote sensor unit |
| :--- | :--- |
| $\mathbf{7}$ | Integrated display |

Rated flow range (Flow range)

| Symbol | Rated flow range |
| :---: | :---: |
| $\mathbf{1 1}$ | 10 to $100 \mathrm{~L} / \mathrm{min}$ |
| $\mathbf{2 1}$ | 30 to $250 \mathrm{~L} / \mathrm{min}$ |

Connection typed

| $U$ | PVC pipe |
| :--- | :--- |

PVC pipe O.D.

| Symbol | Port <br> size | Rated flow range |  | Pipe O.D.*1 |
| :---: | :---: | :---: | :---: | :---: |
|  | 11 | 21 |  |  |
| 25 | 25 A | - | - | 32 mm |
| 30 | 30 A | - | - | 38 mm |

*1 JIS K 6742 equivalent
Integrated display Output specification

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

| Symbol | OUT1 | OUT2 |
| :---: | :---: | :---: |
| A | NPN | NPN |
| B | PNP | PNP |
| C | NPN | Analog 1 to 5 V |
| D | NPN | Analog 4 to 20 mA |
| E | PNP | Analog 1 to 5 V |
| F | PNP | Analog 4 to 20 mA |
| G | NPN | External input *1 |
| H | PNP | External input *1 |

*1 External input: The accumulated value, peak value, and bottom value can be reset.

## Options/Part Nos.

When only optional parts are required, order with the part numbers listed below.

| Description | Part no. | Qty. | Note |  |
| :---: | :---: | :---: | :---: | :---: |
| Bracket | 25A-ZS-40-M | 1 | For PF3W711/511 | With 4 tapping screws (4 x 10) |
| Lead wire with M8 connector | 25A-ZS-40-A | 1 | Lead wire length (3 m) |  |

* The 25A- series specifications and dimensions are the same as those of the standard model.


# For 25A-PF3W5(-Z) 3-Color Display <br> C $\mathcal{C}$ CR 

 Digital Flow Monitor for Water 25A-PF3W Series
## How to Order



| 25 A-PF3W 30 A |  |  |
| :---: | :---: | :---: |
| Series compatible with secondary batteries |  | Type ${ }^{\text {d }}$ |
|  |  | te monitor unit |
| For remote sensor units, select the analog output 1 to 5 V type. <br> Applicable sensors: PF3W5 $\square \square-\square \square-1(\mathrm{~T})$ |  |  |
|  |  |  |
| Output specification |  |  |
| Symbol | OUT1 | OUT2 |
| A | NPN | NPN |
| B | PNP | PNP |
| C | NPN | Analog 1 to 5 V |
| D | NPN | Analog 4 to 20 mA |
| E | PNP | Analog 1 to 5 V |
| F | PNP | Analog 4 to 20 mA |
| G | NPN | External input |
| H | PNP | External input |
| J | Analog 1 to 5 V | Analog 1 to 5 V |
| K | Analog 4 to 20 mA | Analog 4 to 20 mA |

In combination with remote sensor unit with temperature sensor, only OUT2 can be set for temperature sensor output.

## Lead wire

 The lead wire does not come connected, but it is shipped together with the product.

Remote monitor unit/Unit specificationd

| Symbol | Instantaneous flow | Accumulated flow | Temperature |
| :---: | :---: | :---: | :---: |
| $\mathbf{M}$ | $\mathrm{L} / \mathrm{min}$ | L | ${ }^{\circ} \mathrm{C}$ |
| $\mathbf{G}$ | $\mathrm{gal} / \mathrm{min}$ | gal | ${ }^{\circ} \mathrm{C}$ |
| $\mathbf{F}$ | $\mathrm{gal} / \mathrm{min}$ | gal | ${ }^{\circ} \mathrm{F}$ |
| $\mathbf{J}$ | $\mathrm{L} / \mathrm{min}$ | L | ${ }^{\circ} \mathrm{F}$ |

* Under the New Measurement Act, units other than SI (symbol "M")
cannot be used in Japan.
* G, F, J: Made to order

Reference: $1[\mathrm{~L} / \mathrm{min}] \leftrightarrow 0.2642[\mathrm{gal} / \mathrm{min}]$

$$
1[\mathrm{gal} / \mathrm{min}] \leftrightarrow 3.785[\mathrm{~L} / \mathrm{min}]
$$

${ }^{\circ} \mathrm{F}=9 / 5^{\circ} \mathrm{C}+32$

## Options/Part Nos.

When only optional parts are required, order with the part numbers listed below.

| Description | Part no. | Note |
| :---: | :---: | :---: |
| Panel mount adapter | 25A-ZS-26-B | With waterproof seal and screws |
| Front protective cover + Panel mount adapter | 25A-ZS-26-C | With waterproof seal and screws |
| Front protective cover only | ZS-26-01 | Separately order panel mount adapter, etc. |
| Power supply/output connection lead wire | ZS-40-W | Lead wire length: 2 m |
| Sensor connector (e-con) | ZS-28-CA-4 | 1 pc. |
| Lead wire with connector for copying | ZS-40-Y | Connect up to 10 copy destination units |

* The 25A- series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catalog.


| 4 Seal material |  |
| :---: | :---: |
| Symbol | Seal material |
| N | NBR |
| F | FKM |
| E | EPDM |
| (6) Thread type |  |
| Symbol | Thread type |
| R | Rc |
| N | NPT |
| F | G |


| 5 Orifice diameter and port size |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Symbol | Orifice diameter [ $\mathrm{mm} \sigma$ ] | Port size | Size |  |  |
|  |  |  | 10 | 20 | 30 |
| 101 | 1.6 | 1/8 | $\bullet$ | - | - |
| 201 | 2.4 | 1/8 | $\bullet$ | - | - |
| 301 | 3.2 | 1/8 | - | $\bullet$ | - |
| 302 |  | 1/4 | - | $\bullet$ | - |
| 303 |  | 3/8 | - | $\bullet$ | - |
| 402 | 4.0 | 1/4 | - | $\bullet$ | $\bullet$ |
| 403 |  | 3/8 | - | $\bullet$ | $\bullet$ |
| 502 | 5.6 | 1/4 | - | $\bullet$ | $\bullet$ |
| 503 |  | 3/8 | - | $\bullet$ | $\bullet$ |
| 702 | 7.1 | 1/4 | - | $\bullet$ | $\bullet$ |
| 703 |  | 3/8 | - | $\bullet$ | $\bullet$ |

## Rated voltage <br> AC

| (2) Valve type |  |
| :---: | :---: |
| Symbol | Valve type |
| 1 | $\text { N.C. } \quad \underset{1(\mathrm{IN})}{\stackrel{2(\mathrm{OUT})}{=}=\mathrm{m}}$ |

> | 3 | Body material |
| :--- | :--- |
| Smblat | Body material |
| $\mathbf{S}$ | Stainless steel |

Symbol Rated voltage $\frac{\text { Symbol }}{1}$ Rated voltage

| $\mathbf{1}$ | 100 VAC | $\mathbf{7}$ | 240 VAC |
| :---: | :---: | :---: | :---: |
| $\mathbf{2}$ | 200 VAC | $\mathbf{8}$ | 48 VAC |
| $\mathbf{3}$ | $120(110)$ VAC | $\mathbf{B}$ | 24 VAC |
| $\mathbf{4}$ | 220 VAC | $\mathbf{J}$ | 230 VAC | DC


| Symbol | Rated voltage |
| :---: | :---: |
| 5 | 24 VDC |
| 6 | 12 VDC |

 \begin{tabular}{l}
\multicolumn{2}{|c|}{10 Option } <br>

| Symbol | Option |
| :---: | :---: |
| Nil | None |
| B | $\begin{array}{c}\text { With bracke** } \\ \text { (Stainless steel) }\end{array}$ |

\end{tabular}

(9) Oil-free option 10 Option | Symbol | Option |
| :---: | :---: |
| Nil | None |
| D | Oil-free |

*1 Refer to the Web
Catalog for bracket assembly part nos.

## Flow Rate Characteristics

| Size | Port size | Orifice diameter [mmø] | Flow rate characteristics*1 |  |  |  |  |  | Model | Weight*2 <br> $[\mathrm{g}]$ <br> Stainess steel boov ${ }^{* 3}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Air |  |  | Water, Oil |  |  |  |  |
|  |  |  | C [dm3/(s.bar)] | b | Cv | Kv | Converion Cv |  |  |  |
| 10 | 1/8 | 1.6 | 0.36 | 0.58 | 0.08 | 0.07 | 0.08 | 0.9 | 25A-JSX11-S $\square 101$ | 160 |
| 10 | 1/8 | 2.4 | 0.62 | 0.45 | 0.15 | 0.13 | 0.15 | 0.4 | 25A-JSX11-S $\square 201$ | 160 |
| 20 | 1/8 | 3.2 | 1.35 | 0.48 | 0.35 | 0.30 | 0.35 | 0.7 | 25A-JSX21-S $\square 301$ | 320 |
|  | 1/4 | 3.2 | 1.35 | 0.48 | 0.35 | 0.30 | 0.35 | 0.7 | 25A-JSX21-S $\square 302$ | 320 |
|  |  | 4.0 | 2.02 | 0.48 | 0.52 | 0.45 | 0.52 | 0.3 | 25A-JSX21-S $\square 402$ | 320 |
|  |  | 5.6 | 2.62 | 0.43 | 0.73 | 0.63 | 0.73 | 0.2 | 25A-JSX21-S $\square 502$ | 320 |
|  |  | 7.1 | 3.15 | 0.44 | 0.88 | 0.76 | 0.88 | 0.1 | 25A-JSX21-S $\square 702$ | 320 |
|  | 3/8 | 3.2 | 1.35 | 0.48 | 0.35 | 0.30 | 0.35 | 0.7 | 25A-JSX21-S $\square 303$ | 320 |
|  |  | 4.0 | 2.02 | 0.48 | 0.52 | 0.45 | 0.52 | 0.3 | 25A-JSX21-S $\square 403$ | 320 |
|  |  | 5.6 | 2.62 | 0.43 | 0.73 | 0.63 | 0.73 | 0.2 | 25A-JSX21-S $\square 503$ | 320 |
|  |  | 7.1 | 3.15 | 0.44 | 0.88 | 0.76 | 0.88 | 0.1 | 25A-JSX21-S $\square 703$ | 320 |
| 30 | 1/4 | 4.0 | 2.02 | 0.48 | 0.52 | 0.45 | 0.52 | 1.0 | 25A-JSX31-S $\square 402$ | 450 |
|  |  | 5.6 | 2.62 | 0.43 | 0.73 | 0.63 | 0.73 | 0.5 | 25A-JSX31-S $\square 502$ | 450 |
|  |  | 7.1 | 3.15 | 0.44 | 0.88 | 0.76 | 0.88 | 0.2 | 25A-JSX31-S $\square 702$ | 450 |
|  | 3/8 | 4.0 | 2.02 | 0.48 | 0.52 | 0.45 | 0.52 | 1.0 | 25A-JSX31-S $\square 403$ | 450 |
|  |  | 5.6 | 2.62 | 0.43 | 0.73 | 0.63 | 0.73 | 0.5 | 25A-JSX31-S $\square 503$ | 450 |
|  |  | 7.1 | 3.15 | 0.44 | 0.88 | 0.76 | 0.88 | 0.2 | 25A-JSX31-S $\square 703$ | 450 |

*1 The flow rate characteristics of this product vary.
*2 The values were calculated based on the combination of an Rc or NPT thread and a grommet. Add 20 g for the grommet type with PCB, 70 g for the conduit type, 50 g for the DIN terminal type, and 15 g for the M12 connector type.
*3 Add 30 g for the G thread (port size $3 / 8$ ) type.
( Electrical entry

| Symbol | Electrical entry |  | Size |  |  | CE/UKCAcompliant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 10 | 20 | 30 |  |
| G | Grommet*1 | $0$ | - | - | - | 24 VDC |
|  |  |  |  |  |  | 12 VDC |
| GS | Grommet with PCB (With surge voltage suppressor)*2 |  | - | - | - | 100 VAC |
|  |  |  |  |  |  | 24 VDC |
|  |  |  |  |  |  | 12 VDC |
|  |  |  |  |  |  | 48 VAC |
|  |  |  |  |  |  | 24 VAC |
| CS | Conduit (With surge voltage suppressor) |  | - | - | - | All voltages |
| DS | DIN terminal (With surge voltage suppressor) |  | - | - | - | All voltages |
| DZ | $\begin{gathered} \text { DIN terminal } \\ \text { with light } \\ \text { (With surge voltage suppressor) } \end{gathered}$ |  | - | - | - | All voltages |
| DN | DIN terminal without connector (With surge voltage suppressor) |  | - | - | - | All voltages |
| WN | M12 connector/ Without connector cable (With surge voltage suppressor)*3 | $0$ | - | - | - | All voltages |

*1 DC voltage only
*2 Although it is possible to manufacture products of any voltage, only the voltages listed in the table are CE/UKCA compliant.
*3 The cable for the M12 connector is not included, so be sure to order it separately. In addition, note that the JSX cable part number in the "Option" section of the Web Catalog is not compatible with products with secondary battery specifications.

## Applicable Fluid Checklist



* The list shows the compatibility between general fluids and the seal materials. Consider the operating environment and application sufficiently before selecting the seal material. Fluid and component compatibility should be checked before use. If something is not clear, please contact SMC.

Direct Operated 2-Port Solenoid Valve

## man 25A-JSX Series

| How to Orde |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $25 A-J S M 2$ |  |  | $1-\Delta$ | 30 | R- 5 |  |
| Series compatible with secondary batteries |  |  |  |  |  |  |
| (1) Size |  | 2 Valve type |  |  | (3) Body material |  |
| Symbol | Size | Symbol | Valve type |  | Body material |  |
| 2 | 20 | 1 | N.C. |  | Aluminum |  |
| 3 | 30 |  |  |  |  |  |
|  |  |  |  |  |  |  |
| (4) Seal material |  | (5) Orifice diameter and port size |  |  |  |  |
| Symbol | Seal material | Symbol | Orifice diameter [mmø] | Port size | Size |  |
| N | NBR |  |  |  | 20 | 30 |
| F | FKM |  |  |  | Aluminum body | Aluminum body |
| 6 Thread type |  | 301 | 3 | 1/8 | $\bigcirc$ | - |
|  |  | 302 |  | 1/4 | $\bigcirc$ | - |
|  |  | 402 | 4 | 1/4 | - | $\bigcirc$ |
| Symb | ol Thread type | 403 |  | 3/8 | - | $\bigcirc$ |
| R | Rc | 501 | 5 | 1/8 | $\bigcirc$ | - |
| N | NPT | 502 |  | 1/4 | $\bigcirc$ | - |
| F | G | 702 | 7 | 1/4 | - | $\bigcirc$ |
|  |  | 703 |  | 3/8 | - | $\bigcirc$ |

## 7 Rated voltage

AC
DC

| Symbol | Rated voltage | Symbol | Rated voltage | Symbol | Rated voltage |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{1}$ | 100 VAC | $\mathbf{7}$ | 240 VAC | $\mathbf{5}$ | 24 VDC |  |  |
| $\mathbf{2}$ | 200 VAC | $\mathbf{8}$ | 48 VAC | $\mathbf{6}$ | 12 VDC |  |  |
| $\mathbf{3}$ | $120(110)$ VAC | $\mathbf{B}$ | 24 VAC |  |  |  |  |
| $\mathbf{4}$ |  |  |  |  |  |  |  |


| 9 Oil-free option |  |
| :---: | :---: |
| Symbol | Option |
| Nil | None |
| D | Oil-free |

10 Option

| Symbol | Option |
| :---: | :---: |
| Nil | None |
| B | With bracket ${ }^{* 1}$ |

*1 Bracket assembly part nos.
For size 20: 90-VX021N-12A
For size 30: 90-VX022N-12A

*1 DC voltage only
*2 Although it is possible to manufacture products of any voltage, only the voltages listed in the table are CE/UKCA compliant.
*3 The cable for the M12 connector is not included, so be sure to order it separately. In addition, note that the JSX cable part number in the "Option" section of the Web Catalog is not compatible with products with secondary battery specifications.

Flow Rate Characteristics

## Aluminum Body Type

| Size | Port size | Orifice diameter [mmo] | Flow rate characteristics*1 |  |  | Max. operating pressure differential [MPa] | Model | Weight*2 <br> [g] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | C [dm/(s.bar)] | b | Cv |  |  |  |
| 20 | 1/8, 1/4 | 3 | 1.41 | 0.54 | 0.35 | 0.7 | 25A-JSX21-A $\square 30 \square$ | 240 |
|  |  | 5 | 1.66 | 0.54 | 0.52 | 0.2 | 25A-JSX21-A $\square 50 \square$ | 240 |
| 30 | 1/4, 3/8 | 4 | 1.57 | 0.59 | 0.52 | 1.0 | 25A-JSX31-A $\square 40 \square$ | 400 |
|  |  | 7 | 3.02 | 0.53 | 0.88 | 0.2 | 25A-JSX31-A $\square 70 \square$ | 400 |

*1 The flow rate characteristics of this product vary.
*2 Indicates case of grommet type
Add 20 g for the grommet type with PCB, 70 g for the conduit type, 50 g for the DIN terminal type, and 15 g for the M12 connector type.


| 1 Size |
| :--- |
| Symbol Size <br> $\mathbf{1}$ 10 <br> $\mathbf{2}$ 20 <br> $\mathbf{3}$ 30 |

2 Valve type

| Symbol | Valve type |  |
| :---: | :---: | :---: |
| 1 | 2 (OUT) |  |
| 1 | N.C. |  |
|  |  |  |

3 Body material \begin{tabular}{|c|c|}
\hline Symbol \& Body material <br>
\hline $\mathbf{S}$ \& Stainless steel <br>
\hline

 

\hline $\mathbf{S}$ \& Stainless steel <br>
\hline
\end{tabular}


(5) Orifice diameter and port size

| Symbol | Orifice diameter | 2 <br> $[\mathrm{~mm} \varnothing]$ | Port size | Size |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 201 |  | 10 | $\mathbf{2 0}$ | $\mathbf{3 0}$ |  |  |
| $\mathbf{4 0 2}$ | 4.0 | $1 / 4$ | - | - | - |  |  |
| $\mathbf{4 0 3}$ |  | $3 / 8$ | - | $\bullet$ | - |  |  |
| $\mathbf{7 0 2}$ | 7.1 | $1 / 4$ | - | $\bullet$ | $\bullet$ |  |  |
| $\mathbf{7 0 3}$ |  | $3 / 8$ | - | $\bullet$ | $\bullet$ |  |  |


| 6 | Thread type |
| :---: | :---: |
| Symbol | Thread type |
| $\mathbf{R}$ | Rc |
| $\mathbf{N}$ | NPT |
| F | G |




| Symbol | Option |
| :---: | :---: |
| Nil | None |
| $\mathbf{D}$ | Oil-free |

## 10 Option

| Symbol | Option |
| :---: | :---: |
| Nil | None |
| B | With bracket*1 <br> (Stainless steel) |

*1 Refer to the Web Catalog for bracket assembly part nos.

*1 The cable for the M12 connector is not included, so be sure to order it separately. In addition, note that the JSX cable part number in the "Option" section of the Web Catalog is not compatible with products with secondary battery specifications.

* A grommet type is not available.

Flow Rate Characteristics

| Size | Port size | Orifice diameter [mmø] | Flow rate characteristics*1 |  |  |  |  | $\begin{array}{\|c\|} \hline \text { Max. operating } \\ \text { opessure } \\ \text { differential \|MPa) } \end{array}$ | Model | Weight*2 [g] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Air |  |  | Water, Oil |  |  |  |  |
|  |  |  | C | b | Cv | Kv | Conversion CV |  |  | Stainess steel body ${ }^{\text {k }}$ |
| 10 | 1/8 | 2.4 | 0.62 | 0.45 | 0.15 | 0.13 | 0.15 | 0.9 | 25A-JSX11U-S $\square 201$ | 180 |
| 20 | 1/4 | 4.0 | 2.02 | 0.48 | 0.52 | 0.45 | 0.52 | 1.0 | 25A-JSX21U-S $\square 402$ | 340 |
|  |  | 7.1 | 3.15 | 0.44 | 0.88 | 0.76 | 0.88 | 0.4 | 25A-JSX21U-S $\square 702$ | 340 |
|  | 3/8 | 4.0 | 2.02 | 0.48 | 0.52 | 0.45 | 0.52 | 1.0 | 25A-JSX21U-S $\square 403$ | 340 |
|  |  | 7.1 | 3.15 | 0.44 | 0.88 | 0.76 | 0.88 | 0.4 | 25A-JSX21U-S $\square 703$ | 340 |
| 30 | 1/4 | 7.1 | 3.15 | 0.44 | 0.88 | 0.76 | 0.88 | 0.8 | 25A-JSX31U-S $\square 702$ | 470 |
|  | 3/8 | 7.1 | 3.15 | 0.44 | 0.88 | 0.76 | 0.88 | 0.8 | 25A-JSX31U-S $\square 703$ | 470 |

*1 The flow rate characteristics of this product vary.
*2 The values were calculated based on the combination of an Rc or NPT thread and a grommet with PCB. Add 50 g for the conduit type, 30 g for the DIN terminal type, and -5 g for the M12 connector type.
*3 Add 30 g for the G thread (port size $3 / 8$ ) type.

## Applicable Fluid Checklist

| Applicable <br> fluid | Seal material |  |  |
| :---: | :---: | :---: | :---: |
|  | NBR | FKM | EPDM |
| Air | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Water | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Oil | - | $\bigcirc$ | - |

* The list shows the compatibility between general fluids and the seal materials. Consider the operating environment and application sufficiently before selecting the seal material. Fluid and component compatibility should be checked before use. If something is not clear, please contact SMC


# Direct Operated 2-Port Solenoid Valve 25A-VX21/22/23 Series 

| How to Order (Singl |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $25 A-V \times 24$ |  |  |  |  |  |  |
| Series compatible with secondary batteries |  |  |  |  |  |  |
|  |  |  |  |  | 0 For |  |
| -Size/Valve type |  |  | - Body material/Port size/Orifice diameter |  |  |  |
| Symbol | Size | Valve type | Symbol | Body material | Port size | Orifice diameter |
| 1 | Size 1 | Single unit N.C. | A | Aluminum | 1/8 | 2 |
|  |  |  | B |  |  | 3 |
|  |  |  | C |  |  | 5 |
|  |  |  | D |  | 1/4 | 2 |
|  |  |  | E |  |  | 3 |
|  |  |  | F |  |  | 5 |
|  |  |  | H | Resin | ø6 One-touch fitting | 2 |
|  |  |  | J |  |  | 3 |
|  |  |  | K |  |  | 5 |
|  |  |  | L |  | $ø 8$ One-touch fitting | 2 |
|  |  |  | M |  |  | 3 |
|  |  |  | N |  |  | 5 |
| 2 | Size 2 | Single unit N.C. | A | Aluminum | 1/4 | 4 |
|  |  |  | B |  |  | 7 |
|  |  |  | D |  | 3/8 | 4 |
|  |  |  | E |  |  | 7 |
|  |  |  | H | Resin | $ø 8$ One-touch fitting | 4 |
|  |  |  | J |  |  | 7 |
|  |  |  | L |  | ø10 One-touch fitting | 4 |
|  |  |  | M |  |  | 7 |
| 3 | Size 3 | Single unit N.C. | A | Aluminum | 1/4 | 5 |
|  |  |  | B |  |  | 8 |
|  |  |  | C |  |  | 10 |
|  |  |  | D |  | 3/8 | 5 |
|  |  |  | E |  |  | 8 |
|  |  |  | F |  |  | 10 |
|  |  |  | G |  | 1/2 | 10 |
|  |  |  | H | Resin | ø10 One-touch fitting | 5 |
|  |  |  | J |  |  | 8 |
|  |  |  | K |  |  | 10 |
|  |  |  | L |  | ø12 One-touch fitting | 5 |
|  |  |  | M |  |  | 8 |
|  |  |  | N |  |  | 10 |

For other special options, refer to the standard products.

| Special voltage | 24 VAC | Low concentration ozone resistant (Seal material: FKM) |
| :---: | :---: | :---: |
|  | 48 VAC | Seal material: EPDM |
|  | 220 VAC | Oil-free |
|  | 240 VAC | G thread |
|  | 12 VDC | NPT thread |
| DIN terminal with light |  | With bracket (Aluminum body only) |
| Conduit terminal with light |  | Mounting holes on the bottom side of the body (Aluminum body only) |
| Without DIN connector |  | Special electrical entry direction |

* Using the oil-free specification in a low dew point environment may result in the reduced service life of the product.

Please monitor the actual device in a low dew point environment in order to determine the actual service life of the product.

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Direct Operated 2-Port Solenoid Valve 25A-VX21/22/23 Series 

| How to Order ( |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 25A-VX2 <br> Series compatible with secondary batteries |  |  |  |  |  | 4 H |
|  |  |  |  |  |  |  |
| -Size/Valve type |  |  | Fluid |  |  |  |
|  |  |  |  | 2 | or water |  |
|  |  |  |  | 4 For m | dium vac |  |
|  |  |  | -Body material/Port size/Orifice diameter |  |  |  |
| Symbol | Size | Valve type | Symbol | Body material | Port size | Orifice diameter |
| 1 | Size 1 | Single unit N.C. | H | Stainless steel | 1/8 | 2 |
|  |  |  | J |  |  | 3 |
|  |  |  | K |  |  | 5 |
|  |  |  | L |  | 1/4 | 2 |
|  |  |  | M |  |  | 3 |
|  |  |  | N |  |  | 5 |
| 2 | Size 2 | Single unit N.C. | H | Stainless steel | 1/4 | 4 |
|  |  |  | J |  |  | 7 |
|  |  |  | L |  | 3/8 | 4 |
|  |  |  | M |  |  | 7 |
| 3 | Size 3 | Single unit N.C. | H | Stainless steel | 1/4 | 5 |
|  |  |  | J |  |  | 8 |
|  |  |  | K |  |  | 10 |
|  |  |  | L |  | 3/8 | 5 |
|  |  |  | M |  |  | 8 |
|  |  |  | N |  |  | 10 |
|  |  |  | P |  | 1/2 | 10 |

For other special options, refer to the standard products.

| Special voltage | 24 VAC | Applicable to deionized water (Seal material: FKM) |
| :---: | :---: | :---: |
|  | 48 VAC | Seal material: EPDM |
|  | 220 VAC | Oil-free |
|  | 240 VAC | G thread |
|  | 12 VDC | NPT thread |
| DIN terminal with light |  | With bracket |
| Conduit terminal with light |  | Mounting holes on the bottom side of the body |
| Without DIN connector |  | Special electrical entry direction |

* Using the oil-free specification in a low dew point environment may result in the reduced service life of the product.
Please monitor the actual device in a low dew point environment in order to determine the actual service life of the product.

Common Specifications

| Valve type | N.C. |
| :--- | :---: |
| Seal material | NBR (For water) |
|  | FKM (For medium vacuum) |
| Coil insulation type | Class B |
| Thread type | Rc |

- Voltage/Electrical entry

| Symbol | Voltage | Electrical entry |
| :---: | :---: | :---: |
| A | 24 VDC | Grommet |
| B | 100 VAC | Grommet (With surge voltage (suppressor) |
| C | 110 VAC |  |
| D | 200 VAC |  |
| E | 230 VAC |  |
| F | 24 VDC |  |
| G | 24 VDC | DIN terminal (With surge) voltage (suppressor) |
| H | 100 VAC |  |
| J | 110 VAC |  |
| K | 200 VAC |  |
| L | 230 VAC |  |
| M | 24 VDC | Conduit terminal <br> (With surge) voltage suppressor |
| N | 100 VAC |  |
| P | 110 VAC |  |
| Q | 200 VAC |  |
| R | 230 VAC |  |
| S | 24 VDC | Conduit (With surge) voltage (suppressor) |
| T | 100 VAC |  |
| U | 110 VAC |  |
| v | 200 VAC |  |
| W | 230 VAC |  |
| Y | 24 VDC | Flat terminal |
| Z | Other voltages and electrical options |  |

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# Pilot Operated 2-Port Solenoid Valve For Air 

 25A-VXD Series

[^73]For details, refer to the Web Catalog.

# Pilot Operated 2-Port Solenoid Valve For Water 

 25A-VXD Series| How to Order |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| -Size-Valve type |  |  |  | Fluid |  |  |  |  | Seal material |  |
|  |  |  |  |  |  |  |  | Coil insulation type | Class B |
|  |  |  |  |  | For Water |  |  | Thread type | Rc |
|  |  |  | ¢ Body material/Port size/Orifice diameter | - Voltage/Electrical entry |  |  |  |
| Symbol | Size | Valve type |  | Symbol | Body material | Port size | Orifice diameter | Symbol | Voltage | Electrical entry |  |
| 3 | $\begin{gathered} 8 \mathrm{~A} \\ 10 \mathrm{~A} \\ 15 \mathrm{~A} \end{gathered}$ | N.C. |  | D | Stainless steel | 1/4 | 10 | A | 24 VDC | Grommet |  |
|  |  |  | E | 3/8 |  |  |  |  |  |  |
| A |  | N.O. | F |  $1 / 2$ |  | of |  |  |  |  |
| 4 | $\begin{aligned} & 10 \mathrm{~A} \\ & 15 \mathrm{~A} \end{aligned}$ | N.C. | J | $\begin{gathered} \text { Stainless } \\ \text { steel } \\ \hline \end{gathered}$ | 3/8 | 15 |  |  |  |  |
| B |  | N.O. |  |  | 1/2 |  |  |  |  |  |  |
| 5 | 20 A |  | M | Stainless steel | $3 / 4$ |  | B | 100 VAC | Grommet (With surge voltage suppressor) |  |  |
| C |  | $\frac{\text { N.C. }}{\text { N.O. }}$ |  |  |  | 20 | C | 110 VAC |  |  |  |
| C |  |  | P |  |  |  | D | 200 VAC |  |  |  |
| D | 25A | $\frac{\text { N.C. }}{\text { N.O. }}$ |  | Stainless steel | 1 | 25 | E | 230 VAC |  |  |  |
|  |  |  |  |  |  |  | F | 24 VDC |  |  |  |
|  |  |  |  | All other special options are the same as those of the standard model. |  |  | G | 24 VDC |  |  |  |
|  |  |  |  |  |  |  | H | 100 VAC |  |  |  |
|  |  |  |  |  |  |  | J | 110 VAC |  |  |  |
|  |  |  |  |  |  |  | K | 200 VAC |  |  |  |
|  |  |  |  |  |  |  | L | 230 VAC |  |  |  |
|  |  |  |  |  | Special voltage | 48 VAC | M | 24 VDC | Conduit terminal (With surge voltage (suppressor) |  |  |
|  |  |  |  |  |  | 220 VAC |  |  |  |  |  |
|  |  |  |  |  |  | 240 VAC | N | 100 VAC |  |  |  |
|  |  |  |  |  |  | 12 VDC | P | 110 VAC |  |  |  |
|  |  |  |  | DIN terminal with light |  |  |  |  |  |  |  |
|  |  |  |  | Conduit terminal with light |  |  | Q | 200 VAC |  |  |  |
|  |  |  |  | Without DIN connector |  |  | R | 230 VAC |  |  |  |
|  |  |  |  | Applicable to deionized water (Seal material: FKM) |  |  | S | 24 VDC |  |  |  |
|  |  |  |  | Seal material: EPDM |  |  | T | 100 VAC |  |  |  |
|  |  |  |  | Oil-free |  |  | U | 110 VAC |  |  |  |
|  |  |  |  | G thread |  |  |  |  |  |  |  |
|  |  |  |  | NPT thread |  |  | V | 200 VAC |  |  |  |
|  |  |  |  | With bracket |  |  | W | 230 VAC |  |  |  |
|  |  |  |  | Special electrical entry direction |  |  |  |  | Flat terminal |  |  |
|  |  |  |  | Using the oil-free specification in a low dew point environment may result in the reduced service life of the product. Please monitor the actual device in a low dew point environment in order to determine the actual service life of the product. |  |  | Y | 24 VDC |  |  |  |
|  |  |  |  |  |  |  | Z | Other voltages and electrical option |  |  |  |

[^74]For details, refer to the Web Catalog.

# Zero Differential Pressure Type Pilot Operated 2-Port Solenoid Valve/For Air 25A-VXZ Series 

All other special options are the same as those of the standard model.

| Special voltage | 24 VAC |
| :---: | :---: |
|  | 48 VAC |
|  | 220 VAC |
|  | 240 VAC |

DIN terminal with light
Conduit terminal with light
Without DIN connector
Low concentration ozone resistant
(Seal material: FKM)
Seal material: EPDM
Oil-free
G thread
NPT thread
With bracket (Standard for resin body)
Special electrical entry direction

* Using the oil-free specification in a low dew point environment may result in the reduced service life of the product. Please monitor the actual device in a low dew point environment in order to determine the actual service life of the product.

Common Specifications

| Seal material | NBR |
| :--- | :---: |
| Coil insulation type | Class B |
| Thread type | Rc |

- Voltage/Electrical entry

| Symbol | Voltage | Electrical entry |
| :---: | :---: | :---: |
| A | 24 VDC | Grommet |
| B | 100 VAC | Grommet$\left(\begin{array}{l} \text { With surge } \\ \text { voltage } \\ \text { suppressor } \end{array}\right)$ |
| C | 110 VAC |  |
| D | 200 VAC |  |
| E | 230 VAC |  |
| F | 24 VDC |  |
| G | 24 VDC | DIN terminal $\left(\begin{array}{l}\text { With surge } \\ \text { voltage } \\ \text { suppressor }\end{array}\right)$ |
| H | 100 VAC |  |
| J | 110 VAC |  |
| K | 200 VAC |  |
| L | 230 VAC |  |
| M | 24 VDC | Conduit terminal <br> $\left(\begin{array}{l}\text { With surge } \\ \text { voltage } \\ \text { suppressor }\end{array}\right)$ |
| N | 100 VAC |  |
| P | 110 VAC |  |
| Q | 200 VAC |  |
| R | 230 VAC |  |
| S | 24 VDC | Conduit $\left(\begin{array}{l}\text { With surge } \\ \text { voltage } \\ \text { suppressor }\end{array}\right)$ |
| T | 100 VAC |  |
| U | 110 VAC |  |
| V | 200 VAC |  |
| W | 230 VAC |  |
| Y | 24 VDC | Flat terminal |
| Z |  | Other voltages |

[^75]For details, refer to the Web Catalog.

# Zero Differential Pressure Type Pilot Operated 2-Port Solenoid Valve/For Water 25A-VXZ Series 

How to Order (Single Unit)
All other special options are the same as those of the standard model.

| Special voltage | 24 VAC |
| :---: | :---: |
|  | 48 VAC |
|  | 220 VAC |
|  | 240 VAC |
|  | 12 VDC |

DIN terminal with light

| Conduit terminal with light |
| :--- |
| Without DIN connector |

Applicable to deionized water
(Seal material: FKM)
Seal material: EPDM
Oil-free
G thread
NPT thread
With bracket
Special electrical entry direction

* Using the oil-free specification in a low dew point environment may result in the reduced service life of the product. Please monitor the actual device in a low dew point environment in order to determine the actual service life of the product.


[^76]For details, refer to the Web Catalog.

# Diaphragm Valve for Ultra High Purity Air Operated Type AZ3542 \& 4542 25 A Series 

- Suitable for UHP gas supply line
- Body material: 316L SS
- Pneumatically actuated normally closed

How to Order


Model

| Code | Status | Maximum operating pressure |
| :---: | :---: | :---: |
| 542 | Normally closed | 125 psig |
|  | (N.C.) | $(0.9 \mathrm{MPa})$ |


| Material ${ }^{\text {d }}$ |  |  |
| :---: | :---: | :---: |
| Code | Body material |  |
| S | 316L |  |
| Ports |  |  |
| Code | Ports | Connection |
| 2P | 2 ports | Machined |
| 2PW |  | Welded |


| Code | Connections | Size | AZ3 |  | AZ4 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Port | 2P | 2PW | 2P | 2PW |
| MV4 | 1/4 inch face seal (Male) ${ }^{*}$ ) |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| FV4 | 1/4 inch face seal (Female) |  |  | $\bigcirc$ |  | $\bigcirc$ |
| TW4 | 1/4 inch tube weld |  | $\bigcirc$ | $\bigcirc$ |  |  |
| MV6 | $3 / 8$ inch face seal (Male) ${ }^{*}$ ) |  |  |  | $\bigcirc$ | $\bigcirc$ |
| FV6 | $3 / 8$ inch face seal (Female) |  |  |  |  | $\bigcirc$ |
| TW6 | 3/8 inch tube weld |  |  |  | $\bigcirc$ | $\bigcirc$ |
| TW8 | 1/2 inch tube weld |  |  |  | $\bigcirc$ |  |

- Only available with the same type fittings inlet and outlet.
* 1) Fixed fitting (no rotating nut)

Specifications

| Operating Parameters | AZ3542 $\square$ 25A | AZ4542 $\square \mathbf{2 5 A}$ |
| :--- | ---: | :---: |
| Weight | $0.26 \mathrm{~kg}^{* 1)}$ |  |

*1) Weight for AZ3542S2PMV4MV4 including individual boxed weight. It may vary depending on connections or options.

* Some parts have sizes and shapes that are different from the standard products.

For details, refer to the Web Catalog.

## Dimensions

AZ3542 \& 4542

## Ports: 2P (Machined)




Connections: MV $\square$


Connections: TW $\square$


| Ports | Connections | A | B |
| :---: | :---: | :---: | :---: |
| 2P <br> (Machined) | MV4 | $1.14(29.0)$ | 1.12 sq. (28.4) |
|  | TW4 | $0.875(22.2)$ |  |
|  | MV6 | $1.5(38.1)$ | 1.48 sq. (37.6) |
|  | TW6 | $0.875(22.2)$ | 1.12 sq. (28.4) |
|  | TW8 | $1.125(28.6)$ |  |

Ports: 2PW (Welded)


Connections: FV $\square$


Connections: MV $\square$


Connections: TW $\square$


| Ports | Connections | A |
| :---: | :---: | :---: |
| 2PW <br> (Welded) | MV4 | $1.39(35.3)$ |
|  | FV4 |  |
|  | TW4 | $1.06(26.9)$ |
|  | MV6 | $1.93(49.0)$ |
|  | FV6 |  |

## Diaphragm Valves for General Applications Air Operated Type AK3542 \& 4542 $\square 25$ A series

- Body material: 316 SS
- Normally closed

How to Order

del 6

| Code | Status | Maximum operating pressure |
| :---: | :---: | :---: |
| $\mathbf{5 4 2}$ | Normally closed (N.C.) | 125 psig ( 0.9 MPa ) |

Material ${ }^{6}$

| Code | Body material |
| :---: | :---: |
| S | 316 SS |



Series compatible with Series compatible wion
secondary batteries

|  | Size |
| :---: | :---: |
| Code | Cv |
| $\mathbf{3}$ | 0.29 |
| $\mathbf{4}$ | 0.5 |



Connections

| Code | Connections | AK3 | AK4 |
| :---: | :---: | :---: | :---: |
| 4T | 1/4 inch compression | $\bigcirc$ | - |
| 4BR | Rc 1/4 |  |  |
| 4BRN | R 1/4 |  |  |
| 4 | NPT 1/4 female |  |  |
| 4N | NPT 1/4 male |  |  |
| 6T | 3/8 inch compression | - | $\bigcirc$ |
| 6BR | Rc 3/8 |  |  |
| 6BRN | R 3/8 |  |  |
| 6 | NPT 3/8 female |  |  |
| 6N | NPT 3/8 male |  |  |

Note) Only available with same type fittings inlet and outlet.

[^77]For details, refer to the Web Catalog.

## Environment Secondary Batiery Compatible

- Copper (Cu) and zinc (Zn) free*1
*1 Excludes motors, cables, controllers/drivers
- Compatible with dew points as low as $-70^{\circ} \mathrm{C}$

Uses grease compatible with low dew points

High Rigidity and High Precision Slider Type
25A-LEKFS


Slider Type
Ball Screw Drive/25A-LEFS


299


AC Servo Motor p. 303, 304 Motorless Type p. 304-1

High Rigidity Slider Type
Ball Screw Drive/25A-LEJS
AC Servo Motor p. 305, 306

```
Motorless Type p. 306-1
```



## Environment <br> Secondary Battery Compatible

## Rod Type/25A-LEY

 controllers/drivers.

## Guide Rod Type/25A-LEYG

Battery-less Absolute (Step Motor 24 VDC) p. 314-4
Incremental (Step Motor 24 VDC) Incremental (Servo Motor 24 VDC

Bushing ( $\varnothing 50$ to $\varnothing 100$ ) Material: Steel bearing alloy

Piston rod
Surface treatment: Hard chrome plating

Plate
Surface treatment: Electroless nickel plating

p. 314-6, 314-8 Motorless Type


* Copper and zinc materials are used for the motors, cables, controllers/drivers.


# High Rigidity and High Precision <br> Slider Type Seconday Beiter Compaiile 


(5) Stroke*1

| Size | Stroke |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 |
| 16 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | - | - | - | - | - | - |
| 25 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | - | - | - |
| 32 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | - |
| 40 | - | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

## Motor option

| Nil | Without option |
| :---: | :---: |
| $\mathbf{B}$ | With lock |

## 7 Actuator cable type/length

Robotic cable
Robotic cable

| Nil | None | R8 | $8^{* 2}$ |
| :---: | :---: | :---: | :---: |
| R1 | 1.5 | RA | $10^{* 2}$ |
| R3 | 3 | RB | $15^{* 2}$ |
| R5 | 5 | RC | $20^{* 2}$ |

Solid state auto switches should be ordered separately. Click here for auto switch details.
Applicable auto switches
D-M9N(V)-900, D-M9P(V)-900, D-M9B(V)-900
D-M9NW(V)-900, D-M9PW(V)-900, D-M9BW(V)-900
Replacement Parts/Grease Pack

| Applied portion | Order no. |
| :---: | :---: |
| Ball screw | GR-D-005 (5 g) |
| Rail guide | GR-D-010 (10 g) |

* Copper and zinc materials are used for the motors, cables, controllers/drivers, and auto switch magnets.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.


## $\triangle$ Caution

## [CE/UKCA-compliant products]

EMC compliance was tested by combining the electric actuator LEKFS series and the controller JXC series.
The EMC depends on the configuration of the customer's control panel and the relationship with other electrical equipment and wiring. Therefore, compliance with the EMC directive cannot be certified for SMC components incorporated into the customer's equipment under actual operating conditions. As a result, it is necessary for the customer to verify compliance with the EMC directive for the machinery and equipment as a whole.

## [Precautions relating to differences in controller versions]

When the JXC series is to be used in combination with the battery-less absolute encoder, use a controller that is version V3.4 or S3.4 or higher. For details, refer to the Web Catalog.
[UL-certified products]
The JXC series controllers used in combination with electric actuators are UL certified.
*4 Select "Nil" for anything other than DeviceNet ${ }^{\circledR}$, CC-Link, or parallel input. Select "Nil," "S," or "T" for DeviceNet® or CC-Link. Select "Nil," "1," "3," or " 5 " for parallel input.

## The actuator and controller are sold as a package.

Confirm that the combination of the controller and actuator is correct.

## <Check the following before use.>

(1) Check the actuator label for the model number (after " $25 \mathrm{~A}-$-"). This number should match that of the controller/driver.
(2) Parallel input (NPN or PNP)


* Refer to the Operation Manual for using the products.

Please download it via our website: https://www.smcworld.com

## Trademark

EtherNet/IP® is a registered trademark of ODVA, Inc.
DeviceNet ${ }^{\circledR}$ is a registered trademark of ODVA, Inc.
EtherCAT ${ }^{\circledR}$ is registered trademark and patented technology, licensed by Beckhoff Automation GmbH , Germany.

| Type | Step data input type | EtherCAT direct input type | EtherCAT direct input type with STO sub-function | EtherNet/IPTM direct input type | EtherNet/IPrix direct input type with STO sub-function | PROFINET direct input type | PROFINET direct input type with STO sub.function | DeviceNete ${ }^{\text {® }}$ direct input type | 10-Link direct input type | 10-Link direct input type with STO sub-function | CC-Link direct input type |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Series | $\begin{aligned} & \hline \text { JXC51 } \\ & \text { JXC61 } \end{aligned}$ | JXCE1 | JXCEF | JXC91 | JXC9F | JXCP1 | JXCPF | JXCD1 | JXCL1 | JXCLF | JXCM1 |
| Features | Parallel I/O | EtherCAT direct input | EtherCAT direct input with STO sub-function | EtherNet/IPTM direct input | EtherNetIPTM direct input with STO sub-function | PROFINET direct input | $\begin{array}{\|c} \left\lvert\, \begin{array}{c} \text { PROFINET direct } \\ \text { input with STO } \\ \text { sub-function } \end{array}\right. \\ \hline \end{array}$ | DeviceNet ${ }^{\text {® }}$ direct input | IO-Link direct input | 10-Link direct input with STO sub-function | CC-Link direct input |
| Compatible motor | Battery-less absolute (Step motor 24 VDC) |  |  |  |  |  |  |  |  |  |  |
| Max. number of step data | 64 points |  |  |  |  |  |  |  |  |  |  |
| Power supply volage | 24 VDC |  |  |  |  |  |  |  |  |  |  |

## High Performance

RoHS


For details on controllers, refer to the next page.


3 Motor type

| Symbol | Type | Applicable size |  |  | Compatible <br> controllers |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 25A-LEKFS25 | 25A-LEKFS32 |  |

(4) Lead [mm]

| Symbol | $25 A-L E K F S 25$ | $25 A-L E K F S 32$ | $25 A-L E K F S 40$ |
| :---: | :---: | :---: | :---: |
| H | 20 | 24 | 30 |
| A | 12 | 16 | 20 |
| B | 6 | 8 | 10 |

7 Actuator cable type/length
Robotic cable

| Nil | None | R8 | $8^{* 2}$ |
| :---: | :---: | :---: | :---: |
| R1 | 1.5 | RA | $10^{* 2}$ |
| R3 | 3 | RB | $15^{* 2}$ |
| R5 | 5 | RC | $20^{* 2}$ |


| 5 Stroke ${ }^{* 1}$ [mm] |  |  |
| :---: | :---: | :---: |
| Stroke | Note |  |
|  | Size | Applicable stroke |
| $\begin{aligned} & 50 \text { to } \\ & 800 \end{aligned}$ | 25 | 50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800 |
| $\begin{aligned} & 50 \text { to } \\ & 1000 \end{aligned}$ | 32 | 50, 100, 150, 200, 250, 300, 350, 400, $450,500,550,600,650,700,750,800$, 850, 900, 950, 1000 |
| $\begin{aligned} & 150 \text { to } \\ & 1200 \end{aligned}$ | 40 | $150,200,250,300,350,400,450,500$, $550,600,650,700,750,800,850,900$, 950, 1000, 1100, 1200 |

6 Motor option

| Nil | Without option |
| :---: | :---: |
| B | With lock |

## Applicable Stroke Table

| Size | Stroke |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 |
| 25 | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | - | - | - | - |
| 32 | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | - | - |
| 40 | - | - | $\bullet$ | $\bullet$ | - | - | - | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | - | $\bullet$ | $\bullet$ | $\bullet$ |

[^78]Applicable auto switches
D-M9N(V)-900, D-M9P(V)-900, D-M9B(V)-900
D-M9NW(V)-900, D-M9PW(V)-900, D-M9BW(V)-900

Replacement Parts/Grease Pack

| Applied portion | Order no. |
| :---: | :---: |
| Ball screw | GR-D-005 $(5 \mathrm{~g})$ |
| Rail guide |  |
| Dust seal band (Back side only) | GR-D-010 (10 g) |

* Copper and zinc materials are used for the motors, cables, controllers/drivers, and auto switch magnets.
* The 25A-series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

8 Controller

*2 Produced upon receipt of order
*3 The DIN rail is not included. It must be ordered separately.


#### Abstract

$\triangle$ Caution

\section*{[CE/UKCA-compliant products]}

EMC compliance was tested by combining the electric actuator LEF series and the controller JXC series. The EMC depends on the configuration of the customer's control panel and the relationship with other electrical equipment and wiring. Therefore, compliance with the EMC directive cannot be certified for SMC components incorporated into the customer's equipment under actual operating conditions. As a result, it is necessary for the customer to verify compliance with the EMC directive for the machinery and equipment as a whole.


## Trademark

EtherNet/IP® is a registered trademark of ODVA, Inc.
EtherCAT ${ }^{\circledR}$ is registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany.

The actuator and controller are sold as a package.
Confirm that the combination of the controller and actuator is correct.
<Check the following before use.>
*1 Check the actuator label for the model number (after "25A-"). This number should match that of the controller/driver.


* Refer to the Operation Manual for using the products.

Please download it via our website: https://www.smcworld.com

| Type | Step data input type | EtherCAT direct input type | EtherNet/IPTM direct input type | PROFINET direct input type |
| :---: | :---: | :---: | :---: | :---: |
| Series | $\begin{aligned} & \text { JXC5H } \\ & \text { JXC6H } \end{aligned}$ | JXCEH | JXC9H | JXCPH |
| Features | Parallel I/O | EtherCAT direct input | EtherNet/IPTM direct input | PROFINET direct input |
| Compatible motor | Step motor 24 VDC |  |  |  |
| Max. number of step data | 64 points |  |  |  |
| Power supply voltage | 24 VDC |  |  |  |

## High Rigidity and High Precision Slider Type

## Ball Screw Drive

| $25 A-\square E K$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Series compatible with secondary batteries |  |  |  |  |  |
|  |  |  |  |  |  |
| 1 <br> 25$\quad$Size |  |  |  |  |  |
|  |  |  |  |  |  |
| $\begin{array}{\|l} \hline 32 \\ \hline 40 \\ \hline \end{array}$ | Nil |  | ine |  |  |
|  | R | Right sid | parallel |  |  |
|  | L L | Left side | parallel |  |  |
| 3 Motor type |  |  |  |  |  |
| Symbol | Type | Output [W] | 1 <br> Size | $9$ <br> Driver type | Compatible drivers |
| $\begin{array}{\|l\|} \hline \text { S2*1 } \\ \hline \text { S3 } \\ \hline \end{array}$ | AC servo motor (Incremental encoder) | 100 | 25 | A1/A2 | LECSA $\square$-S1 |
|  |  | 200 | 32 | A1/A2 | LECSAD-S3 |
| S4 |  | 400 | 40 | A2 | LECSA2-S4 |
| T6*2 | AC servo motor (Absolute encoder) |  |  | B2 | LECSB2-T5 |
|  |  | 100 | 25 | C2 | LECSC2-T5 |
|  |  |  |  | S2 | LECSS2-T5 |
| T7 |  |  |  | B2 | LECSB2-T7 |
|  |  | 200 | 32 | C2 | LECSC2-T7 |
|  |  |  |  | S2 | LECSS2-T7 |
| T8 |  |  |  | B2 | LECSB2-T8 |
|  |  | 400 | 40 | C2 | LECSC2-T8 |
|  |  |  |  | S2 | LECSS2-T8 |

*1 For motor type S2, the compatible driver part number suffix is S 1 .
*2 For motor type T6, the compatible driver part number is LECS $\square 2-\mathrm{T} 5$

## (4) Lead [mm]

| Symbol | 25A-LEKFS25 | 25A-LEKFS32 | 25A-LEKFS40 |
| :---: | :---: | :---: | :---: |
| $\mathbf{H}$ | 20 | 24 | 30 |
| $\mathbf{A}$ | 12 | 16 | 20 |
| $\mathbf{B}$ | 6 | 8 | 10 |

## How to Order


(5) Stroke [mm]

| 50 | 50 |
| :---: | :---: |
| to | to |
| 1200 | 1200 |

* For details, refer to the applicable stroke table below.


## (6) Motor option

| Nil | Without option |
| :---: | :---: |
| $\mathbf{B}$ | With lock |

## 7 Cable type ${ }^{* 1 * 2}$

| Nil | Without cable |
| :---: | :---: |
| S | Standard cable |
| R |  |

R Robotic cable (Flexible cable)
*1 A motor cable and encoder cable are included with the product. (A lock cable is also included if motor option "B: With lock" is selected.)
*2 Standard cable entry direction is "(B) Counter axis side." For the right/left side parallel motor types of the ball screw drive, the cable entry direction is "(A) Axis side." (For details, refer to the Web Catalog.)

(9) Driver type

|  | Compatible drivers | Power supply voltage [V] | Size |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 25 | 32 | 40 |
| Nil | Without driver | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| A1 | LECSA1-S $\square$ | 100 to 120 | $\bigcirc$ | $\bigcirc$ |  |
| A2 | LECSA2-S $\square$ | 200 to 230 | $\bigcirc$ | $\bigcirc$ | - |
| B2 | LECSB2-T $\square$ | 200 to 240 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| C2 | LECSC2-TD | 200 to 230 | - | - | $\bigcirc$ |
| S2 | LECSS2-T $\square$ | 200 to 240 | - | - | - |

* When a driver type is selected, a cable is included. Select the cable type and cable length. Example) S2S2: Standard cable (2 m) + Driver (LECSS2) S2: Standard cable ( 2 m ) Nil: Without cable and driver
$10 \mathrm{I} / \mathrm{O}$ cable length [m]**

| Nil | Without cable |
| :---: | :---: |
| $\mathbf{H}$ | Without cable (Connector only) |
| $\mathbf{1}$ | 1.5 |

*1 When "Nil: Without driver" is selected for the driver type, only "Nil: Without cable" can be selected. Refer to the Web Catalog. if an I/O cable is required.

## Solid state auto switches should be ordered separately. <br> Click here for auto switch details.

Applicable auto switches
D-M9N(V)-900, D-M9P(V)-900, D-M9B(V)-900 D-M9NW(V)-900, D-M9PW(V)-900,
D-M9BW(V)-900

Applicable Stroke Table

| Size | Stroke |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 |
| 25 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | - | - | - |
| 32 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | - |
| 40 | - | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

* Please contact SMC for non-standard strokes as they are produced as special orders.


## Compatible Drivers

| Driver type | Pulse input type/ Positioning type | Pulse input type | CC-Link direct input type | SSCNET III/H type |
| :---: | :---: | :---: | :---: | :---: |
| Series | LECSA | LECSB-T | LECSC-T | LECSS-T |
| Number of point tables | Up to 7 | Up to 255 | Up to 255 (2 stations occupied) | - |
| Pulse input | $\bigcirc$ | $\bigcirc$ | - | - |
| Applicable network | - | - | CC-Link | SSCNETII/H |
| Control encoder | Incremental 17-bit encoder | Absolute 22-bit encoder | Absolute 18-bit encoder | Absolute 22-bit encoder |
| Communication function | USB communication | USB communication | RS422 communication | USB communication |
| Power supply voltage [V] | 100 to 120 VAC $(50 / 60 \mathrm{~Hz})$, 200 to 230 VAC $(50 / 60 \mathrm{~Hz})$ | 200 to 240 VAC (50/60 Hz) | 200 to 230 VAC ( $50 / 60 \mathrm{~Hz}$ ) | 200 to 240 VAC (50/60 Hz) |

## Replacement Parts/Grease Pack

| Applied portion | Order no. |
| :---: | :---: |
| Ball screw | GR-D-005 (5 g) |
| Rail guide | GR-D-010 (10 g) |

* Copper and zinc materials are used for the motors, cables, controllers/drivers, and auto switch magnets.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## LECS $\square$ Series $>$ p. 298-5

How to Order


| 1 Size | 2 <br> Motor mounting <br> position |  |
| :---: | :---: | :---: |
| $\mathbf{2 5}$ |  |  |
| $\mathbf{3 2}$ |  |  |
| $\mathbf{4 0}$ |  |  |

3 Motor type

| Symbol | Type | Output [W] | (1) Size | (9) Driver type | Compatible drivers |
| :---: | :---: | :---: | :---: | :---: | :---: |
| V6*1 | AC servo motor (Absolute encoder) | 100 | 25 | M2 | LECYM2-V5 |
|  |  |  |  | U2 | LECYU2-V5 |
| V7 |  | 200 | 32 | M2 | LECYM2-V7 |
|  |  |  |  | U2 | LECYU2-V7 |
| V8 |  | 400 | 40 | M2 | LECYM2-v8 |
|  |  |  |  | U2 | LECYU2-V8 |

*1 For motor type V6, the compatible driver part number suffix is V5.
6 Motor option

| Nil | Without option |
| :---: | :---: |
| B | With lock |


| Nil |  |
| :---: | :---: |
| S | Without cable |
| R | Robotic cablard (Fleable |

Lead [mm]

| Symbol | 25A-LEKFS25 | 25A-LEKFS32 | 25A-LEKFS40 |
| :---: | :---: | :---: | :---: |
| H | 20 | 24 | 30 |
| A | 12 | 16 | 20 |
| B | 6 | 8 | 10 |


\section*{5 Stroke [mm] <br> | $\mathbf{5 0}$ | 50 |
| :---: | :---: |
| to | to |
| $\mathbf{1 2 0 0}$ | 1200 |}

8 Actuator cable length [m]

| Nil | Without cable |
| :---: | :---: |
| $\mathbf{3}$ | 3 |
| $\mathbf{5}$ | 5 |
| $\mathbf{A}$ | 10 |
| $\mathbf{C}$ | 20 |

(9) Driver type

|  | Compatible <br> drivers | Power supply <br> voltage [V] |
| :---: | :---: | :---: |
| Nil | Without driver | - |
| M2 | LECYM2-V $\square$ | 200 to 230 |
| U2 | LECYU2-V $\square$ | 200 to 230 |

* When a driver type is selected, a cable is included. Select the cable type and cable length.
10 I/O cable length $[\mathrm{m}]^{* 1}$

| $\mathbf{N i l}$ | Without cable |
| :---: | :---: |
| $\mathbf{H}$ | Without cable (Connector only) |
| $\mathbf{1}$ | 1.5 |

*1 When "Nil: Without driver" is selected for the driver type, only "Nil: Without cable" can be selected. Refer to the Web Catalog. if an I/O cable is required.

Solid state auto switches should be ordered separately. Click here for auto switch details.

## Applicable auto switches

D-M9N(V)-900, D-M9P(V)-900,
D-M9B(V)-900, D-M9NW(V)-900,
D-M9PW(V)-900, D-M9BW(V)-900

Applicable Stroke Table

- Standard

| Size | Stroke |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 |
| 25 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | - | - | - |
| 32 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | - |
| 40 | - | - | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

* Please contact SMC for non-standard strokes as they are produced as special orders.


## Compatible Drivers

| Driver type | MMECHATROLINK-II type | IIMECHATROLINK-III type |
| :---: | :---: | :---: |
| Series | LECYM | LECYU |
| Applicable network | MECHATROLINK-II | MECHATROLINK-III |
| Control encoder | Absolute 20-bit encoder |  |
| Communication device | USB communication, RS-422 communication |  |
| Power supply voltage [V] | 200 to 230 VAC ( $50 / 60 \mathrm{~Hz}$ ) |  |

Replacement Parts/Grease Pack

| Applied portion | Order no. |
| :---: | :---: |
| Ball screw | GR-D-005 $(5 \mathrm{~g})$ |
| Rail guide | GR-D-010 $(10 \mathrm{~g})$ |
| Dust seal band (Back side only) |  |

* Copper and zinc materials are used for the motors, cables, controllers/drivers, and auto switch magnets.
* The 25A-series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## How to Order

#  

| 1 Size |
| :---: |
| 25 |
| 32 |
| 40 |


| Motor mounting position |  |
| :---: | :---: |
| Nil | In-line |
| R | Right side parallel |
| L | Left side parallel |

(3) Mounting type

| NZ |
| :---: |
| NY |
| NX |
| NW |
| NV |
| NU |
| NT |
| NM1 |
| NM2 |
| NM3 |

44 Lead [mm]

| Symbol | 25A-LEKFS25 | 25A-LEKFS32 | 25A-LEKFS40 |
| :---: | :---: | :---: | :---: |
| H | 20 | 24 | 30 |
| A | 12 | 16 | 20 |
| B | 6 | 8 | 10 |

5 Stroke [mm]

| $\mathbf{5 0}$ | 50 |
| :---: | :---: |
| to | to |
| $\mathbf{1 2 0 0}$ | 1200 |

* Refer to the applicable stroke table.

Solid state auto switches should be ordered separately.
Click here for auto switch details.

## Applicable auto switches

D-M9N(V)-900, D-M9P(V)-900, D-M9B(V)-900
D-M9NW(V)-900, D-M9PW(V)-900, D-M9BW(V)-900
Replacement Parts/Grease Pack

| Applied portion | Order no. |
| :---: | :---: |
| Ball screw | GR-D-005 $(5 \mathrm{~g})$ |
| Rail guide | GR-D-010 $(10 \mathrm{~g})$ |

Applicable Stroke Table


Compatible Motors and Mounting Types*5

| Applicable motor model |  | Size/Mounting type |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Manufacturer | Series | 25 |  |  |  |  |  | 32/40 |  |  |  |  |  |  |  |  |
|  |  | NZ | NY | NX | NM1 | NM2 | NM3 | NZ | NY | NX | NW | NV | NU | NT | NM1 | NM2 |
| Mitsubishi Electric Corporation | MELSERVO JN/J4/J5 | $\bigcirc$ | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - |
| YASKAWA Electric Corporation | $\Sigma-\mathrm{V} / 7 / \mathrm{X}$ | * ${ }^{4}$ | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| SANYO DENKI CO., LTD. | SANMOTION R | $\bigcirc$ | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - |
| OMRON Corporation | OMNUC G5/1S | $\bigcirc$ | - | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - |
| Panasonic Corporation | MINAS A5/A6 |  | - | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - |
| FANUC CORPORATION | $\beta$ is (-B) | $\bigcirc$ | - | - | - | - | - |  | - | - | $\bigcirc$ | - | - | - | - | - |
| NIDEC SANKYO CORPORATION | S-FLAG | $\bigcirc$ | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - |
| KEYENCE CORPORATION | SV/SV2 | *4 | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - |
| FUJI ELECTRIC CO., LTD. | ALPHA7 | $\bigcirc$ | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - |
| MinebeaMitsumi Inc. | Hybrid stepping motors | - | - | - | - *1 | - | - *3 | - | - | - | - | - | - | - | -*2 | - |
| Shinano Kenshi Co., Ltd. | CSB-BZ | - | - | - | - *1 | - | -*3 | - | - | - | - | - | - | - | - | - |
| ORIENTAL MOTOR Co., Ltd. | $\alpha$ STEP AR/AZ | - | - | - | - | $\begin{array}{\|c\|} \hline- \\ (46 \text { only }) \\ \hline \end{array}$ | - | - | - | - | - | - | - | - | - | -*2 |
| FASTECH Co., Ltd. | Ezi-SERVO | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - | - | -*2 | - |
| Rockwell Automation, Inc. (Allen-Bradley) | Kinetix MP/VP/TL |  | - | - | - | - | - | - | - | $\begin{gathered} \hline \text { © } \\ (\text { MP/VP } \\ \text { only }) \end{gathered}$ | - | - | - | $(\mathrm{TL} \text { only) }$ | - | - |
| Beckhoff Automation GmbH | AM 30/31/80/81 | - | - | - | - | - | - | - | - | $\begin{gathered} \hline \text { O*1 } \\ (80 / 81 \\ \text { only) } \\ \hline \end{gathered}$ | - | $\left\|\begin{array}{c} * * 1 \\ (30 \text { only }) \end{array}\right\|$ | $\left\lvert\, \begin{gathered} * 2 \\ (31 \text { only }) \end{gathered}\right.$ | - | - | - |
| Siemens AG | SIMOTICS S-1FK7 | - | - | - | - | - | - | - | - | - *1 | - | - | - | - | - | - |
| Delta Electronics, Inc. | ASDA-A2 | $\bigcirc$ | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - |
| ANCA Motion | AMD2000 | - | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - |

*1 Motor mounting position: In-line only *2 Only size 32 is available when the motor mounting position is right (or left) side parallel. *3 Motor mounting position: Right (or left) side parallel only * 4 For some motors, the connector may protrude from the motor body. Be sure to check for interference with the mounting surface before selecting a motor.
*5 The compatible motors and mounting types are typical examples. Select the mounting type after referring to the "Motor Mounting, Applicable Motor Dimensions" tables on the "Dimensions" pages.

[^79]Slider Type
Ball Screw Drive semaraveilive coniaide
25A-LEFS Series 25A-LEFS16, 25,32,40 C $\in \mathrm{L}_{\mathrm{K}}^{\mathrm{k}}$
RoHS


For details on controllers, refer to the next page.

| 1 Accuracy |
| :--- |
| Nil Basic type <br> $\mathbf{H}$ High-precision type |


| 2 Size |
| :---: |
| 16 |
| 25 |
| 32 |
| 40 |


| 3 Motor mounting position |  |
| :---: | :---: |
| Nil | In-line |
| $\mathbf{R}$ | Right side parallel |
| $\mathbf{L}$ | Left side parallel |

4 Motor type

| E | Battery-less absolute <br> (Step motor 24 VDC) |
| :--- | :--- |


| 6 Stroke ${ }^{* 1}$ [mm] |  |  |
| :---: | :---: | :---: |
| Stroke | Note |  |
|  | Size | Applicable stroke |
| 50 to 500 | 16 | $\begin{aligned} & 50,100,150,200,250,300,350,400,450, \\ & 500 \end{aligned}$ |
| 50 to 800 | 25 | $\begin{aligned} & 50,100,150,200,250,300,350,400,450 \text {, } \\ & 500,550,600,650,700,750,800 \end{aligned}$ |
| $\begin{aligned} & 50 \text { to } \\ & 1000 \end{aligned}$ | 32 | 50, 100, 150, 200, 250, 300, 350, 400, 450, $500,550,600,650,700,750,800,850,900$, 950, 1000 |
| $\begin{aligned} & 150 \text { to } \\ & 1200 \end{aligned}$ | 40 | 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1000, 1100, 1200 |

7 Motor option

| Nil | Without option |
| :---: | :---: |
| B | With lock |

## Actuator cable type/length

| Robotic cable | $[\mathrm{m}]$ |  |  |
| :---: | :---: | :---: | ---: |
| Nil | None | R8 | $8 * 3$ |
| R1 | 1.5 | RA | $10^{* 3}$ |
| R3 | 3 | RB | $15^{* 3}$ |
| R5 | 5 | RC | $20^{* 3}$ |

Replacement Parts/Grease Pack

| Applied portion | Order no. |
| :---: | :---: |
| Ball screw | GR-D-005 $(5 \mathrm{~g})$ |
| Rail guide | GR-D-010 $(10 \mathrm{~g})$ |

Copper and zinc materials are used for the motors, cables, controllers/drivers.

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

10 Controller


Interface (Communication protocol/Input/Output)

| Symbol | Type | Number of ixes, Special specifation |  |
| :---: | :---: | :---: | :---: |
|  |  | Standard | With STO sub-function |
| 5 | Parallel input (NPN) | $\bigcirc$ |  |
| 6 | Parallel input (PNP) | $\bigcirc$ |  |
| E | EtherCAT | $\bigcirc$ | $\bigcirc$ |
| 9 | EtherNet/IPTM | $\bigcirc$ | $\bigcirc$ |
| P | PROFINET | $\bigcirc$ | $\bigcirc$ |
| D | DeviceNet ${ }^{\text {® }}$ | $\bigcirc$ |  |
| L | IO-Link | $\bigcirc$ | $\bigcirc$ |
| M | CC-Link | $\bigcirc$ |  |


*1 Please contact SMC for non-standard strokes as they are produced as special orders.
*2 Refer to the body mounting example on the Web Catalog for the mounting method.
*3 Produced upon receipt of order
*4 The DIN rail is not included. It must be ordered separately.
*5 Select "Nil" for anything other than DeviceNet ${ }^{\circledR}$, CC-Link, or parallel input.
Select "Nil," "S," or "T" for DeviceNet ${ }^{\circledR}$ or CC-Link.
Select "Nil," "1," "3," or " 5 " for parallel input.

## $\triangle$ Caution

## [CE/UKCA-compliant products]

EMC compliance was tested by combining the electric actuator LEF series and the controller JXC series.
The EMC depends on the configuration of the customer's control panel and the relationship with other electrical equipment and wiring. Therefore, compliance with the EMC directive cannot be certified for SMC components incorporated into the customer's equipment under actual operating conditions. As a result, it is necessary for the customer to verify compliance with the EMC directive for the machinery and equipment as a whole.
[Precautions relating to differences in controller versions]
When the JXC series is to be used in combination with the battery-less absolute encoder, use a controller that is version V3.4 or S3.4 or higher. For details, refer to the Web Catalog.

## [UL certification]

The JXC series controllers used in combination with electric actuators are UL certified.

The actuator and controller are sold as a package.
Confirm that the combination of the controller and actuator is correct.

## <Check the following before use.>

(1) Check the actuator label for the model number (after " $25 A^{-}$"), This number should match that of the controller/driver.
(2) Check that the Parallel I/O configuration matches (NPN or PNP).


* Refer to the Operation Manual for using the products

Please download it via our website: https://www.smcworld.com

| Type | Step data input type | EtherCAT direct input type | EtherCAT direct input type with STO subbfunction | EtherNet//PTM direct input type | Ethernetl\|pru direct inpultype with STO sub-function | PROFINET direct input type | PROFNET direct input type with STO sub.function | DeviceNet ${ }^{\circledR}$ direct input type | IO-Link direct input type | 10.Link direct inputtype with STO sub-Uuction | CC-Link direct input type |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Series | $\begin{aligned} & \hline \text { JXC51 } \\ & \text { JXC61 } \end{aligned}$ | JXCE1 | JXCEF | JXC91 | JXC9F | JXCP1 | JXCPF | JXCD1 | JXCL1 | JXCLF | JXCM1 |
| Features | Parallel I/O | EtherCAT direct input | EtherCAT direc input with STO sub-function | EtherNet//PTM direct input |  | PROFINET direct input | $\begin{array}{\|c\|} \hline \text { PROFNET direct } \\ \text { input with STO } \\ \text { sub-function } \end{array}$ | DeviceNet® ${ }^{\circledR}$ direct input | IO-Link direct input | 10-Link direct input with STO sub-function | CC-Link direct input |
| Compatible motor | Battery-less absolute (Step motor 24 VDC) |  |  |  |  |  |  |  |  |  |  |
| Max. number of step data | 64 points |  |  |  |  |  |  |  |  |  |  |
| Power supply yoltage | 24 VDC |  |  |  |  |  |  |  |  |  |  |

Refer to the Web Catalog for model selection.

## How to Order



| (1) Accuracy |  |  |
| :--- | :---: | :---: |
| Nil |  | Basic type |
| H |  |  | High-precision type $\quad$.

(3) Motor mounting
position

| Nil | In-line |
| :---: | :---: |
| R | Right side e parallel |
| L | Left side parallel |


| 2 Size |
| :---: |
| 16 |
| 25 |
| 32 |
| 40 |

## (5) Lead [mm]

Symbol 25A-LEFS16 25A-LEFS25 25A-LEFS32 25A-LEFS40

| $\mathbf{H}$ | - | 20 | 24 | 30 |
| :---: | :---: | :---: | :---: | :---: |
| $\mathbf{A}$ | 10 | 12 | 16 | 20 |
| $\mathbf{B}$ | 5 | 6 | 8 | 10 |


| 4 Motor type |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Symbol | Type | Applicable size |  |  |  | Compatible controllers/drivers |
|  |  | 25A-LEFS16 | 25A-LEFS25 | 25A-LEFS32 | 25A-LEFS40 |  |
| Nil | Step motor (Servo/24 VDC) | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | JXC51 JXCEF <br> JXC61 JXC9F <br> JXCE1 JXCPF <br> JXC91 JXCLF <br> JXCP1  <br> JXCD1 LECP1 <br> JXCL1 LECPA <br> JXCM1  |
| A | Servo motor (24 VDC) | $\bullet$ | $\bullet$ | - | - | LECA6 |




## Actuator cable type/length*4

Standard cable [m] Robotic cable

| Standard cable [m] |  | Robotic cable [m] |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Nil | None | R1 | 1.5 | RA | 10*3 |
| S1 | 1.5*6 | R3 | 3 | RB | 15*3 |
| S3 | 3*6 | R5 | 5 | RC | 20*3 |
| S5 | 5*6 | R8 | 8*3 |  |  |

Replacement Parts/Grease Pack

| Applied portion | Order no. |
| :---: | :---: |
| Ball screw | GR-D-005 $(5 \mathrm{~g})$ |
| Rail guide | GR-D-010 $(10 \mathrm{~g})$ |

* Copper and zinc materials are used for the motors, cables, controllers/drivers.
* The 25A- series specifications and dimensions are the same as those of the standard model.

| 10 Controller |  |  |  |
| :---: | :---: | :---: | :---: |
| Nil | Without controller |  |  |
| C $\square 1 \square \square$ |  | With controller |  |
| Interface (Communication protocol/lnput/Output) ${ }^{\text {d }}$ |  |  |  |
| Symbol | Type | Numberot dxes, Spacid speiticaion |  |
|  |  | Standard | $\begin{array}{\|l\|} \hline \text { With STO } \\ \text { sub-function } \end{array}$ |
| 5 | Parallel input (NPN) | $\bullet$ |  |
| 6 | Parallel input (PNP) | $\bullet$ |  |
| E | EtherCAT | $\bullet$ | $\bullet$ |
| 9 | EtherNet/PTM | - | $\bullet$ |
| P | PROFINET | $\bullet$ | $\bullet$ |
| D | DeviceNete ${ }^{\text {® }}$ | $\bullet$ |  |
| L | IO-Link | $\bullet$ | - |
| M | CC-Link | $\bullet$ |  |


| Symbol | Type | Applicable interface |
| :---: | :---: | :---: |
| Nil | Without accessory | - |
| $\mathbf{S}$ | Straight type communication plug connector | DeviceNet ${ }^{\circledR}$ |
| $\mathbf{T}$ | T-branch type communication plug connector | CC-Link Ver. 1.10 |
| $\mathbf{1}$ | I/O cable $(1.5 \mathrm{~m})$ | Parallel input (NPN) |
| $\mathbf{3}$ | I/O cable $(3 \mathrm{~m})$ |  |
| $\mathbf{5}$ | I/O cable $(5 \mathrm{~m})$ |  |

## $L E C \square$ Series (For details, reier to page 301.)



| 10 Controller/Driver type*5 |  |  |
| :---: | :---: | :---: |
| Nil | Without controller/driver |  |
| 6N | LECA6 | NPN |
| 6P | (Step data input type) | PNP |
| 1N | LECP1*6 | NPN |
| 1P | (Programless type) | PNP |
| AN | LECPA*6 * | NPN |
| AP | (Pulse input type) | PNP |

11 I/O cable length ${ }^{* 8}$

| Nil | (Without communication plublug connector) |
| :---: | :---: |
| $\mathbf{1}$ | 1.5 m |
| $\mathbf{3}$ | $3 \mathrm{~m}^{* 9}$ |
| $\mathbf{5}$ | $5 \mathrm{~m}^{* 9}$ |

12 Controller/Driver mounting

| Nil | Screw mounting |
| :---: | :---: |


| Nil | Screw mounting |
| :---: | :---: |
| $\mathbf{D}$ | DIN rail*10 |

*1 Please contact SMC for non-standard strokes as they are produced as special orders.
*2 Refer to the body mounting example in the Web Catalog for the mounting method.
*3 Produced upon receipt of order (Robotic cable only)
*4 The standard cable should only be used on fixed parts. For use on moving parts, select the robotic cable.
Refer to the Web Catalog if only the actuator cable is required.
*5 For details on controllers/drivers and compatible motors, refer to the compatible controllers/drivers on the next page.
*6 Only available for the motor type "Step motor"
*7 When pulse signals are open collector, order the current limiting resistor (LEC-PA-R- $\square$ ) separately. (Refer to the Web Catalog.)

## $\triangle$ Caution

## [CE/UKCA-compliant products]

(1) EMC compliance was tested by combining the electric actuator LEF series and the controller LEC/JXC series.
The EMC depends on the configuration of the customer's control panel and the relationship with other electrical equipment and wiring. Therefore, compliance with the EMC directive cannot be certified for SMC components incorporated into the customer's equipment under actual operating conditions. As a result, it is necessary for the customer to verify compliance with the EMC directive for the machinery and equipment as a whole.
(2) For the incremental (servo motor 24 VDC) specification, EMC compliance was tested by installing a noise filter set (LEC-NFA). Refer to the Web Catalog for the noise filter set. Refer to the LECA series Operation Manual for installation.

## [UL-compliant products (For the LEC series)]

When compliance with UL is required, the electric actuator and controller/ driver should be used with a UL1310 Class 2 power supply.
*8 When "Without controller/driver" is selected for controller/driver types, I/O cable cannot be selected. If an I/O cable is required, order the cable separately for each series. (For details, refer to the Web Catalog.)
*9 When "Pulse input type" is selected for controller/driver types, pulse input usable only with differential. Only 1.5 m cables usable with open collector
*10 The DIN rail is not included. It must be ordered separately.
*11 Select "Nil" for anything other than DeviceNet ${ }^{\circledR}$, CC-Link, or parallel input.
Select "Nil," "S," or "T" for DeviceNet ${ }^{\circledR}$ or CC-Link.
Select "Nil," "1," "3," or " 5 " for parallel input.

## The actuator and controller/driver are sold as a package.

Confirm that the combination of the controller/driver and actuator is correct.
<Check the following before use.>
(1) Check the actuator label for the model number (after "25A-"). This number should match that of the controller/driver.
(2) Check that the Parallel I/O configuration matches (NPN or PNP).


* Refer to the Operation Manual for using the products. Please download it via our website: https://www.smcworld.com


## 25A-LEFS Series

## Compatible Controllers/Drivers

| Type | Step data input type | Step data input type | Programless type | Pulse input type |
| :---: | :---: | :---: | :---: | :---: |
| Series | $\begin{aligned} & \text { JXC51 } \\ & \text { JXC61 } \end{aligned}$ | LECA6 | LECP1 | LECPA |
| Features | Parallel I/O | Parallel I/O | Capable of setting up operation (step data) without using a PC or teaching box | Operation by pulse signals |
| Compatible motor | Step motor (Servo/24 VDC) | Servo motor (24 VDC) | Step (Servo/ | motor <br> 4 VDC) |
| Max. number of step data |  | ints | 14 points | - |
| Power supply voltage | 24 VDC |  |  |  |


| Type | EtherCAT direct input type | EtherCAT direct input type with STO sub-function | EtherNet/IPTM direct input type | EtherNetIIPTM direct input type with STO sub-function | PROFINET direct input type | PROFINET direct input type with STO sub-function | DeviceNet ${ }^{\circledR}$ direct input type | IO-Link direct input type | 10-Link direct input type with STO sub-function | CC-Link direct input type |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Series | JXCE1 | JXCEF | JXC91 | JXC9F | JXCP1 | JXCPF | JXCD1 | JXCL1 | JXCLF | JXCM1 |
| Features | EtherCAT direct input | EtherCAT direct input with STO sub-function | EtherNet//PTM direct input | EtherNet/IPTM direct input with STO sub-function | PROFINET direct input | PROFINET direct input with STO sub-function | DeviceNet ${ }^{\circledR}$ direct input | IO-Link direct input | IO-Link direct input with STO sub-function | CC-Link direct input |
| Compatible motor | Step motor (Servo/24 VDC) |  |  |  |  |  |  |  |  |  |
| Max. number of step data | 64 points |  |  |  |  |  |  |  |  |  |
| Power supply voltage | 24 VDC |  |  |  |  |  |  |  |  |  |

# High Performance Slider Type <br> Ball Screw Drive seconderveaiey compaitiole 

## How to Order



For details on controllers, refer to the next page.
0 Accuracy

| Nil | Basic type |
| :---: | :---: |
| $\mathbf{H}$ | High-precision type |


| 2 Size |
| :---: |
| 16 |
| 25 |
| 32 |
| 40 |

(3) Motor mounting position

| Nil | In-line |
| :---: | :---: |
| $\mathbf{R}$ | Right side parallel |
| $\mathbf{L}$ | Left side parallel |

Motor type

| Symbol | Type | Applicable size |  |  |  | Compatible controllers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 25A-LEFS16 | 25A-LEFS25 | 25A-LEFS32 | 25A-LEFS40 |  |
| G | High performance (Battery-less absolute) | - | - | - | - | JXC5H <br> JXC6H <br> JXCEH <br> JXC9H <br> JXCPH |


| 6 Stroke ${ }^{* 1}$ [mm] |  |  |
| :---: | :---: | :---: |
| Stroke | Note |  |
|  | Size | Applicable stroke |
| $\begin{aligned} & 50 \text { to } \\ & 500 \end{aligned}$ | 16 | $\begin{aligned} & 50,100,150,200,250,300,350,400 \\ & 450,500 \end{aligned}$ |
| $\begin{aligned} & 50 \text { to } \\ & 800 \end{aligned}$ | 25 | 50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800 |
| $\begin{aligned} & 50 \text { to } \\ & 1000 \end{aligned}$ | 32 | $\begin{aligned} & 50,100,150,200,250,300,350,400 \\ & 450,500,550,600,650,700,750,800 \\ & 850,900,950,1000 \end{aligned}$ |
| $\begin{aligned} & 150 \text { to } \\ & 1200 \end{aligned}$ | 40 | 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1000, 1100, 1200 |

7 Motor option

| Nil | Without option |
| :---: | :---: |
| B | With lock |

(9) Actuator cable type/length
Robotic cable

| Nil | None | R8 | $8^{* 3}$ |
| :---: | :---: | :---: | :---: |
| R1 | 1.5 | RA | $10^{* 3}$ |
| R3 | 3 | RB | $15^{* 3}$ |
| R5 | 5 | RC | $20^{* 3}$ |

Replacement Parts/Grease Pack

| Applied portion | Order no. |
| :---: | :---: |
| Ball screw | GR-D-005 $(5 \mathrm{~g})$ |
| Rail guide | GR-D-010 $(10 \mathrm{~g})$ |


| Symbol | 25A-LEFS16 | 25A-LEFS25 | 25A-LEFS32 | 25A-LEFS40 |
| :---: | :---: | :---: | :---: | :---: |
| $\mathbf{H}$ | - | 20 | 24 | 30 |
| $\mathbf{A}$ | 10 | 12 | 16 | 20 |
| $\mathbf{B}$ | 5 | 6 | 8 | 10 |



* Copper and zinc materials are used for the motors, cables, controllers/drivers.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

10 Controller

*1 Please contact SMC for non-standard strokes as they are produced as special orders.
*2 For details on the mounting method, refer to page 280.
*3 Produced upon receipt of order
*4 The DIN rail is not included. It must be ordered separately.

## $\triangle$ Caution

## [CE/UKCA-compliant products]

EMC compliance was tested by combining the electric actuator LEF series and the controller JXC series.
The EMC depends on the configuration of the customer's control panel and the relationship with other electrical equipment and wiring. Therefore, compliance with the EMC directive cannot be certified for SMC components incorporated into the customer's equipment under actual operating conditions. As a result, it is necessary for the customer to verify compliance with the EMC directive for the machinery and equipment as a whole.

## Trademark

EtherNet/IP® is a registered trademark of ODVA, Inc.
EtherCAT ${ }^{\circledR}$ is registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany.

## The actuator and controller are sold as a package.

Confirm that the combination of the controller and actuator is correct.
<Check the following before use.>
*1 Check the actuator label for the model number (after "25A-"). This number should match that of the controller/driver.


* Refer to the Operation Manual for using the products.

Please download it via our website: https://www.smcworld.com

| Type | Step data input type | EtherCAT direct input type | EtherNet/IPTM direct input type | PROFINET direct input type |
| :---: | :---: | :---: | :---: | :---: |
| Series | JXC5H JXC6H | JXCEH | JXC9H | JXCPH |
| Features | Parallel I/O | EtherCAT direct input | EtherNet//Pтм direct input | PROFINET direct input |
| Compatible motor | Step motor 24 VDC |  |  |  |
| Max. number of step data | 64 points |  |  |  |
| Power supply voltage | 24 VDC |  |  |  |

High Performance Slider Type
 25A-LEFS $\square F$ Series 25A-LEFS16, 25, 32, 40


For details on controllers, refer to the next page.

Accuracy

| Nil | Basic type |
| :---: | :---: |
| $\mathbf{H}$ | High-precision type |

Motor mounting position
Nil $\quad$ In-line secondary batteries

Lead [mm]
Symbol 25A-LEFS16 25A-LEFS25 25A-LEFS32 25 A-LEFS40

| $\mathbf{H}$ | - | 20 | 24 | 30 |
| :---: | :---: | :---: | :---: | :---: |
| $\mathbf{A}$ | 10 | 12 | 16 | 20 |
| $\mathbf{B}$ | 5 | 6 | 8 | 10 |

Positioning pin hole

| Nil | Housing B bottom*2 | $\square$ <br> Housing B bottom |
| :---: | :---: | :---: |
| K | Body bottom 2 locations |  |

## Actuator cable type/length*4

|  |  |  |  |  |  |
| :--- | :---: | :---: | :--- | :--- | :--- |
| Standard cable [m] | Robotic cable |  |  | $[\mathrm{m}]$ |  |
| Nil | None |  |  |  |  |
| S1 | 1.5 |  |  |  |  |
| S3 | 3 |  |  |  |  |
| R1 | 1.5 | RA | $10^{* 3}$ |  |  |
| S5 | 5 |  |  |  |  |
| R3 | 3 | RB | $15^{* 3}$ |  |  |
| R5 | 5 | RC | $20^{* 3}$ |  |  |
| R8 | $8^{* 3}$ |  |  |  |  |

Motor type

| Symbol | Type | Applicable size |  |  |  | Compatible <br> controllers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 25A-LEFS16 | 25A-LEFS25 | 25A-LEFS32 | 25A-LEFS40 |

6 Stroke*1[mm]

| Stroke | Note |  |
| :--- | :---: | :--- |
|  | Size | Applicable stroke |
| $\mathbf{5 0}$ to | $\mathbf{1 6}$ | $50,100,150,200,250,300,350,400$, <br> 450,500 |
| $\mathbf{5 0 0}$ to | $\mathbf{2 5}$ | $50,100,150,200,250,300,350,400$, <br> $450,500,550,600,650,700,750,800$ |
| $\mathbf{8 0 0}$ | $\mathbf{5 0}$ to | $\mathbf{3 2}$ |
| $\mathbf{1 0 0 0}$ | $50,100,150,200,250,300,350,400$, <br> $450,500,550,600,650,700,750,800$, <br> $850,900,950,1000$ |  |
| $\mathbf{1 5 0}$ to | $\mathbf{4 0}$ | $150,200,250,300,350,400,450,500$, <br> $550,600,650,700,750,800,850,900$, <br> $950,1000,1100,1200$ |
| $\mathbf{1 2 0 0}$ |  |  |

7 Motor option

| Nil | Without option |
| :---: | :---: |
| $\mathbf{B}$ | With lock |

Replacement Parts/Grease Pack

| Applied portion | Order no. |
| :---: | :---: |
| Ball screw | GR-D-005 $(5 \mathrm{~g})$ |
| Rail guide | GR-D-010 $(10 \mathrm{~g})$ |

* Copper and zinc materials are used for the motors, cables, controllers/drivers.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

10 Controller
-Communication plug connector, I/O cable*6

| Symbol | Type | Applicable interface |
| :---: | :---: | :---: |
| Nil | Without accessory | - |
| $\mathbf{1}$ | I/O cable $(1.5 \mathrm{~m})$ | Parallel input (NPN) |
| $\mathbf{3}$ | I/O cable $(3 \mathrm{~m})$ |  |
| $\mathbf{5}$ | I/O cable $(5 \mathrm{~m})$ |  |

1 Please contact SMC for non-standard strokes as they are produced as special orders.
*2 For details on the mounting method, refer to page 280.
*3 Produced upon receipt of order (Robotic cable only)
*4 The standard cable should only be used on fixed parts.
For use on moving parts, select the robotic cable.

## $\triangle$ Caution

[CE/UKCA-compliant products]
EMC compliance was tested by combining the electric actuator LEF series and the controller JXC series.
The EMC depends on the configuration of the customer's control panel and the relationship with other electrical equipment and wiring. Therefore, compliance with the EMC directive cannot be certified for SMC components incorporated into the customer's equipment under actual operating conditions. As a result, it is necessary for the customer to verify compliance with the EMC directive for the machinery and equipment as a whole.

## Trademark

EtherNet/IP® is a registered trademark of ODVA, Inc.
EtherCAT ${ }^{\circledR}$ is registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany.
The EMC depends on the conniguration or the customer's control panel Beckhof Automation GmbH, Germany.
*5 The DIN rail is not included. It must be ordered separately.
*6 Select "Nil" for anything other than parallel input.
Select "Nil," "1," "3," or " 5 " for parallel input.

## The actuator and controller are sold as a package.

Confirm that the combination of the controller and actuator is correct.
<Check the following before use.>
*1 Check the actuator label for the model number (after " $25 A-$-"), This number should match that of the controller/driver.

*1

* Refer to the Operation Manual for using the products. Please download it via our website: https://www.smcworld.com


## Compatible Controllers

| Type | Step data input type | EtherCAT direct input type | EtherNet//PTM direct input type | PROFINET direct input type |
| :---: | :---: | :---: | :---: | :---: |
| Series | JXC5H JXC6H | JXCEH | JXC9H | JXCPH |
| Features | Parallel I/O | EtherCAT direct input | EtherNet/IPTM direct input | PROFINET direct input |
| Compatible motor | Step motor 24 VDC | Step motor (Servo/24 VDC) |  |  |
| Max. number of step data | 64 points | 64 points |  |  |
| Power supply voltage | 24 VDC | 24 VDC |  |  |

## Slider Type Ball Screw Drive

## 25A-LEFS Series 25A-LEFS25, 32, 40

## Refer to the Web Catalog for model selection.

## LECY $\square$ Series $\downarrow$ p. 304

How to Order

RoHS

(1) Accuracy

| Nil |  |
| :---: | :---: |
| Hasic type | High-precision type |


| 2 Size |
| :--- |
| 25 |
| 32 |
| 40 |

3) | Motor mounting |
| :--- |
| position |

| Nil | In-line |
| :---: | :---: |
| R | Right side parallel |
| L | Left side parallel |


| (5) Lead [mm] |  |  |  |
| :---: | :---: | :---: | :---: |
| Symbol | $\begin{gathered} \text { 25A- } \\ \text { LEFS25 } \\ \hline \end{gathered}$ | $\begin{gathered} 25 A- \\ \text { LEFS32 } \end{gathered}$ | $\begin{gathered} 25 A- \\ \text { LEFS40 } \end{gathered}$ |
| H | 20 | 24 | 30 |
| A | 12 | 16 | 20 |
| B | 6 | 8 | 10 |



* For details, refer to the applicable stroke table below.

| (4) Motor type |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Symbol | Type | Output [W] | $\overline{s i z e}$ | $\begin{array}{\|c\|} \hline \text { Diver type } \\ \hline \end{array}$ | Compatible drivers |
| S2*1 | AC servo motor (Incremental encoder) | 100 | 25 | A1/A2 | LECSA■-S1 |
| S3 |  | 200 | 32 | A1/A2 | LECSAD-S3 |
| S4 |  | 400 | 40 | A2 | LECSA2-S4 |
| T6*2 | AC servo motor (Absolute encoder) |  |  | B2 | LECSB2-T5 |
|  |  | 100 | 25 | C2 | LECSC2-T5 |
|  |  |  |  | S2 | LECSS2-T5 |
| T7 |  |  |  | B2 | LECSB2-T7 |
|  |  | 200 | 32 | C2 | LECSC2-T7 |
|  |  |  |  | S2 | LECSS2-T7 |
| T8 |  | 400 | 40 | B2 | LECSB2-T8 |
|  |  |  |  | C2 | LECSC2-T8 |
|  |  |  |  | S2 | LECSS2-T8 |

*1 For motor type S2, the compatible driver part number suffix is S 1 . *2 For motor type T6, the compatible driver part number is LECS $\square 2-T 5$.
8 Positioning pin hole

| Nil | Housing B bottom*1 | Housing B bottom |
| :---: | :---: | :---: |
| K | Body bottom 2 locations |  |

*1 Refer to the body mounting example for the mounting method. (Refer to the Web Catalog.)

## (10) Cable length*1 [ m ]

| $\mathbf{N i l}$ | Without cable |
| :---: | :---: |
| $\mathbf{2}$ | 2 |
| $\mathbf{5}$ | 5 |
| $\mathbf{A}$ | 10 |

*1 The length of the encoder, motor, and lock cables are the same.
(9) Cable type ${ }^{* 1 * 2}$

| Nil | Without cable |
| :---: | :---: |
| S | Standard cable |
| $\mathbf{R}$ | Robotic cable |

*1 A motor cable and encoder cable are included with the product. (A lock cable is also included if motor option " B : With lock" is selected.)
*2 Standard cable entry direction is
Parallel: (A) Axis side
In-line: (B) Counter axis side

## 11 Driver type

|  | Compatible <br> drivers | Power supply <br> voltage $[V]$ | Size |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $n$ | 25 | $\mathbf{3 2}$ | $\mathbf{4 0}$ |  |  |
| Nil | Without driver | - | $\bullet$ | $\bullet$ | $\bullet$ |
| A1 | LECSA1-S $\square$ | 100 to 120 | $\bullet$ | $\bullet$ | - |
| A2 | LECSA2-S $\square$ | 200 to 230 | $\bullet$ | $\bullet$ | $\bullet$ |
| B2 | LECSB2-T $\square$ | 200 to 240 | $\bullet$ | $\bullet$ | $\bullet$ |
| C2 | LECSC2-T $\square$ | 200 to 230 | $\bullet$ | $\bullet$ | $\bullet$ |
| S2 | LECSS2-T $\square$ | 200 to 240 | $\bullet$ | $\bullet$ | $\bullet$ |

* When a driver type is selected, a cable is
included. Select the cable type and cable length. Example) S2S2: Standard cable (2 m) + Driver (LECSS2) S2: Standard cable (2 m) Nil: Without cable and driver

12 I/O cable length [m]*3

*3 When "Nil: Without driver" is selected for the driver type, only "Nil: Without cable" can be selected.
If an I/O cable is required, refer to the "Options" page in the Web Catalog.

Applicable Stroke Table e: Standard

| Stroke <br> $[\mathrm{mm}]$ <br> Model | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1100 | 1200 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $25 A-L E F S 25$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |  | $\bullet$ | - | - | - | - | - | - |
| $25 A-L E F S 32$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | - | - |
| $25 A-L E F S 40$ | - | - | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |

* Please contact SMC for non-standard strokes as they are produced as special orders.

Compatible Drivers*1 * The 25A- series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catalog.

| Driver type | Pulse input type/ Positioning type | Pulse input type | CC-Link direct input type |  |
| :---: | :---: | :---: | :---: | :---: |
| Series | LECSA | LECSB-T | LECSC-T | LECSS-T |
| Number of point tables | Up to 7 | Up to 255 | Up to 255 (2 stations occupied) | - |
| Pulse input | $\bigcirc$ | $\bigcirc$ | - | - |
| Applicable network | - | - | CC-Link | SSCNETIII/H |
| Control encoder | Incremental 17-bit encoder | Absolute 22-bit encoder | Absolute 18-bit encoder | Absolute 22-bit encoder |
| Communication function | USB communication | USB communication, RS422 communication | USB communication, RS422 communication | USB communication |
| Power supply voltage [V] | $\begin{array}{\|l\|} \hline 100 \text { to } 120 \text { VAC }(50 / 60 \mathrm{~Hz}) \\ 200 \text { to } 230 \text { VAC }(50 / 60 \mathrm{~Hz}) \\ \hline \end{array}$ | $\begin{gathered} 200 \text { to } 240 \text { VAC } \\ (50 / 60 \mathrm{~Hz}) \\ \hline \end{gathered}$ | $\begin{gathered} 200 \text { to } 230 \text { VAC } \\ (50 / 60 \mathrm{~Hz}) \\ \hline \end{gathered}$ | $\begin{gathered} 200 \text { to } 240 \text { VAC } \\ (50 / 60 \mathrm{~Hz}) \\ \hline \end{gathered}$ |


| Replacement Parts/Grease Pack |  |
| :---: | :---: |
| Applied portion | Order no. |
| Ball screw | GR-D-005 $(5 \mathrm{~g})$ |
| Rail guide | GR-D-010 $(10 \mathrm{~g})$ |

*1 Copper and zinc materials are used for the motors, cables, controllers/drivers.

# Slider Type Ball Screw Drive semanavesieycomeriee 

## 25A-LEFS Series 25A-LEFS25, 32, 40

Refer to the Web Catalog for model selection.
LECS $\square$ Series $\downarrow$ p. 303

Refer to the "CE/UKCA/
UL-compliance List" in
the Web Catalog.


| 3 Motor mounting position |  |
| :---: | :---: |
| Nil | In-line |
| R | Right side parallel |
| L | Left side parallel |

5 Lead [mm]

| Symbol | 25A-LEFS25 | 25A-LEFS32 | 25A-LEFS40 |
| :---: | :---: | :---: | :---: |
| H | 20 | 24 | 30 |
| A | 12 | 16 | 20 |
| B | 6 | 8 | 10 |



* For details, refer to the applicable stroke table below.

*1 Refer to the body mounting example in the Web Catalog for the mounting method.


Applicable Stroke Table
1 The length of the encoder, motor, and lock cables are the same.

## 4 Motor type

| Symbol | Type | Output [W] | $\begin{gathered} 2 \\ \text { Size } \end{gathered}$ | Driver type | Compatible drivers |
| :---: | :---: | :---: | :---: | :---: | :---: |
| V6*1 | AC servo motor (Absolute encoder) | 100 | 25 | M2 | LECYM2-V5 |
|  |  |  |  | U2 | LECYU2-V5 |
| V7 |  | 200 | 32 | M2 | LECYM2-V7 |
|  |  |  |  | U2 | LECYU2-V7 |
| V8 |  | 400 | 40 | M2 | LECYM2-V8 |
|  |  |  |  | U2 | LECYU2-V8 |

*1 For motor type V 6 , the compatible driver part number suffix is V 5 .

| 10 Cable length*1 [m] |  |
| :---: | :---: |
| $\mathbf{N i l}$ | Without cable |
| 3 | 3 |
| $\mathbf{5}$ | 5 |
| $\mathbf{A}$ | 10 |
| $\mathbf{C}$ | 20 |


| Model | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1100 | 1200 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 25A-LEFS25 | - | $\bigcirc$ | $\bigcirc$ | $\bullet$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | - | - | $\bigcirc$ | $\bigcirc$ | $\bullet$ | - | - | - | - | - | - |
| 25A-LEFS32 | - | - | $\bigcirc$ | $\bullet$ | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bullet$ | - | $\bullet$ | $\bullet$ | - | - | - |
| 25A-LEFS40 | - | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | - | - | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | - | - | $\bigcirc$ |

(9) Cable type*1*2

| $\mathbf{N i l}$ | Without cable |
| :---: | :---: |
| $\mathbf{S}$ | Standard cable |
| $\mathbf{R}$ | Robotic cable |

*1 A motor cable and encoder cable are included with the product. (A lock cable is also included if motor option "B: With lock" is selected.)
*2 Standard cable entry direction is Parallel: (A) Axis side In-line: (B) Counter axis side
(12 Io cable length $[\mathrm{m}]^{* 3}$

| Nil | Without cable |
| :---: | :---: |
| $\mathbf{H}$ | Without cable (Connector only) |
| $\mathbf{1}$ | 1.5 |

*3 When "Nil: Without driver" is selected for the driver type, only "Nil: Without cable" can be selected.
Refer to the Web Catalog if an I/O cable is required.

* Please contact SMC for non-standard strokes as they are produced as special orders.


## Compatible Drivers

| Driver type | MECHATROLINK-II type | RMECHATROLINK-III type |
| :---: | :---: | :---: |
| Series | LECYM | LECYU |
| Applicable network | MECHATROLINK-II | MECHATROLINK-III |
| Control encoder | Absolute 20-bit encoder |  |
| Communication device | USB communication, RS-422 communication |  |
| Power supply voltage [V] | 200 to 230 VAC (50/60 Hz) |  |

* Copper and zinc materials are used for the motors, cables, controllers/drivers.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

Replacement Parts/Grease Pack

| Applied portion | Order no. |
| :---: | :---: |
| Ball screw | GR-D-005 $(5 \mathrm{~g})$ |
| Rail guide | GR-D-010 $(10 \mathrm{~g})$ |

# Electric Actuator/Slider Type Ball Screw Drive semenf Biep compiaie 25A-LEFS Series 

How to Order

## 25A-LEFS 25 R AZ A- 100 K <br> Series compatible with secondary batteries


5 Lead [mm]

| Symbol | 25A-LEFS25 | 25A-LEFS32 |
| :---: | :---: | :---: |
| 25A-LEFS40 |  |  |
| A | 20 | 24 |
| 30 |  |  |
| A | 12 | 16 |
| B | 6 | 8 |


| 6 Stroke [mm] |  |  |
| :---: | :---: | :---: |
| 50 | 50 |  |
| to | to |  |
| 1200 | 1200 |  |

## 7 Positioning pin hole

| Nil | Housing B bottom*1 |  |
| :---: | :---: | :---: |
| K | Body bottom 2 locations |  |

## Replacement Parts/Grease Pack

| Applied portion | Order no. |
| :---: | :---: |
| Ball screw | GR-D-005 $(5 \mathrm{~g})$ |
| Rail guide | GR-D-010 $(10 \mathrm{~g})$ |

*1 Refer to the body mounting example on the Web Catalog for the mounting method.

## Applicable Stroke Table

- : Standard

| $\mathrm{Ma}_{\text {Model }}^{\prime} \quad \text { Stroke }$ | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1100 | 1200 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 25A-LEFS25 | - | $\bigcirc$ | $\bullet$ | $\bullet$ | - | - | $\bullet$ | $\bullet$ | $\bullet$ | - | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |  |  |  |  |  |  |
| 25A-LEFS32 | - | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bigcirc$ | $\bigcirc$ | $\bullet$ |  |  |
| 25A-LEFS40 |  |  | - | - | - | - | - | - | - | $\bullet$ | - | - | - | - | $\bullet$ | - | $\bigcirc$ | - | $\bullet$ | - | - | - |

* Please contact SMC for non-standard strokes as they are produced as special orders.

Compatible Motors and Mounting Types*5

| Applicable motor model |  | Size/Mounting type |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Manufacturer | Series | 25 |  |  |  |  |  | 32/40 |  |  |  |  |  |  |  |  |
|  |  | NZ | NY | NX | NM1 | NM2 | NM3 | NZ | NY | NX | NW | NV | NU | NT | NM1 | NM2 |
| Mitsubishi Electric Corporation | MELSERVO JN/J4/J5 | $\bigcirc$ | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - |
| YASKAWA Electric Corporation | £-V/7/X | - *4 | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - |
| SANYO DENKI CO., LTD. | SANMOTION R | - | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - |
| OMRON Corporation | OMNUC G5/1S | $\bigcirc$ | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Panasonic Corporation | MINAS A5/A6 |  | $\bigcirc$ | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - |
| FANUC CORPORATION | $\beta$ is (-B) | - | - | - | - | - | - | $\underset{(B 1 \text { only })}{\bullet}$ | - | - | $\bigcirc$ | - | - | - | - | - |
| NIDEC SANKYO CORPORATION | S-FLAG | $\bigcirc$ | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - |
| KEYENCE CORPORATION | SV/SV2 | -*4 | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - |
| FUJI ELECTRIC CO., LTD. | ALPHA7 | $\bigcirc$ | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MinebeaMitsumi Inc. | Hybrid stepping motors | - | - | - | - *1 | - | * 3 | - | - | - | - | - | - | - | *2 | - |
| Shinano Kenshi Co., Ltd. | CSB-BZ | - | - | - | * * | - | * ${ }^{\text {* }}$ | - | - | - | - | - | - | - | - | - |
| ORIENTAL MOTOR Co., Ltd. | $\alpha$ STEP AR/AZ | - | - | - | - |  | - | - | - | - | - | - | - | - | - | - *2 |
| FASTECH Co., Ltd. | Ezi-SERVO | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - | - | -*2 | - |
| Rockwell Automation, Inc. (Allen-Bradley) | Kinetix MP/VP/TL | $\underset{(T L \text { only })}{\bullet}$ | - | - | - | - | - | - | - | $\begin{array}{\|c\|} \hline \boldsymbol{\bullet}^{* 1} \\ \text { (MP/VP } \\ \text { only) } \\ \hline \end{array}$ | - | - | - |  | - | - |
| Beckhoff Automation GmbH | AM 30/31/80/81 | $\bigcirc$ | - | - | - | - | - | - | - | $\begin{gathered} \mathbf{e}^{* 1} \\ (80 / 81 \\ \text { only) } \end{gathered}$ | - | $\left\|\begin{array}{c} \bullet * 1 \\ (30 \text { only }) \end{array}\right\|$ | $\left(\begin{array}{c} * 2 \\ (31 \text { only }) \end{array}\right.$ | - | - | - |
| Siemens AG | SIMOTICS S-1FK7 | - | - | $\bigcirc$ | - | - | - | - | - | - *1 | - | - | - | - | - | - |
| Delta Electronics, Inc. | ASDA-A2 | $\bigcirc$ | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| ANCA Motion | AMD2000 | $\bigcirc$ | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - |

*1 Motor mounting position: In-line only *2 Only size 32 is available when the motor mounting position is right (or left) side parallel. *3 Motor mounting position: Right (or left) side parallel only *4 For some motors, the connector may protrude from the motor body. Be sure to check for interference with the mounting surface before selecting a motor.
*5 The compatible motors and mounting types are typical examples. Select the mounting type after referring to the "Motor Mounting, Applicable Motor Dimensions" tables on the "Dimensions" pages. (4) 304-1

# High Rigidity Slider Type  

## LECY $\square$ Series $>$ p. 306

Reier to the "CEUKCAUL-compliance Lsst in the Web Catalog. How to Order


40


| 3 Motor type |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Symbol | Type | Output [W] | $\begin{array}{\|c\|} \hline \boldsymbol{2} \\ \hline \end{array}$ |  | Compatible drivers drivers |
| S2*1 | AC servo motor(Incremental encoder) | 100 | 40 | A1/A2 | LECSAD-S1 |
| S3 |  | 200 | 63 | A1/A2 | LECSAD-S3 |
| T6*2 | AC servo motor(Absolute encoder) |  |  | B2 | LECSB2-T5 |
|  |  | 100 | 40 | C2 | LECSC2-T5 |
|  |  |  |  | S2 | LECSS2-T5 |
| T7 |  | 200 | 63 | B2 | LECSB2-T7 |
|  |  |  |  | C2 | LECSC2-T7 |
|  |  |  |  | S2 | LECSS2-T7 |

*1 For motor type S2, the compatible driver part number suffix is S 1 .
*2 For motor type T6, the compatible driver part number is LECS $\square 2-\mathrm{T} 5$.

Lead [mm]

| Symbol | 25A-LEJS40 | 25A-LEJS63 |
| :---: | :---: | :---: |
| $\mathbf{H}$ | 24 | 30 |
| $\mathbf{A}$ | 16 | 20 |
| $\mathbf{B}$ | 8 | 10 |

(5) Stroke [mm]*3

200 *3 Refer to the
to
1500 applicable stroke table for details.

7 Cable type $* 5, * 6, * 7$

| Nil | Without cable |
| :---: | :---: |
| S | Standard cable |
| $\mathbf{R}$ | Robotic cable |

*6 A motor cable and encoder cable are included with the product. (A lock cable is also included if motor option "B: With lock" is selected.)
*7 Standard cable entry direction is "(A) Axis side."
8 Cable length $[\mathrm{m}] * 5, * 8$

| Nil | Without cable |
| :---: | :---: |
| 2 | 2 |
| 5 | 5 |
| $\mathbf{A}$ | 10 |

*8 The length of the motor, encoder, and lock cables are the same.
10 I/O cable length [m]*9

| $\mathbf{N i I}$ | Without cable |
| :---: | :---: |
| $\mathbf{H}$ | Without cable (Connector only) |
| $\mathbf{1}$ | 1.5 |

*9 When "Nil: Without driver" is selected for the driver type, only "Nil: Without cable" can be selected. Refer to the Web Catalog if an I/O cable is required.
9 Driver type $* 5$

| Nil | Compatible drivers | Power supply voltage [V] |
| :---: | :---: | :---: |
| W1 | Without driver | - |
| A2 | LECSSA1-S $\square$ | 100 to 120 |
| B2 | LECSB2-T $\square$ | 200 to 230 |
| C2 | LECSC2-T $\square$ | 200 to 240 |
| S2 | LECSS2-T $\square$ | 200 to 230 |

*5 When a driver type is selected, a cable is included. Select the cable type and cable length.
Example)
S2S2: Standard cable (2 m) + Driver (LECSS2)
S2: Standard cable ( 2 m )
Nil: Without cable and driver

Applicable Stroke Table*4
: Standard

| Stroke <br> Model | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1200 | 1500 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 25A-LEJS40 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - |
| 25A-LEJS63 | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

*4 Please contact SMC for non-standard strokes as they are produced as special orders.

* The 25A- series specifications and dimensions are the same as those of the standard model.


## Compatible Drivers

|  | Pulse input type/ <br> Positioning type | Pulse input type | CC-Link direct <br> input type |
| :--- | :---: | :---: | :---: | :---: |
| Driver type |  |  |  |

[^80]
# High Rigidity Slider Type Ball Screw Drive semonavesialey conprive 

# 25A-LEJS Series LEJS40, 63 

## Refer to the Web Catalog for model selection.

LECS $\square$ Series $>$ p. 305

## How to Order

RoHS
Refer to the "CE
UL-compliance List" in
the Web Catalog.
(4) Lead [mm]

| Symbol | 25A-LEJS40 | 25A-LEJS63 |
| :---: | :---: | :---: |
| $\mathbf{H}$ | 24 | 30 |
| $\mathbf{A}$ | 16 | 20 |
| $\mathbf{B}$ | 8 | 10 |


| 200 | *3Refer to the <br> applicable stroke |
| :---: | :---: |
| to | and <br> table for details. |
| 1500 |  |

(9) Driver type *5

| Nil | Compatible drivers | Without driver |
| :---: | :---: | :---: | Power supply voltage [V] -7.

*5 When a driver type is selected, a cable is included.
Select the cable type and cable length.
Example)
S2S2: Standard cable (2 m) + Driver (LECSS2)
S2: Standard cable (2 m)
Nil: Without cable and driver

| 10 I/O cable length $[\mathrm{m}] * 9$ |  |
| :---: | :---: |
| Nil | Without cable |
| H | Without cable (Connector only) |
| 1 | 1.5 |

*9 When "Nil: Without driver" is selected for the driver type, only "Nil: Without cable" can be selected.

(3) Motor type *1

| Symbol | Type | Output <br> $[W]$ | 2 <br> Size | 9 <br> Driver type | Compatible <br> drivers*2 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| V6 | AC servo motor <br> (Absolute | 100 | 40 | M 2 | LECYM2-V5 |
|  |  | UEC |  |  |  |
| encoder) |  |  |  |  |  |

*1 For motor type V6, the compatible driver part number suffix is V 5 . *2 For details on the driver, refer to the Web Catalog.

| 8 Cable length [m] ${ }^{* 5, * 8}$ |
| :---: | :---: |
| $\mathbf{N i l}$ Without cable <br> $\mathbf{3}$ 3 <br> $\mathbf{5}$ 5 <br> $\mathbf{A}$ 10 <br> $\mathbf{C}$ 20 |

*8 The length of the motor, encoder, and lock cables are the same.

Cable type ${ }^{* 5, * 6, * 7}$

| Nil | Without cable |
| :---: | :---: |
| $\mathbf{S}$ | Standard cable |
| $\mathbf{R}$ | Robotic cable |

*6 A motor cable and encoder cable are included with the product. (A lock cable is also included if motor option " B : With lock" is selected.)
*7 Standard cable entry direction is " $(A)$ Axis side."

Refer to the Web Catalog if an I/O cable is required.

Applicable Stroke Table*4

| Applicable S | roke | abl |  |  |  |  |  |  |  | - | andard |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stroke <br> Model | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1200 | 1500 |
| 25A-LEJS40 | - | - | $\bigcirc$ | - | $\bigcirc$ | - | - | - | - | - | - |
| 25A-LEJS63 | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

*4 Please contact SMC for non-standard strokes as they are produced as special orders.

Solid state auto switches should be ordered separately. Click here for details on applicable auto switch models.
Applicable auto switches
D-M9N(V)-900, D-M9P(V)-900, D-M9B(V)-900 D-M9NW(V)-900, D-M9PW(V)-900, D-M9BW(V)-900

## Compatible Drivers

| Driver type | MECHATROLINK-II type | HMECHATROLINK-III type |
| :---: | :---: | :---: |
| Series | LECYM | LECYU |
| Applicable network | MECHATROLINK-II | MECHATROLINK-III |
| Control encoder | Absolute 20-bit encoder |  |
| Communication device | USB communication, RS-422 communication |  |
| Power supply voltage [V] | 200 to 230 VAC (50/60 Hz) |  |

* Copper and zinc materials are used for the motors, cables, controllers/drivers, and auto switch magnets.

Replacement Parts/Grease Pack

| Applied portion | Order no. |
| :---: | :---: |
| Ball screw |  |
| Linear guide | GR-D-005 $(5 \mathrm{~g})$ |
| Dust seal band | GR-D-010 $(10 \mathrm{~g})$ |
| (Back side only) |  |

# Electric Actuator/High Rigidity Slider Type  

How to Order


* Please contact SMC for non-standard strokes as they are produced as special orders.

Solid state auto switches should be ordered separately. Click here for auto switch details.

Applicable auto switches
D-M9N(V)-900, D-M9P(V)-900, D-M9B(V)-900 D-M9NW(V)-900, D-M9PW(V)-900, D-M9BW(V)-900

## Compatible Motors and Mounting Types*2

| Applicable motor model |  | Size/Mounting type |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Manufacturer | Series | 40 |  |  | 63 |  |  |  |  |  |  |
|  |  | NZ | NY | NX | NZ | NY | NX | NW | NV | NU | NT |
| Mitsubishi Electric Corporation | MELSERVO JN/J4/J5 | - | - | - | - | - | - | - | - | - | - |
| YASKAWA Electric Corporation | 上-V/7/X | - *1 | - | - | $\bigcirc$ | - | - | - | - | - | - |
| SANYO DENKI CO., LTD. | SANMOTION R | - | - | - | - | - | - | - | - | - | - |
| OMRON Corporation | OMNUC G5/1S | $\bigcirc$ | - | - | - | $\bigcirc$ | - | - | - | - | - |
| Panasonic Corporation | MINAS A5/A6 | (MHMF only) | $\bigcirc$ | - | - | - | - | - | - | - | - |
| FANUC CORPORATION | $\beta$ is (-B) | $\bigcirc$ | - | - | ( $\beta 1$ only) | - | - | $\bigcirc$ | - | - | - |
| NIDEC SANKYO CORPORATION | S-FLAG | - | - | - | $\bigcirc$ | - | - | - | - | - | - |
| KEYENCE CORPORATION | SV/SV2 | -*1 | - | - | $\bigcirc$ | - | - | - | - | - | - |
| FUJI ELECTRIC CO., LTD. | ALPHA7 | $\bigcirc$ | - | - | $\bigcirc$ | - | - | - | - | - | - |
| Rockwell Automation, Inc. (Allen-Bradley) | Kinetix MP/VP/TL | (TL only) | - | - | - | - | (MP/VP only) | - | - | - | (TL only) |
| Beckhoff Automation GmbH | AM 30/31/80/81 | - | - | - | - | - | (80/81 only) | - | (30 only) | (31 only) | - |
| Siemens AG | SIMOTICS S-1FK7 | - | - | - | - | - | $\bigcirc$ | - | - | - | - |
| Delta Electronics, Inc. | ASDA-A2 | $\bigcirc$ | - | - | $\bigcirc$ | - | - | - | - | - | - |
| ANCA Motion | AMD2000 | - | - | - | - | - | - | - | - | - | - |

*1 For some motors, the connector may protrude from the motor body. Be sure to check for interference with the mounting surface before selecting a motor.
*2 The compatible motors and mounting types are typical examples. Select the mounting type after referring to the "Motor Mounting, Applicable Motor Dimensions" tables on the "Dimensions" pages.

## Replacement Parts/Grease Pack

| Replacement Parts/Grease Pack |  |
| :---: | :---: |
| Applied portion | Order no. |
| Ball screw | GR-D-005 $(5 \mathrm{~g})$ |
| Linear guide |  |
| Dust seal band (Back side only) | GR-D-010 $(10 \mathrm{~g})$ |

* The auto switch magnet contains copper and/or zinc.
* The 25A- series specifications and dimensions are the same as those of the standard model.
Dust seal band (Back side only)
For details, refer to the Web Catalog.

Rod Type smen liverimia


For details on controllers, refer to the next page.


| Symbol | Motor mounting position | Motor cover direction |
| :---: | :---: | :---: |
| Nil | Top side parallel | - |
| D | In-line | -*1 |
| D1 |  | Left*2 |
| D2 |  | Right*2 |
| D3 |  | Top*2 |
| D4 |  | Bottom*2 |


| 5 Stroke ${ }^{* 3}[\mathrm{~mm}]$ |  |  |
| :---: | :---: | :---: |
| Stroke | Note |  |
|  | Size | Applicable stroke |
| $\mathbf{3 0}$ to $\mathbf{3 0 0}$ | $\mathbf{1 6}$ | $30,50,100,150,200,250,300$ |
| $\mathbf{3 0}$ to $\mathbf{4 0 0}$ | $\mathbf{2 5}$ | $30,50,100,150,200,250,300$, <br> 350,400 |
| $\mathbf{3 0}$ to 500 | $\mathbf{3 2 / 4 0}$ | $30,50,100,150,200,250,300$, <br> $350,400,450,500$ |

Mounting*5

| Symbol | Type | Motor mounting position |  |
| :---: | :---: | :---: | :---: |
|  |  | Parallel | In-line |
| Nil | Ends tapped/ Body bottom tapped*6 | $\bigcirc$ | $\bigcirc$ |
| L | Foot | $\bigcirc$ | - |
| F | Rod flange*6 | *8 | $\bigcirc$ |
| G | Head flange*6 | *9 | - |
| D | Double clevis*7 | $\bigcirc$ | - |



## (9) <br> Actuator cable type/length

Robotic cable
Robotic cable

| Nil | None | R8 | $8^{* 10}$ |
| :---: | :---: | :---: | ---: |
| R1 | 1.5 | RA | $10^{* 10}$ |
| R3 | 3 | RB | $15^{* 10}$ |
| R5 | 5 | RC | $20^{* 10}$ |

Mounting Bracket Part Nos. for the 25A-Series

| Applicable size | Foot*1 | Flange | Double clevis |
| :---: | :---: | :---: | :---: |
| $\mathbf{1 6}$ | $25-$ LEY-L016 | $25-$ LEY-F016 | $25-$ LEY-D016 |
| $\mathbf{2 5}$ | $25-$ LEY-L025 | $25-$ LEY-F025 | $25-$ LEY-D025 |
| $\mathbf{3 2 , 4 0}$ | $25-$ LEY-L032 | $25-$ LEY-F032 | $25-$ LEY-D032 |

*1 When ordering foot brackets, order 2 pieces per actuator.
*2 Parts included with each type of bracket are as follows. Foot, Flange: Body mounting bolt, Double clevis: Clevis pin, Type C retaining ring for axis, Body mounting bolt

## Replacement Parts/Grease Pack

| Applied portion | Order no. |
| :---: | :---: |
| Piston rod | GR-D-005 $(5 \mathrm{~g})$ |
|  | GR-D-010 $(10 \mathrm{~g})$ |

Solid state auto switches should be ordered separately. Click here for auto switch details.

## Applicable auto switches

D-M9N(V)-900, D-M9P(V)-900, D-M9B(V)-900
D-M9NW(V)-900, D-M9PW(V)-900, D-M9BW(V)-900

* Copper and zinc materials are used for the motors, cables, controllers/drivers.
* The 25A-series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

*1 Sizes 25, 32, and 40 only
*2 Size 16 only
*3 Please contact SMC for non-standard strokes as they are produced as special orders.
*4 When "With lock/motor cover" is selected for the top side parallel motor type, the motor body will stick out from the end of the body for size 16 with strokes of 50 mm or less and size 40 with strokes of 30 mm or less. Check for interference with workpieces before selecting a model.
*5 The mounting bracket is shipped together with the product but does not come assembled.
*6 For the horizontal cantilever mounting of the rod flange, head flange, or ends tapped types, use the actuator within the following stroke range. - 25A-LEY25: 200 or less . 25A-LEY32/40: 100 or less

## $\triangle$ Caution

## [CE/UKCA-compliant products]

EMC compliance was tested by combining the electric actuator LEY series and the controller JXC series.
The EMC depends on the configuration of the customer's control panel and the relationship with other electrical equipment and wiring. Therefore, compliance with the EMC directive cannot be certified for SMC components incorporated into the customer's equipment under actual operating conditions. As a result, it is necessary for the customer to verify compliance with the EMC directive for the machinery and equipment as a whole.
[Precautions relating to differences in controller versions]
When the JXC series is to be used in combination with the battery-less absolute encoder, use a controller that is version V3.4 or S3.4 or higher. For details, refer to the Web Catalog.
[UL certification]
The JXC series controllers used in combination with electric actuators are UL certified.
*7 For the mounting of the double clevis type, use the actuator within the following stroke range.
25A-LEY16: 100 or less -25A-LEY25: 200 or less -25A-LEY32/40: 200 or less
*8 The rod flange type is not available for the 25A-LEY16 with strokes of 50 mm or less and 25A-LEY40 with strokes of 30 mm or less, and motor option "With lock/motor cover."
*9 The head flange type is not available for the 25A-LEY32/40.
*10 Produced upon receipt of order
*11 The DIN rail is not included. It must be ordered separately.
*12 Select "Nil" for anything other than DeviceNet ${ }^{\circledR}$, CC-Link, or parallel input.
Select "Nil," "S," or "T" for DeviceNet ${ }^{\circledR}$ or CC-Link.
Select "Nil," "1," "3," or " 5 " for parallel input.

## The actuator and controller are sold as a package.

Confirm that the combination of the controller and actuator is correct.

## <Check the following before use.>

(1) Check the actuator label for the model number (after " $25 \mathrm{~A}-$-"). This number should match that of the controller/driver.
(2) Check that the Parallel I/O configuration matches (NPN or PNP).

## LEY25EB-100

Refer to the Operation Manual for using the products.
Please download it via our website: https://www.smcworld.com

| Type | Step data input type | EtherCAT direct input type | EtherCAT direct input type with STO sub-function | EtherNet/IPTM direct input type | Etherletlifirm direct input type with STO sub.function | PROFINET direct input type | PROFINET direct input type with STO sub.function | DeviceNet ${ }^{\circledR}$ direct input type | IO-Link direct input type | 10-Link direct input type with STO sub-function | CC-Link direct input type |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Series | $\begin{aligned} & \hline \text { JXC51 } \\ & \text { JXC61 } \end{aligned}$ | JXCE1 | JXCEF | JXC91 | JXC9F | JXCP1 | JXCPF | JXCD1 | JXCL1 | JXCLF | JXCM1 |
| Features | Parallel I/O | EtherCAT direct input | EtherCAT direct input with STO sub-function | EtherNet//PTM direct input | EtherNetIIPTM direct input with STO sub-function | PROFINET direct input | PROFINET direct input with STO sub-function | DeviceNet ${ }^{\circledR}$ direct input | IO-Link direct input | IO-Link direct input with STO sub-function | CC-Link direct input |
| Compatible motor | Battery-less absolute (Step motor 24 VDC) |  |  |  |  |  |  |  |  |  |  |
| Max. number of step data | 64 points |  |  |  |  |  |  |  |  |  |  |
| Power supply voltage | 24 VDC |  |  |  |  |  |  |  |  |  |  |

## High Performance

Rod Type secondeay Bitiey Compaitios

Refer to the "CE/UKCA/UL-compliance List" in the Web Catalog. 25A-LEY $\square G$ Series

Motor mounting position:
Parallel

Motor mounting position: In-line


For details on controllers, refer to page 306-5.


| Symbol | Motor mounting <br> position | Motor cover direction |
| :---: | :---: | :---: |
| Nil | Top side parallel | - |
| D | In-line | -*1 |
| D1 |  | Left side*2 |
| D2 |  | Right side*2 |
| D3 |  | Top side*2 |
| D4 |  | Bottom side*2 |

3 Motor type

| Symbol | Type | Compatible controllers |
| :---: | :---: | ---: | ---: |
| G | High performance <br> Battery-less absolute <br> (Step motor 24 VDC) | JXC5H JXCEH <br> JXC6H JXC9H <br> JXCPH  |

(4) Lead [mm]

| Symbol | LEY16 | LEY25 | LEY40 |
| :---: | :---: | :---: | :---: |
| A | 10 | 12 | 16 |
| B | 5 | 6 | 8 |
| C | 2.5 | 3 | 4 |


| 5 Stroke ${ }^{* 3}$ [mm] |  |
| :---: | :---: |
| $\mathbf{3 0}$ | 30 |
| to | to |
| $\mathbf{5 0 0}$ | 500 |

* For details, refer to the applicable stroke table below.


7 Rod end thread

| Nil | Rod end female thread |
| :---: | :---: |
| $\mathbf{M}$ | Rod end male thread <br> $(1$ rod end nut is included.) |

8 Mounting*5

| Symbol | Type | Motor mounting position |  |
| :---: | :---: | :---: | :---: |
|  |  | In-line |  |
| Nil | Ends tapped/ <br> Body bottom tapped*6 | $\bullet$ | $\bullet$ |
| $\mathbf{L}$ | Foot bracket | $\bullet$ | - |
| $\mathbf{F}$ | Rod flange*6 | $\bullet^{* 8}$ | $\bullet$ |
| $\mathbf{G}$ | Head flange*6 | $\boldsymbol{Q}^{* 9}$ | - |
| $\mathbf{D}$ | Double clevis*7 | $\bullet$ | - |

Mounting Bracket Part Nos. for the 25A-Series

| Applicable size | Foot $^{* 1}$ | Flange | Double clevis |
| :---: | :---: | :---: | :---: |
| $\mathbf{1 6}$ | $25-$ LEY-L016 | $25-$ LEY-F016 | $25-$ LEY-D016 |
| $\mathbf{2 5}$ | $25-$ LEY-L025 | $25-$ LEY-F025 | $25-$ LEY-D025 |
| $\mathbf{4 0}$ | $25-$-LEY-L032 | $25-$ LEY-F032 | $25-$ LEY-D032 |

*1 When ordering foot brackets, order 2 pieces per actuator.
*2 Parts included with each type of bracket are as follows.
Foot, Flange: Body mounting bolt, Double clevis: Clevis pin, Type C retaining ring for axis, Body mounting bolt

Solid state auto switches should be ordered separately. Click here for auto switch details.

## Applicable auto switches

D-M9N(V)-900, D-M9P(V)-900, D-M9B(V)-900
D-M9NW(V)-900, D-M9PW(V)-900, D-M9BW(V)-900

## Applicable Stroke Table

| Size | Stroke [mm] |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 30 | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | Manuiacturable stroke range |
| 16 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | - | $\bigcirc$ | - | - | - | - | - | 10 to 300 |
| 25 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | - | 15 to 400 |
| 40 | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | - | - | $\bigcirc$ | 20 to 500 |

Replacement Parts/Grease Pack

| Applied portion | Order no. |
| :---: | :---: |
| Piston rod | GR-D-005 $(5 \mathrm{~g})$ |
|  | GR-D-010 $(10 \mathrm{~g})$ |

* Copper and zinc materials are used for the motors, cables, controllers/drivers.
* The 25A- series specifications and dimensions are the same as those of the standard model.

10 Controller
 protocol/Input/Output)

| $\mathbf{5}$ | Parallel I/O (NPN) |
| :---: | :---: |
| $\mathbf{6}$ | Parallel I/O (PNP) |
| $\mathbf{E}$ | EtherCAT |
| $\mathbf{9}$ | EtherNet/IP ${ }^{\text {TM }}$ |
| $\mathbf{P}$ | PROFINET |

Mounting

| $\mathbf{7}$ | Screw mounting |
| :---: | :---: |
| $\mathbf{8}^{* 11}$ | DIN rail |

d Number of axes/ Special specification
H 1 axis/High performance type
*1 Sizes 25 and 40 only
*2 Size 16 only
*3 Please contact SMC for non-standard strokes as they are produced as special orders.
*4 When "With lock/motor cover" is selected for the top side parallel motor type, the motor body will stick out from the end of the body for size 16 with strokes of 50 mm or less and size 40 with strokes of 30 mm or less. Check for interference with workpieces before selecting a model.
*5 The mounting bracket is shipped together with the product but does not come assembled.
*6 For the horizontal cantilever mounting of the rod flange, head flange, or ends tapped types, use the actuator within the following stroke range. - 25A-LEY25: 200 or less • 25A-LEY40: 100 or less
*7 For the mounting of the double clevis type, use the actuator within the following stroke range.

- 25A-LEY16: 100 or less • 25A-LEY25: 200 or less .25A-LEY40: 200 or less
*8 The rod flange type is not available for the 25A-LEY16 with strokes of 50 mm or less and 25A-LEY40 with strokes of 30 mm or less, and motor option "With lock/motor cover."
*9 The head flange type is not available for the 25A-LEY40.
*10 Produced upon receipt of order
*11 The DIN rail is not included. It must be ordered separately.
*12 Select "Nil" for anything other than parallel input. Select "Nil," "1," "3," or " 5 " for parallel input.


## The actuator and controller are sold as a package.

Confirm that the combination of the controller and actuator is correct.

## <Check the following before use.>

*1 Check the actuator label for the model number (after " $25 A$-").
compliance with the EMC directive for the machinery and equipment as a whole.

## Trademark

EtherNet/IP® is a registered trademark of ODVA, Inc.
EtherCAT® is registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany.

This number should match that of the controller/driver.

*1
Refer to the Operation Manual for using the products. Please download it via our website: https://www.smcworld.com

- Communication plug connector, l/O cable*12

| Symbol | Type | Applicable interface |
| :---: | :---: | :---: |
| Nil | Without accessory | - |
| 1 | I/O cable (1.5 m) | Parallel input (NPN) <br> Parallel input (PNP) |
| 3 | I/O cable (3 m) |  |
| 5 | I/O cable ( 5 m ) |  |

## Compatible Controllers

| Type | Step data input type | EtherCAT direct input type | EtherNet/IPTM direct input type | PROFINET direct input type |
| :---: | :---: | :---: | :---: | :---: |
| Series | JXC5H <br> JXC6H | JXCEH | JXC9H | JXCPH |
| Features | Parallel I/O | EtherCAT direct input | EtherNet//PTM direct input | PROFINET direct input |
| Compatible motor | Battery-less absolute (Step motor 24 VDC) |  |  |  |
| Max. number of step data | 64 points |  |  |  |
| Power supply voltage | 24 VDC |  |  |  |

High Performance


Refer to the "CE/UKCA/UL-compliance List" in the Web Catalog. 25A-LEY $\square F$ Series
 secondary batteries

## Motor mounting position: <br> Motor mounting position:

 Parallel

For details on controllers, refer to page 306-7.
Size

| 16 |
| :--- |
| 25 |
| 40 |


| 2 Moto | mounting position/M | Motor cover direction |
| :---: | :---: | :---: |
| Symbol | Motor mounting position | Motor cover direction |
| Nil | Top side parallel | - |
| R | Right side parallel | - |
| L | Left side parallel | - |
| D | In-line | -*1 |
| D1 |  | Left side*2 |
| D2 |  | Right side*2 |
| D3 |  | Top side*2 |
| D4 |  | Bottom side*2 |



5 Stroke*3[mm]

| $\mathbf{3 0}$ | 30 |
| :---: | :---: |
| to | to |
| $\mathbf{5 0 0}$ | 500 |

* For details, refer to the applicable stroke table below.
4 Lead [mm]

| Symbol | LEY16 | LEY25 | LEY40 |
| :---: | :---: | :---: | :---: |
| A | 10 | 12 | 16 |
| B | 5 | 6 | 8 |
| C | 2.5 | 3 | 4 |

6 Motor option*4

| C | With motor cover |
| :---: | :---: |
| W | With lock/motor cover |



| 7 ( Rod end thread |
| :--- |
| Nil |
| Rod end female thread |
| M | | Rod end male thread |
| :---: |
| $(1$ rod end nut is included.) |.

8 Mounting*5

| Symbol | Type | Motor mounting position |  |
| :---: | :---: | :---: | :---: |
|  |  | In-line |  |
| Nil | Ends tapped/ <br> Body bottom tapped*6 | $\bullet$ | $\bullet$ |
| $\mathbf{L}$ | Foot bracket | $\bullet$ | - |
| $\mathbf{F}$ | Rod flange*6 | $\bullet^{* 8}$ | $\bullet$ |
| $\mathbf{G}$ | Head flange*6 | $\boldsymbol{\bullet}^{* 9}$ | - |
| $\mathbf{D}$ | Double clevis*7 | $\bullet$ | - |

## (9) Actuator cable type/length

Standard cable [m] Robotic cable

| Standard cable [m] |  | Robotic cable |  | [m] |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Nil | None | R1 | 1.5 | RA | $10 * 10$ |
| S1 | 1.5 | R3 | 3 | RB | $15 * 10$ |
| S3 | 3 | R5 | 5 | RC | $20 * 10$ |
| S5 | 5 | R8 | 8*10 |  |  |

Mounting Bracket Part Nos. for the 25A- Series

| Applicable size | Foot*1 $^{* 1}$ | Flange | Double clevis |
| :---: | :---: | :---: | :---: |
| $\mathbf{1 6}$ | $25-$ LEY-L016 | 25-LEY-F016 | $25-$ LEY-D016 |
| $\mathbf{2 5}$ | $25-$-LEY-L025 | $25-$ LEY-F025 | $25-$ LEY-D025 |
| $\mathbf{4 0}$ | $25-$ LEY-L032 | $25-$ LEY-F032 | $25-$ LEY-D032 |

*1 When ordering foot brackets, order 2 pieces per actuator.

* Parts included with each type of bracket are as follows.

Foot, Flange: Body mounting bolt, Double clevis: Clevis pin, Type C retaining ring for axis, Body mounting bolt

Solid state auto switches should be ordered separately. Click here for auto switch details.

## Applicable auto switches

D-M9N(V)-900, D-M9P(V)-900, D-M9B(V)-900
D-M9NW(V)-900, D-M9PW(V)-900, D-M9BW(V)-900

## Applicable Stroke Table

| Size | Stroke [mm] |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 30 | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | Manuracurable stroke range |
| 16 | $\bullet$ | $\bigcirc$ | $\bigcirc$ | $\bullet$ | - | - | - | - | - | - | - | 10 to 300 |
| 25 | - | $\bigcirc$ | $\bigcirc$ | - | - | $\bigcirc$ | - | $\bigcirc$ | - | - | - | 15 to 400 |
| 40 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | 20 to 500 |

Replacement Parts/Grease Pack

| Applied portion | Order no. |
| :---: | :---: |
| Piston rod | GR-D-005 $(5 \mathrm{~g})$ |
|  | GR-D-010 $(10 \mathrm{~g})$ |

* Copper and zinc materials are used for the motors, cables, controllers/drivers.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

10 Controller
 protocol/Input/Output)

| $\mathbf{5}$ | Parallel I/O (NPN) |
| :---: | :---: |
| $\mathbf{6}$ | Parallel I/O (PNP) |
| $\mathbf{E}$ | EtherCAT |
| $\mathbf{9}$ | EtherNet/IP ${ }^{\text {TM }}$ |
| $\mathbf{P}$ | PROFINET |


| Mounting |  |
| :---: | :---: |
| 7 | Screw mounting |
| $8^{* 11}$ | DIN rail |

Number of axes/Special specification H 1 axis/High performance type

- Communication plug connector, l/O cable*12

| Symbol | Type | Applicable interface |
| :---: | :---: | :---: |
| Nil | Without accessory | - |
| $\mathbf{1}$ | I/O cable $(1.5 \mathrm{~m})$ | Parallel input (NPN) |
| $\mathbf{3}$ | I/O cable $(3 \mathrm{~m})$ |  |
| $\mathbf{5}$ | I/O cable $(5 \mathrm{~m})$ |  |

*7 For the mounting of the double clevis type, use the actuator within the following stroke range.

- 25A-LEY16: 100 or less - 25A-LEY25: 200 or less 25A-LEY40: 200 or less
*8 The rod flange type is not available for the 25A-LEY16 with strokes of 50 mm or less and 25A-LEY40 with strokes of 30 mm or less, and motor option "With lock/motor cover."
*9 The head flange type is not available for the 25A-LEY40.
*10 Produced upon receipt of order
*11 The DIN rail is not included. It must be ordered separately.
*12 Select "Nil" for anything other than parallel input.
Select "Nil," "1," "3," or " 5 " for parallel input.


## The actuator and controller are sold as a package.

Confirm that the combination of the controller and actuator is correct.

## <Check the following before use.>

*1 Check the actuator label for the model number (after " $25 \mathrm{~A}-$-"). This number should match that of the controller/driver.


* Refer to the Operation Manual for using the products. Please download it via our website: https://www.smcworld.com


## Compatible Controllers

|  | Step data input type | EtherCAT <br> direct input type | EtherNet/IPTM <br> direct input type | PROFINET <br> direct input type |
| :--- | :---: | :--- | :--- | :--- |
| Type |  |  |  |  |
|  |  |  |  |  |

# Rod Type Secondary Battery Compatible <br> <br> 25A-LEY Series <br> <br> 25A-LEY Series <br> LEY16, 25, 32, 40 

 List" in the Web Catalog.RoHS
Refer to the Web Catalog for model selection.

## How to Order

Motor mounting position:
Parallel
Motor mounting position:


For details on controllers, refer to page 309.

3 Motor type

| Symbol | Type | Applicable size |  |  | Compatible controllers/ drivers |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LEY16 | LEY25 | LEY32/40 |  |  |  |
|  | Step motor (Servo/24 VDC) | $\bigcirc$ | - | - | JXC51 | JXCD1 | JXCPF |
|  |  |  |  |  | JXC61 | JXCL1 | JXCLF |
| Nil |  |  |  |  | JXCE1 | JXCM1 |  |
|  |  |  |  |  | JXC91 | JXCEF | LECP1 |
|  |  |  |  |  | JXCP1 | JXC9F | LECPA |
| A | Servo motor (24 VDC) | $\bigcirc$ | - | - |  | LECA6 |  |

## (5) Stroke [mm]

| $\mathbf{3 0}$ | 30 |
| :---: | :---: |
| to | to |
| $\mathbf{5 0 0}$ | 500 |

* For details, refer to the applicable stroke table below.


## Rod end thread

| Nil | Rod end female thread |
| :---: | :---: |
| $\mathbf{M}$ | Rod end male thread <br> (1 rod end nut is included.) |

Actuator cable type/length*11
Standard cable [m] Robotic cable

| Standard cable [m] |  | Robotic cable |  |  | [m] |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Nil | None | R1 | 1.5 | RA | 10*10 |
| S1 | $1.5 * 12$ | R3 | 3 | RB | $15^{* 10}$ |
| S3 | 3*12 | R5 | 5 | RC | 20*10 |
| S5 | 5*12 | R8 | 8*10 |  |  |

## 8 Mounting*5

| Symbol | Type | Motor mounting position |  |
| :---: | :---: | :---: | :---: |
|  |  | In-line |  |
| Nil | Ends tapped/Body <br> bottom tapped*6 | $\bullet$ | $\bullet$ |
| $\mathbf{L}$ | Foot | $\bullet$ | - |
| $\mathbf{F}$ | Rod flange*6 | $\bullet^{* 8}$ | $\bullet$ |
| $\mathbf{G}$ | Head flange*6 | $\bullet^{* 9}$ | - |
| $\mathbf{D}$ | Double clevis*7 | $\bullet$ | - |


| Applicable size | Foot*3 | Flange | Double clevis |
| :---: | :---: | :---: | :---: |
| $\mathbf{1 6}$ | $25-$ LEY-L016 | 25-LEY-F016 | $25-$ LEY-D016 |
| $\mathbf{2 5}$ | $25-$ LEY-L025 | 25-LEY-F025 | $25-$ LEY-D025 |
| $\mathbf{3 2 , 4 0}$ | $25-$ LEY-L032 | 25-LEY-F032 | $25-$ LEY-D032 |
| Surface <br> treatment | RAYDENT ${ }^{\circledR}$ | RAYDENT ${ }^{\circledR}$ | Coating <br> (Size 16: Electroless nickel plating) |

## Solid state auto switches should be ordered separately. Click here for details on applicable auto switch models.

Applicable auto switches
D-M9N(V)-900, D-M9P(V)-900, D-M9B(V)-900
D-M9NW(V)-900, D-M9PW(V)-900, D-M9BW(V)-900

Applicable Stroke Table*1

|  | 30 | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | Manufacturable stroke range |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 25A-LEY16 | $\bigcirc$ | $\bigcirc$ | - | - | - | - | - | - | - | - | - | 10 to 300 |
| 25A-LEY25 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | - | 15 to 400 |
| 25A-LEY32/40 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | 20 to 500 |

* The 25A- series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catalog.


Communication plug connector, I/O cable*18

| Symbol | Type | Applicable interface |
| :---: | :---: | :---: |
| Nil | Without accessory | - |
| $\mathbf{S}$ | Straight type communication plug connector | DeviceNet ${ }^{\circledR}$ |
| $\mathbf{T}$ | T-branch type communication plug connector | CC-Link Ver. 1.10 |
| $\mathbf{1}$ | I/O cable $(1.5 \mathrm{~m})$ | Parallel input (NPN) |
| $\mathbf{3}$ | I/O cable $(3 \mathrm{~m})$ |  |
| $\mathbf{5}$ | I/O cable $(5 \mathrm{~m})$ |  |

## $L E C \square$ Series (For delalis, reler to page 309)



|  | ler/Driver type*1 |  |
| :---: | :---: | :---: |
| Nil | Without controller/driver |  |
| 6N | LECA6 <br> (Step data input type) | NPN |
| 6P |  | PNP |
| 1N | LECP1*13 <br> (Programless type) | NPN |
| 1P |  | PNP |
| AN | LECPA*13*14 (Pulse input type) | NPN |
| AP |  | PNP |

*1 Please contact SMC for non-standard strokes as they are produced as special orders. *2 When "With lock" or "With lock/motor cover" is selected for the top/ right/left side parallel motor types, the motor body will stick out from the end of the body for size 16/40 with strokes of 30 mm or less. Check for interference with workpieces before selecting a model.
*3 When ordering foot brackets, order 2 pieces per actuator.
*4 Parts included with each type of bracket are as follows.
Foot, Flange: Body mounting bolt, Double clevis: Clevis pin, Type C retaining ring for axis, Body mounting bolt
*5 The mounting bracket is shipped together with the product but does not come assembled.
*6 For the horizontal cantilever mounting of the rod flange, head flange, or ends tapped types, use the actuator within the following stroke range. LEY25: 200 mm or less -LEY32/40: 100 mm or less
*7 For the mounting of the double clevis type, use the actuator within the following stroke range. LEY16: 100 mm or less •LEY25: 200 mm or less $\cdot$ LEY32/40: 200 mm or less
*8 The rod flange type is not available for the LEY16/40 with a 30 mm stroke and motor option "With lock," "With lock/motor cover."
$\% 9$ The head flange type is not available for the LEY32/40.
*10 Produced upon receipt of order (Robotic cable only)

## $\triangle$ Caution

## [CE/UKCA-compliant products]

(1) EMC compliance was tested by combining the electric actuator LEY series and the controller LEC/JXC series
The EMC depends on the configuration of the customer's control panel and the relationship with other electrical equipment and wiring. Therefore, compliance with the EMC directive cannot be certified for SMC components incorporated into the customer's equipment under actual operating conditions. As a result, it is necessary for the customer to verify compliance with the EMC directive for the machinery and equipment as a whole.
(2) For the incremental (servo motor 24 VDC) specification, EMC compliance was tested by installing a noise filter set (LEC-NFA). Refer to the Web Catalog for the noise filter set. Refer to the LECA series Operation Manual for installation.
[UL-compliant products (For the LEC series)]
When compliance with UL is required, the electric actuator and controller/ driver should be used with a UL1310 Class 2 power supply.
$11 \mathbf{I} / \mathrm{O}$ cable length ${ }^{* 15}$

| $\mathbf{N i l}$ | Without cable <br> (Without communication plug connector) |
| :---: | :---: |
| $\mathbf{1}$ | 1.5 m |
| $\mathbf{3}$ | $3 \mathrm{~m}^{* 16}$ |
| $\mathbf{5}$ | $5 \mathrm{~m}^{* 16}$ |



12 Controller/Driver mounting

| Nil | Screw mounting |
| :---: | :---: |
| $\mathbf{D}$ | DIN rail ${ }^{* 17}$ |

*11 The standard cable should only be used on fixed parts
For use on moving parts, select the robotic cable.
Refer to the Web Catalog if only the actuator cable is required.
*12 For details on controllers/drivers and compatible motors, refer to the compatible controllers/drivers on the next page.
*13 Only available for the motor type "Step motor"
*14 When pulse signals are open collector, order the current limiting resistor (LEC-PA-R- $\square$ ) separately. (Refer to the Web Catalog.)
*15 When "Without controller/driver" is selected for controller/driver types, I/O cable cannot be selected. If an I/O cable is required, order the cable separately for each series. (For details, refer to the Web Catalog.)
*16 When "Pulse input type" is selected for controller/driver types, pulse input usable only with differential. Only 1.5 m cables usable with open collector
*17 The DIN rail is not included. It must be ordered separately.
*18 Select "Nil" for anything other than DeviceNet ${ }^{\circledR}$, CC-Link, or parallel input.
Select "Nil," "S," or "T" for DeviceNet ${ }^{\circledR}$ or CC-Link.
Select "Nil," "1," "3," or " 5 " for parallel input.

The actuator and controller/driver are sold as a package.
Confirm that the combination of the controller/driver and actuator is correct.

## <Check the following before use.>

(1) Check the actuator label for the model number (after " 25 A-"). This number should match that of the controller/driver.
(2) Check that the Parallel I/O configuration matches (NPN or PNP).


* Refer to the Operation Manual for using the products. Please download it via our website: https://www.smcworld.com


## 25A-LEY Series

Incremental (Step Motor 24 VDC)

## Compatible Controllers/Drivers

| Type | Step data input type | Step data input type | Programless type | Pulse input type |
| :---: | :---: | :---: | :---: | :---: |
| Series | $\begin{aligned} & \text { JXC51 } \\ & \text { JXC61 } \end{aligned}$ | LECA6 | LECP1 | LECPA |
| Features | Parallel I/O | Parallel I/O | Capable of setting up operation (step data) without using a PC or teaching box | Operation by pulse signals |
| Compatible motor | Step motor (Servo/24 VDC) | Servo motor (24 VDC) | Step (Servo | motor $4 \text { VDC) }$ |
| Max. number of step data |  | ints | 14 points | - |
| Power supply voltage | 24 VDC |  |  |  |


| Type | EtherCAT direct input type | EtherCAT direct input type with STO sub-function | EtherNet//PTM direct input type | EtherNet/IPTM direct input type with STO sub-function | PROFINET direct input type | PROFINET direct input type with STO sub-function | DeviceNet ${ }^{\circledR}$ direct input type | IO-Link direct input type | 10-Link direct input type with STO sub-function | CC-Link direct input type |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Series | JXCE1 | JXCEF | JXC91 | JXC9F | JXCP1 | JXCPF | JXCD1 | JXCL1 | JXCLF | JXCM1 |
| Features | EtherCAT direct input | EtherCAT direct input with STO sub-function | EtherNet/IPTM direct input | EtherNetIIPTM direct input with STO sub.function | PROFINET direct input | PROFINET direct input with STO sub-function | DeviceNet ${ }^{\circledR}$ direct input | IO-Link direct input | IO-Link direct input with STO sub-function | CC-Link direct input |
| Compatible motor | Step motor (Servo/24 VDC) |  |  |  |  |  |  |  |  |  |
| Max. number of step data | 64 points |  |  |  |  |  |  |  |  |  |
| Power supply voltage | 24 VDC |  |  |  |  |  |  |  |  |  |

# Rod Type semarabiecariwis <br>  <br> Refer to the "CE/UKCA/UL-compliance List" in the Web Catalog. 

 25A-LEY Series Ley25, 32Size 25, 32


| 2 Size |
| :---: |
| 25 |
| 32 |

(3) Motor mounting
position

| Nil | Top side parallel |
| :---: | :---: |
| R | Right side parallel |
| L | Left side parallel |
| D | In-line |


| Symbol | Type | Output [W] | $\stackrel{2}{2}$ |  | Compatible drivers |
| :---: | :---: | :---: | :---: | :---: | :---: |
| S2*1 | AC servo motor (Incremental encoder) | 100 | 25 | A1/A2 | LECSAD-S1 |
| S3 |  | 200 | 32 | A1/A2 | LECSAD-S3 |
| T6*2 | AC servo motor (Absolute encoder) |  |  | B2 | LECSB2-T5 |
|  |  | 100 | 25 | C2 | LECSC2-T5 |
|  |  |  |  | S2 | LECSS2-T5 |
| T7 |  | 200 | 32 | B2 | LECSB2-T7 |
|  |  |  |  | C2 | LECSC2-T7 |
|  |  |  |  | S2 | LECSS2-T7 |

*1 For motor type S2, the compatible driver part number suffix is S1.
*2 For motor type T6, the compatible driver part number is LECS $\square 2-T 5$.

* For details on the driver, refer to the Web Catalog.
(5) Lead [mm]

| Symbol | LEY25 | LEY32*1 |
| :---: | :---: | :---: |
| $\mathbf{A}$ | 12 | $16(20)$ |
| $\mathbf{B}$ | 6 | $8(10)$ |
| $\mathbf{C}$ | 3 | $4(5)$ |

*1 The values shown in ( ) are the leads for the size 32 top/right/left side parallel motor types. (Equivalent leads which include the pulley ratio [1.25:1])

| 8 Rod end thread |  |
| :---: | :---: |
| Nil | Rod end female thread |
| $\mathbf{M}$ | Rod end male thread <br> (1 rod end nut is included.) |


| 6 Stroke [mm] |
| :--- |
| $\mathbf{3}$ St 30 <br> to to <br> 500 500 |

* For details, refer to the applicable stroke table below.


## (9) Mounting**

| Symbol | Type | Motor mounting position |  |
| :---: | :---: | :---: | :---: |
|  |  | Parallel | In-line |
| Nil | Ends tapped/ Body bottom tapped ${ }^{* 2}$ | $\bigcirc$ | $\bigcirc$ |
| L | Foot | $\bigcirc$ | - |
| F | Rod flange*2 | *4 | $\bigcirc$ |
| G | Head flange*2 | *5 | - |
| D | Double clevis*3 | $\bigcirc$ | - |


| 7 Motor option |
| :--- |
| Nil | Without option $\quad$ ( With lock*1

*1 When "With lock" is selected for the top/right/left side parallel motor types, the motor body will stick out from the end of the body for size 25 with strokes of 30 mm or less. Check for interference with workpieces before selecting a model.

*1 The mounting bracket is shipped together with the product but does not come assembled.
*2 For the horizontal cantilever mounting of the rod flange, head flange, or ends tapped types, use the actuator within the following stroke range. - 25A-LEY25: 200 mm or less 25A-LEY32: 100 mm or less
*3 For the mounting of the double clevis type, use the actuator within the following stroke range. -25A-LEY25: 200 mm or less 25A-LEY32: 200 mm or less
*4 The rod flange type is not available for the 25A-LEY25 with a 30 mm stroke and motor option "With lock."
*5 The head flange type is not available for the 25A-LEY32.

Solid state auto switches should be ordered separately. Click here for details on applicable auto switch models.

## Applicable auto switches

D-M9N(V)-900, D-M9P(V)-900, D-M9B(V)-900
D-M9NW(V)-900, D-M9PW(V)-900, D-M9BW(V)-900

## Applicable Stroke Table

| Model Stroke <br> $[\mathrm{mm}]$ | 30 | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | Manufacturable stroke range $[\mathrm{mm}]$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 25A-LEY25 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | - | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | - | - | 15 to 400 |
| 25A-LEY32 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | 20 to 500 |

[^81]

Motor mounting position: Parallel


Motor mounting position: In-line

| 10 Cable type ${ }^{* 1 * 2}$ |  |
| :---: | :---: |
| Nil | Without cable |
| S | Standard cable |
| R | Robotic cable |

*1 A motor cable and encoder cable are included with the product. (A lock cable is also included if motor option "B: With lock" is selected.)
*2 Standard cable entry direction is
Parallel: (A) Axis side

- In-line: (B) Counter axis side


## $13 \mathrm{I} / \mathrm{O}$ cable length [m]*

| $\mathbf{N i l}$ | Without cable |
| :---: | :---: |
| $\mathbf{H}$ | Without cable (Connector only) |
| $\mathbf{1}$ | 1.5 |

*1 When "Nil: Without driver" is selected for the driver type, only "Nil: Without cable" can be selected.
Refer to the Web Catalog if an I/O cable is required.
11 Cable length ${ }^{* 1}[\mathrm{~m}]$

| $\mathbf{N i l}$ | Without cable |
| :---: | :---: |
| 2 | 2 |
| 5 | 5 |
| $\mathbf{A}$ | 10 |

*1 The length of the encoder, motor, and lock cables are the same.

Driver type*1

|  | Compatible drivers | Power supply voltage [V] |
| :---: | :---: | :---: |
| Nil | Without driver | - |
| A1 | LECSA1-S $\square$ | 100 to 120 |
| A2 | LECSA2-S $\square$ | 200 to 230 |
| B2 | LECSB2-T $\square$ | 200 to 240 |
| C2 | LECSC2-T $\square$ | 200 to 230 |
| S2 | LECSS2-T $\square$ | 200 to 240 |

*1 When a driver type is selected, a cable is included. Select the cable type and cable length. Example)
S2S2: Standard cable (2 m) + Driver (LECSS2)
S2: Standard cable (2 m)
Nil: Without cable and driver

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## Compatible Drivers

|  | Pulse input type/ <br> Positioning type | Pulse input type | CC-Link direct input type |  |
| :--- | :---: | :---: | :---: | :---: |
| Driver type |  |  |  |  |
|  |  |  |  |  |

* Copper and zinc materials are used for the motors, cables, controllers/drivers.


# Rod Type semulay birivecomide 25A-LEY Series <br> LEY25, 32 

## How to Order


(4) Motor type

| Symbol | Type | Output <br> $[W]$ | 2 <br> Size | 11 <br> Driver type | Compatible <br> drivers |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{V 6 * 1}^{* 1}$ | AC servo motor | 100 | 25 | M2 | LECYM2-V5 |
|  |  | 200 | 32 | U2 | LECYU2-V5 |
|  |  | 200 | M2 | LECYM2-V7 |  |

*1 For motor type V6, the compatible driver part number suffix is V5.
5 Lead [mm]

| Symbol | 25A-LEY25 | 25A-LEY32*1 |
| :---: | :---: | :---: |
| A | 12 | $16(20)$ |
| B | 6 | $8(10)$ |
| C | 3 | $4(5)$ |

*1 The values shown in ( ) are the leads for the size 32 top/right/left side parallel motor types. (Equivalent leads which include the pulley ratio [1.25:1])

## 8 Rod end thread

| Nil | Rod end female thread |
| :---: | :---: |
| $\mathbf{M}$ | Rod end male thread <br> $(1$ rod end nut is included.) |


| 6 Stroke [mm] |  |
| :---: | :---: |
| $\mathbf{3 0}$ | 30 |
| to | to |
| 500 | 500 |

* For details, refer to the applicable stroke table below.

| 7 Motor option |
| :--- |
| Nil |


| Nil | Without option |
| :---: | :---: |
| B | With lock*1 |

*1 When "With lock" is selected for the top/right/left side parallel motor types, the motor body will stick out from the end of the body for size 25 with strokes of 30 mm or less. Check for interference with workpieces before selecting a model.


## Mounting*


*1 The mounting bracket is shipped together with the product but does not come assembled.
*2 For the horizontal cantilever mounting of the rod flange, head flange, or ends tapped types, use the actuator within the following stroke range. - LEY25: 200 mm or less . LEY32: 100 mm or less
*3 For the mounting of the double clevis type, use the actuator within the following stroke range. - LEY25: 200 mm or less . LEY32: 200 mm or less *4 The rod flange type is not available for the LEY25 with a 30 mm stroke and motor option "With lock."
*5 The head flange type is not available for the LEY32.

Mounting Bracket Part Nos. for the 25A- Series

| Applicable size | Foot*1 $^{* 1}$ | Flange | Double clevis |
| :---: | :---: | :---: | :---: |
| $\mathbf{2 5}$ | $25-$ LEY-L025 | $25-$ LEY-F025 | $25-$ LEY-D025 |
| $\mathbf{3 2}$ | $25-$ LEY-L032 | $25-$ LEY-F032 | $25-$ LEY-D032 |
| Surface <br> treatment | RAYDENT ${ }^{\circledR}$ | RAYDENT ${ }^{\circledR}$ | Coating <br> (Size 16: Electroless nickel plating) |

> Solid state auto switches should be ordered separately. Click here for details on applicable auto switch models.
*1 When ordering foot brackets, order 2 pieces per actuator.

* Parts included with each type of bracket are as follows.


## Applicable auto switches

D-M9N(V)-900, D-M9P(V)-900, D-M9B(V)-900
Foot, Flange: Body mounting bolt, Double clevis: Clevis pin, Type C retaining ring for axis, D-M9NW(V)-900, D-M9PW(V)-900, D-M9BW(V)-900 Body mounting bolt

## Applicable Stroke Table

- Standard

| Model Stroke <br> $[\mathrm{mm}]$ | 30 | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | Manufacturable stroke range [mm] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 25A-LEY25 | $\bigcirc$ | $\bigcirc$ | - | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | - | 15 to 400 |
| 25A-LEY32 | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | 20 to 500 |

[^82]Motor mounting position: Parallel
 In-line

10 Cable type ${ }^{* 1 * 2}$

| Nil | Without cable |
| :---: | :---: |
| $\mathbf{S}$ | Standard cable |
| $\mathbf{R}$ | Robotic cable |

*1 A motor cable and encoder cable are included with the product. (A lock cable is also included if motor option "B: With lock" is selected.)
*2 Standard cable entry direction is
Parallel: (A) Axis side

- In-line: (B) Counter axis side
$13 \mathrm{I} / \mathrm{O}$ cable length [m] ${ }^{* 1}$

| $\mathbf{N i l}$ | Without cable |
| :---: | :---: |
| $\mathbf{H}$ | Without cable (Connector only) |
| $\mathbf{1}$ | 1.5 |

*1 When "Nil: Without driver" is selected for the driver type, only "Nil: Without cable" can be selected.
Refer to the Web Catalog if an I/O cable is required.

## 11 Cable length [m]*1

| Nil | Without cable |
| :---: | :---: |
| $\mathbf{3}$ | 3 |
| $\mathbf{5}$ | 5 |
| $\mathbf{A}$ | 10 |
| $\mathbf{C}$ | 20 |

*1 The length of the motor and encoder cables are the same. (For with lock)

12 Driver type*1

|  | Compatible drivers | Power supply voltage [V] |
| :---: | :---: | :---: |
| Nil | Without driver | - |
| M2 | LECYM2-V $\square$ | 200 to 230 |
| U2 | LECYU2-V $\square$ | 200 to 230 |

*1 When a driver type is selected, a cable is included. Select the cable type and cable length.

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## Compatible Drivers

| Driver type | II MECHATROLINK-II type | II MECHATROLINK-III type |
| :---: | :---: | :---: |
| Series | LECYM | LECYU |
| Applicable network | MECHATROLINK-II | MECHATROLINK-III |
| Control encoder | Absolute 20-bit encoder |  |
| Communication device | USB communication, RS-422 communication |  |
| Power supply voltage [V] | 200 to 230 VAC (50/60 Hz) |  |

* Copper and zinc materials are used for the motors, cables, controllers/drivers.


# Electric Actuator  

# 25A-LEY Series 25A-LEY25, 32 

RoHS

## How to Order

| Series compatible with (1) Accuracy |  | 25A-LEY H ( 25 |  |  |  |  | $B-100$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | con |  | ies (1) |  |  | 5 | 6 |  |  |  |
|  |  | (2) Size 3 Motor mounting position |  |  | (4) Mounting typ |  | (5) Lead [mm] |  |  |  |  |
| Nil | Basic type | 25 | Nil | Top side parallel | NZ | NU | Symbol | LEY25 | LEY32 |  | The values shown in () are |
| H | High-precision type | 32 | R | Right side parallel | NY | NT | A | 12 | 16 (20) |  | the leads for the top/rightleft |
| 6 Stroke [mm] |  |  | L | Left side parallel | NX | NM1 | B | 6 | 8 (10) |  | sidept mounting type NM1 |
|  |  | D | In-line | NW | NM2 | C | 3 | 4 (5) | (Equivalent leads which in- |  |
| 30 | 30 |  |  |  | NV | NM3 |  |  |  |  | clude the pulley ratio [1.25:1]) |


| $\mathbf{3 0}$ | 30 |
| :---: | :---: |
| to | to |
| $\mathbf{5 0 0}$ | 500 |

* Refer to the applicable stroke table.

| 7 Rod end thread |  |
| :---: | :---: |
| Nil | Rod end female thread |
| $\mathbf{M}$ | Rod end male thread <br> (1 rod end nut is included.) |

## 8 Mounting ${ }^{* 1}$

| Symbol | Type | Motor mounting position |  |
| :---: | :---: | :---: | :---: |
|  |  | Parallel | In-line |
| Nil | Ends tapped/Body bottom tapped*2 | $\bigcirc$ | $\bigcirc$ |
| L | Foot | - | - |
| F | Rod flange*2 | * ${ }^{4}$ | - |
| G | Head flange*2 | * ${ }^{*}$ | - |
| D | Double clevis*3 | $\bigcirc$ | - |

*1 The mounting bracket is shipped together with the product but does not come assembled.
*2 For the horizontal cantilever mounting with the ends tapped, rod flange, or head flange types, use the actuator within the following stroke range. - 25A-LEY25: 200 mm or less, 25A-LEY32: 100 mm or less
*3 For the mounting with the double clevis type, use the actuator within the following stroke range.
-25A-LEY25: 200 mm or less, 25A-LEY32: 200 mm or less
*4 If the stroke of the 25A-LEY25 is 30 mm or less, the rod flange may interfere with the motor. *5 The head flange type is not available for the in-line type and the 25A-LEY32.

## Mounting Bracket Part Nos. for the 25A- Series

| Applicable size | Foot*1 | Flange | Double clevis |
| :---: | :---: | :---: | :---: |
| $\mathbf{2 5}$ | $25-$ LEY-L025 | $25-$ LEY-F025 | $25-$ LEY-D025 |
| $\mathbf{3 2}$ | $25-$ LEY-L032 | $25-$ LEY-F032 | $25-$ LEY-D032 |

*1 When ordering foot brackets, order 2 pieces per actuator.

* Parts included with each type of bracket are as follows.

Foot, Flange: Body mounting bolt, Double clevis: Clevis pin, Type C retaining ring for axis, Body mounting bolt

## Compatible Motors and Mounting Types*4

| Applicable motor model |  | Size/Mounting type |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Manufacturer | Series | 25 |  |  |  |  |  | 32 |  |  |  |  |  |  |  |  |
|  |  | NZ | NY | NX | NM1 | NM2 | NM3 | NZ | NY | NX | NW | NV | NU | NT | NM1 | NM2 |
| Mitsubishi Electric Corporation | MELSERVO JN/J4/J5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| YASKAWA Electric Corporation | $\Sigma$-V/7/X | ** | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - |
| SANYO DENKI CO., LTD. | SANMOTION R | $\bigcirc$ | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - |
| OMRON Corporation | OMNUC G5/1S | - | - | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - |
| Panasonic Corporation | MINAS A5/A6 |  | - | - | - | - | - | - | $\bullet$ | - | - | - | - | - | - | - |
| FANUC CORPORATION | $\beta$ is (-B) | - | - | - | - | - | - | ( 31 only) | - | - | - | - | - | - | - | - |
| NIDEC SANKYO CORPORATION | S-FLAG | - | - | - | - | - | - | $\bullet$ | - | - | - | - | - | - | - | - |
| KEYENCE CORPORATION | SV/SV2 | ${ }^{*}{ }^{*}$ | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| FUJI ELECTRIC CO., LTD. | ALPHA7 | $\bullet$ | - | - | - | - | - | $\bullet$ | - | - | - | - | - | - | - | - |
| MinebeaMitsumi Inc. | Hybrid stepping motors | - | - | - | -*1 | - | - ${ }^{*}$ | - | - | - | - | - | - | - | $\bullet$ | - |
| Shinano Kenshi Co., Ltd. | CSB-BZ | - | - | - | - *1 | - | $\bullet^{* 2}$ | - | - | - | - | - | - | - | - | - |
| ORIENTAL MOTOR Co., Ltd. | $\alpha$ STEP AR/AZ | - | - | - | - |  | - | - | - | - | - | - | - | - | - | - |
| FASTECH Co., Ltd. | Ezi-SERVO | - | - | - | $\bullet$ | - | - | - | - | - | - | - | - | - | $\bigcirc$ | - |
| Rockwell Automation, Inc. (Allen-Bradley) | Kinetix MP/VP/TL | $\underset{\text { (TL only) }}{\bullet}$ | - | - | - | - | - | - | - |  | - | - | - | $\underset{\text { (TL only) }}{\bullet}$ | - | - |
| Beckhoff Automation GmbH | AM 30/31/80/81 | $\bullet$ | - | - | - | - | - | - | - |  | - | $\begin{gathered} \boldsymbol{e}^{* 1} \\ \text { (AM30 } \\ \text { only) } \end{gathered}$ | (AM31 only) | - | - | - |
| Siemens AG | SIMOTICS S-1FK7 | - | - | $\bigcirc$ | - | - | - | - | - | - *1 | - | - | - | - | - | - |
| Delta Electronics, Inc. | ASDA-A2 | $\bigcirc$ | - | - | - | - | - | $\bullet$ | - | - | - | - | - | - | - | - |
| ANCA Motion | AMD2000 | $\bigcirc$ | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - |

*1 Motor mounting position: In-line only *2 Motor mounting position: Parallel only
*3 For some motors, the connector may protrude from the motor body. Be sure to check for interference with the mounting surface before selecting a motor.
*4 The compatible motors and mounting types are typical examples. Select the mounting type after referring to the "Motor Mounting, Applicable Motor Dimensions" tables on the "Dimensions" pages.

## Replacement Parts/Grease Pack

| Applied portion | Order no. |
| :---: | :---: |
| Piston rod | GR-D-005 $(5 \mathrm{~g})$ |
|  | GR-D-010 $(10 \mathrm{~g})$ |

Solid state auto switches should be ordered separately. Click here for auto switch details.

## Applicable auto switches

D-M9N(V)-900, D-M9P(V)-900, D-M9B(V)-900
D-M9NW(V)-900, D-M9PW(V)-900, D-M9BW(V)-900

* The 25A-series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## Guide Rod Type semminaivoimiai 25A-LEYG Series 25A-LEYG16, 25, 32, 40

## How to Order

Motor mounting position: Parallel

Motor mounting position: In-line


Bearing type**

| $\mathbf{M}$ | Sliding bearing |
| :---: | :---: |
| $\mathbf{L}$ | Ball bushing bearing |

(3) Motor mounting position

| Nil | Top side parallel |
| :---: | :---: |
| $\mathbf{D}$ | In-line |

## (4) Motor type

| Symbol | Type | Applicable size |  |  | Compatible controllers/ drivers |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LEYG16 | LEYG25 | LEYG32/40 |  |  |  |
|  |  |  |  |  | JXC51 | JXCD1 | JXCPF |
|  |  |  |  |  | JXC61 | JXCL1 | JXCLF |
| Nil | (Servo/24 VDC) | - | - | - | JXCE1 | JXCM1 |  |
|  |  |  |  |  | JXC91 | JXCEF | LECP1 |
|  |  |  |  |  | JXCP1 | JXC9F | LECPA |
| A | Servo motor (24 VDC) | $\bigcirc$ | $\bigcirc$ | - |  | LECA6 |  |

## (5) Lead [mm]

| Symbol | LEYG16 | LEYG25 | LEYG32/40 |
| :---: | :---: | :---: | :---: |
| A | 10 | 12 | 16 |
| B | 5 | 6 | 8 |
| C | 2.5 | 3 | 4 |


| 6 Stroke ${ }^{* 2 * 3}$ [mm] |  |
| :---: | :---: |
| $\mathbf{3 0}$ | 30 |
| to | to |
| 300 | 300 |

* For details, refer to the applicable stroke table below.


Motor option*4

| Nil | Without option |
| :---: | :---: |
| C | With motor cover |
| $\mathbf{B}$ | With lock |
| W | With lock/motor cover |

8 Guide option*5

| Nil | Without option |
| :---: | :---: |
| $\mathbf{F}$ | With grease retaining function*15 |

*15 Only applicable for sizes 25, 32, and 40 with the sliding bearing

| (9) Actuator cable type/length*7 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Standard cable [m] |  | Robotic cable [m] |  |  |  |
| Nil | None | R1 | 1.5 | RA | 10*6 |
| S1 | 1.5*9 | R3 | 3 | RB | 15*6 |
| S3 | 3*9 | R5 | 5 | RC | 20*6 |
| S5 | 5*9 | R8 | 8*6 |  |  |



## Solid state auto switches should be ordered separately. Click here for auto switch details.

## Applicable auto switches

D-M9N(V)-900, D-M9P(V)-900, D-M9B(V)-900
D-M9NW(V)-900, D-M9PW(V)-900, D-M9BW(V)-900
314-2

Replacement Parts/Grease Pack

| Applied portion | Order no. |
| :---: | :---: |
| Piston rod | GR-D-005 $(5 \mathrm{~g})$ |
| Guide rod | GR-D-010 $(10 \mathrm{~g})$ |

* Copper and zinc materials are used for the motors, cables, controllers/drivers.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.


- Communication plug connector, I/O cable $* 14$

| Symbol | Type | Applicable interface |
| :---: | :---: | :---: |
| Nil | Without accessory | - |
| $\mathbf{S}$ | Straight type communication plug connector | DeviceNet ${ }^{\circledR}$ |
| $\mathbf{T}$ | T-branch type communication plug connector | CC-Link Ver. 1.10 |
| $\mathbf{1}$ | I/O cable $(1.5 \mathrm{~m})$ | Parallel input (NPN) |
| $\mathbf{3}$ | I/O cable $(3 \mathrm{~m})$ |  |
| $\mathbf{5}$ | I/O cable $(5 \mathrm{~m})$ |  |

## $L E C \square$ Series (For detalis, reier to the Web Calalog.)



10 Controller/Driver type*8

| Nil | Without controller/driver |  |
| :---: | :---: | :---: |
| 6N | LECA6 | NPN |
| 6P | (Step data input type) | PNP |
| 1N | LECP1*9 <br> (Programless type) | NPN |
| 1P |  | PNP |
| AN | LECPA $* 9 * 10$(Pulse input type) | NPN |
| AP |  | PNP |

*1 When [M: Sliding bearing] is selected, the max. speed of lead [A] is 400 $\mathrm{mm} / \mathrm{s}$ (at no-load, horizontal mounting). The speed is also restricted with a horizontal/moment load. Refer to the "Model Selection" on the Web Catalog
*2 Please contact SMC for non-standard strokes as they are produced as special orders.
*3 There is a limit for mounting the size 32/40 top side parallel motor types and strokes of 50 mm or less. Refer to the dimensions.
*4 When "With lock" or "With lock/motor cover" is selected for the top side parallel motor type, the motor body will stick out from the end of the body for size $16 / 40$ with strokes of 30 mm or less. Check for interference with workpieces before selecting a model.
*5 Only available for size 25, 32, and 40 sliding bearings (Refer to the "Construction" on the Web Catalog.)
*6 Produced upon receipt of order (Robotic cable only)
*7 The standard cable should only be used on fixed parts.
For use on moving parts, select the robotic cable.
Refer to the Web Catalog if only the actuator cable is required.
*8 For details on controllers/drivers and compatible motors, refer to the

## $\triangle$ Caution

## [CE/UKCA-compliant products]

(1) EMC compliance was tested by combining the electric actuator LEY series and the controller LEC/JXC series.
The EMC depends on the configuration of the customer's control panel and the relationship with other electrical equipment and wiring. Therefore, compliance with the EMC directive cannot be certified for SMC components incorporated into the customer's equipment under actual operating conditions. As a result, it is necessary for the customer to verify compliance with the EMC directive for the machinery and equipment as a whole.
(2) For the incremental (servo motor 24 VDC) specification, EMC compliance was tested by installing a noise filter set (LEC-NFA). Refer to the Web Catalog for the noise filter set. Refer to the LECA series Operation Manual for installation.

## [UL-compliant products (For the LEC series)]

When compliance with UL is required, the electric actuator and controller/ driver should be used with a UL1310 Class 2 power supply.
compatible controllers/drivers on the next page.
*9 Only available for the motor type "Step motor"
*10 When pulse signals are open collector, order the current limiting resistor (LEC-PA-R- $\square$ ) on separately.
*11 When "Without controller/driver" is selected for controller/driver types, I/O cable cannot be selected. Refer to the Web Catalog if an I/O cable is required
*12 When "Pulse input type" is selected for controller/driver types, pulse input usable only with differential. Only 1.5 m cables u -able with open collector
*13 The DIN rail is not included. It must be ordered separately.
*14 Select "Nil" for anything other than DeviceNet ${ }^{\circledR}$, CC-Link, or parallel input.
Select "Nil," "S," or "T" for DeviceNet ${ }^{\circledR}$ or CC-Link.
Select "Nil," "1," "3," or " 5 " for parallel input.

The actuator and controller/driver are sold as a package.
Confirm that the combination of the controller/driver and actuator is correct.

## <Check the following before use.>

(1) Check the actuator label for the model number (after " $25 \mathrm{~A}-$-"). This number should match that of the controller/driver.
(2) Check that the Parallel I/O configuration matches (NPN or PNP)


* Refer to the Operation Manual for using the products. Please download it via our website: https://www.smcworld.com


# Guide Rod Type smisemetic 

## How to Order

Motor option*6| C | With motor cover |
| :---: | :---: |
| W | With lock/motor cover |

## 8 Guide option*7

| Nil | Without option |
| :---: | :---: |
| F | With grease retaining function*11 |

*11 Only applicable for sizes 25, 32, and 40 with the sliding bearing

Actuator cable type/length
Robotic cable

| Nil | None | R8 | $8 * 8$ |
| :---: | :---: | :---: | :---: |
| R1 | 1.5 | RA | $10 * 8$ |
| R3 | 3 | RB | $15 * 8$ |
| R5 | 5 | RC | $20 * 8$ |

Solid state auto switches should be ordered separately. Click here for auto switch details.

## Applicable auto switches

D-M9N(V)-900, D-M9P(V)-900, D-M9B(V)-900
D-M9NW(V)-900, D-M9PW(V)-900, D-M9BW(V)-900

## Replacement Parts/Grease Pack

| Applied portion | Order no. |
| :---: | :---: |
| Piston rod | GR-D-005 $(5 \mathrm{~g})$ |
| Guide rod | GR-D-010 $(10 \mathrm{~g})$ |

* Copper and zinc materials are used for the motors, cables, controllers/drivers.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.


## $\triangle$ Caution

## [CE/UKCA-compliant products]

EMC compliance was tested by combining the electric actuator LEY series and the controller JXC series.
The EMC depends on the configuration of the customer's control panel and the relationship with other electrical equipment and wiring. Therefore, compliance with the EMC directive cannot be certified for SMC components incorporated into the customer's equipment under actual operating conditions. As a result, it is necessary for the customer to verify compliance with the EMC directive for the machinery and equipment as a whole.
[Precautions relating to differences in controller versions]
When the JXC series is to be used in combination with the battery-less absolute encoder, use a controller that is version V3.4 or S3.4 or higher. For details, refer to the Web Catalog.
[UL certification]
The JXC series controllers used in combination with electric actuators are UL certified.
type, the motor body will stick out from the end of the body for size 16 with strokes of 50 mm or less and size 40 with strokes of 30 mm or less. Check for interference with workpieces before selecting a model.
*7 Only available for size 25, 32, and 40 sliding bearings (Refer to the "Construction" on the Web Catalog.)
*8 Produced upon receipt of order
*9 The DIN rail is not included. It must be ordered separately.
*10 Select "Nil" for anything other than DeviceNet ${ }^{\circledR}$, CC-Link, or parallel input.
Select "Nil," "S," or "T" for DeviceNet ${ }^{\circledR}$ or CC-Link.
Select "Nil," "1," "3," or "5" for parallel input.

The actuator and controller are sold as a package.
Confirm that the combination of the controller and actuator is correct.
<Check the following before use.>
(1) Check the actuator label for the model number (after " $25 A-$-"). This number should match that of the controller/driver.
(2) Check that the Parallel I/O configuration matches (NPN or PNP).


* Refer to the Operation Manual for using the products.

Please download it via our website: https://www.smcworld.com

| Type | Step data input type | EtherCAT direct input type | EtherCAT direct input type with STO sub-function | EtherNet//Pim direct input type | EtherNetilpix direct inpultype with STO sub-function | PROFINET direct input type | PROFINET direct input type with STO sub-function | DeviceNet ${ }^{\circledR}$ direct input type | IO-Link direct input type | 10.Link direct inputtype with STO sub-function | CC-Link direct input type |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Series | $\begin{aligned} & \hline \text { JXC51 } \\ & \text { JXC61 } \end{aligned}$ | JXCE1 | JXCEF | JXC91 | JXC9F | JXCP1 | JXCPF | JXCD1 | JXCL1 | JXCLF | JXCM1 |
| Features | Parallel I/O | EtherCAT direct input | EtherCAT direct input with STO sub-function | EtherNet/IPTM direct input | EhenNe:IPTM direct ingut with STO sub-function | PROFINET direct input | PROFNET direc: input with STO sub-function | DeviceNet ${ }^{\text {® }}$ direct input | IO-Link direct input | 10-Link direct input with STO sub-function | CC-Link direct input |
| Compatible motor | Battery-less absolute (Step motor 24 VDC) |  |  |  |  |  |  |  |  |  |  |
| Max. number of step data | 64 points |  |  |  |  |  |  |  |  |  |  |
| Pover supply volage | 24 VDC |  |  |  |  |  |  |  |  |  |  |

## Guide Rod Type <br> 

 secondary batteries

| 1 Accuracy | 2 Size |
| :---: | :---: |
| $\mathbf{N i I}$ Basic type <br> $\mathbf{H}$ High-precision type25 |  |

3 Bearing type

| $\mathbf{M}$ | Sliding bearing |
| :---: | :---: |
| L | Ball bushing bearing |

4 Motor mounting position

| Nil | Top side parallel |
| :---: | :---: |
| $\mathbf{D}$ | In-line |

Motor type*1

| Symbol | Type | Output [W] | $\begin{gathered} \mathbf{2} \\ \text { Size } \end{gathered}$ | Driver type | Compatible drivers*3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| S2*1 | AC servo motor (Incremental encoder) | 100 | 25 | A1/A2 | LECSA■-S1 |
| S3 |  | 200 | 32 | A1/A2 | LECSA■-S3 |
| T6*2 | AC servo motor (Absolute encoder) |  |  | B2 | LECSB2-T5 |
|  |  | 100 | 25 | C2 | LECSC2-T5 |
|  |  |  |  | S2 | LECSS2-T5 |
| T7 |  | 200 | 32 | B2 | LECSB2-T7 |
|  |  |  |  | C2 | LECSC2-T7 |
|  |  |  |  | S2 | LECSS2-T7 |

*1 For motor type S 2 , the compatible driver part number suffix is S 1 .
*2 For motor type T6, the compatible driver part number is LECS $\square 2-T 5$.
*3 For details on the driver, refer to the Web Catalog.

## 7 Stroke [mm]

| $\mathbf{3 0}$ | 30 |
| :---: | :---: |
| to | to |
| $\mathbf{3 0 0}$ | 300 |

* For details, refer to the applicable stroke table below.
* There is a limit for mounting the size 32 top side parallel motor type and strokes of 50 mm or less. Refer to the dimensions.


## 10 Cable type ${ }^{* 1 * 2}$

| Nil | Without cable |
| :---: | :---: |
| $\mathbf{S}$ | Standard cable |
| $\mathbf{R}$ | Robotic cable |

*1 A motor cable and encoder cable are included with the product. (A lock cable is also included if motor option "B: With lock" is selected.)
*2 Standard cable entry direction is

- Top side parallel: (A) Axis side
- In-line: (B) Counter axis side
(Refer to the Web Catalog for details.)


## 8 Motor option

| $\mathbf{N i l}$ | Without option |
| :---: | :---: |
| $\mathbf{B}$ | With lock |

(11) Cable length*1 ${ }^{*} \mathrm{~m}$ ]

| $\mathbf{N i l}$ | Without cable |
| :---: | :---: |
| $\mathbf{2}$ | 2 |
| $\mathbf{5}$ | 5 |
| $\mathbf{A}$ | 10 |

*1 The length of the motor, encoder, and lock cables are the same.

6 Lead [mm]

| Symbol | LEYG25 | LEYG32*1 |
| :---: | :---: | :---: |
| A | 12 | $16(20)$ |
| B | 6 | $8(10)$ |
| C | 3 | $4(5)$ |

*1 The values shown in () are the leads for the size 32 top side parallel motor type. (Equivalent leads which include the pulley ratio [1.25:1])

## Guide option

| Nil | Without option |
| :---: | :---: |
| $\mathbf{F}$ | With grease retaining function*1 |

*1 Only available for sliding bearings
Replacement Parts/Grease Pack

| Applied portion | Order no. |
| :---: | :---: |
| Piston rod | GR-D-005 $(5 \mathrm{~g})$ |
| Guide rod | GR-D-010 $(10 \mathrm{~g})$ |

Solid state auto switches should be ordered separately. Click here for auto switch details.

## Applicable auto switches

D-M9N(V)-900, D-M9P(V)-900, D-M9B(V)-900
D-M9NW(V)-900, D-M9PW(V)-900, D-M9BW(V)-900


* Please contact SMC for non-standard strokes as they are produced as special orders.

[^83]For details, refer to the Web Catalog.


## 12 Driver type*1

| Nil | Compatible drivers | Power supply voltage [V] |
| :---: | :---: | :---: |
| A1 | LECSA1-S $\square$ | - |
| A2 | LECSA2-S $\square$ | 100 to 120 |
| B2 | LECSB2-T $\square$ | 200 to 230 |
| C2 | LECSC2-T $\square$ | 200 to 240 |
| S2 | LECSS2-T $\square$ | 230 to 240 |

*1 When a driver type is selected, a cable is included. Select the cable type and cable length.
Example)
S2S2: Standard cable (2 m) + Driver (LECSS2)
S2: Standard cable (2 m)
Nil: Without cable and driver

## (13) IIO cable length [m] $]^{* 1}$

| Nil | Without cable |
| :---: | :---: |
| $\mathbf{H}$ | Without cable (Connector only) |
| $\mathbf{1}$ | 1.5 |

*1 When "Nil: Without driver" is selected for the driver type, only "Nil: Without cable" can be selected.
Refer to the Web Catalog if an I/O cable is required.

## Compatible Drivers

| Driver type | Pulse input type/ Positioning type | Pulse input type | CC-Link direct input type |  |
| :---: | :---: | :---: | :---: | :---: |
| Series | LECSA | LECSB-T | LECSC-T | LECSS-T |
| Number of point tables | Up to 7 | Up to 255 | Up to 255 (2 stations occupied) |  |
| Pulse input | $\bigcirc$ | $\bigcirc$ | - | - |
| Applicable network | - | - | CC-Link | SSCNET III/H |
| Control encoder | Incremental 17-bit encoder | Absolute 22-bit encoder | Absolute 18-bit encoder | Absolute 22-bit encoder |
| Communication function | USB communication | USB communication, RS422 communication | USB communication, RS422 communication | USB communication |
| Power supply voltage [V] | $\begin{aligned} & 100 \text { to } 120 \text { VAC }(50 / 60 \mathrm{~Hz}) \\ & 200 \text { to } 230 \text { VAC }(50 / 60 \mathrm{~Hz}) \end{aligned}$ | 200 to 240 VAC (50/60 Hz) | 200 to 230 VAC (50/60 Hz) | 200 to 240 VAC (50/60 Hz) |

## 

How to Order
 with secondary batteries
1 Accuracy

| Nil | Basic type |
| :---: | :---: |
| $\mathbf{H}$ | High-precision type |


| 2 Size |
| :---: |
| 25 |
| 32 |


| 3 Bearing type |
| :--- |
| M |
| S |

4 Motor mounting position

| Nil | Top side parallel |
| :---: | :---: |
| D | In-line |

## 5 Motor type

| Symbol | Type | Output [W] | $\begin{gathered} 2 \\ \text { Size } \end{gathered}$ | (12) <br> Driver type | Compatible drivers |
| :---: | :---: | :---: | :---: | :---: | :---: |
| V6*1 | AC servo motor (Absolute encoder) | 100 | 25 | M2 | LECYM2-V5 |
|  |  |  |  | U2 | LECYU2-V5 |
| V7 |  | 200 | 32 | M2 | LECYM2-V7 |
|  |  |  |  | U2 | LECYU2-V7 |

*1 For motor type V6, the compatible driver part number suffix is V5.
6 Lead [mm]

| Symbol | LEYG25 | LEYG32*1 |
| :---: | :---: | :---: |
| A | 12 | $16(20)$ |
| B | 6 | $8(10)$ |
| C | 3 | $4(5)$ |

*1 The values shown in () are the leads for the top side parallel motor type. (Equivalent leads which include the pulley ratio [1.25:1])

| 9 Guide option |
| :--- |
| Nil |
| F |

* Only available for the sliding bearing


## 7 Stroke [mm]

| $\mathbf{3 0}$ | 30 |
| :---: | :---: |
| to | to |
| $\mathbf{3 0 0}$ | 300 |

* For details, refer to the applicable stroke table below.
* There is a limit for mounting the size 32 top side parallel motor type and strokes of 50 mm or less. Refer to the dimensions.

10 Cable type*1

| Nil | Without cable |
| :---: | :---: |
| $\mathbf{S}$ | Standard cable |
| $\mathbf{R}$ | Robotic cable |

*1 A motor cable and encoder cable are included with the product.
The motor cable for lock option is included when the motor with lock option is selected.


* When "With lock" is selected for the top side parallel motor type, the motor body will stick out from the end of the body for size 25 with strokes of 30 mm or less. Check for interference with workpieces before selecting a model.

(1) Cable length $[m]^{* 1}$

| $\mathbf{N i l}$ | Without cable |
| :---: | :---: |
| $\mathbf{3}$ | 3 |
| $\mathbf{5}$ | 5 |
| $\mathbf{A}$ | 10 |
| $\mathbf{C}$ | 20 |

*1 The length of the motor and encoder cables are the same. (For with lock)

Solid state auto switches should be ordered separately. Click here for auto switch details.

## Applicable auto switches

D-M9N(V)-900, D-M9P(V)-900, D-M9B(V)-900 D-M9NW(V)-900, D-M9PW(V)-900, D-M9BW(V)-900

* Please contact SMC for non-standard strokes as they are produced as special orders.


## Applicable Stroke Table

- Standard

$\left.$| Model | Stroke <br> imm] | $\mathbf{3 0}$ | $\mathbf{5 0}$ | 100 | 150 | 200 | 250 | $\mathbf{3 0 0}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | | Manufacturable |
| :---: |
| stroke range | \right\rvert\,


| Replacement Parts/Grease Pack |  |
| :---: | :---: |
| Applied portion | Order no. |
| Piston rod | GR-D-005 $(5 \mathrm{~g})$ |
| Guide rod | GR-D-010 $(10 \mathrm{~g})$ |

* Copper and zinc materials are used for the motors, cables, controllers/drivers.
* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

## 12 Driver type

| Nil | Compatible drivers | Power supply voltage [V] |
| :---: | :---: | :---: |
| M2 | LECYM2-V $\square$ | - |
| U2 | LECYU2-V $\square$ | 200 to 230 |

* When a driver type is selected, a cable is included. Select the cable type and cable length.


## (13) IO cable length [m]*

| Nil | Without cable |
| :---: | :---: |
| $\mathbf{H}$ | Without cable (Connector only) |
| $\mathbf{1}$ | 1.5 |

*1 When "Nil: Without driver" is selected for the driver type, only "Nil: Without cable" can be selected.
Refer to the Web Catalog if an I/O cable is required.

## Compatible Drivers

| Driver type | IIMECHATROLINK-II type | IM MECHATROLINK-III type |
| :---: | :---: | :---: |
| Series | LECYM | LECYU |
| Applicable network | MECHATROLINK-I | MECHATROLINK-III |
| Control encoder | Absolute 20-bit encoder |  |
| Communication device | USB communication, RS-422 communication |  |
| Power supply voltage [V] | 200 to 230 VAC ( $50 / 60 \mathrm{~Hz}$ ) |  |

# Electric Actuator  25A-LEYG Series 



Series compatible with secondary batteries

6 Lead [mm]

| Symbol | LEYG25 | LEYG32*1 |
| :---: | :---: | :---: |
| A | 12 | $16(20)$ |
| B | 6 | $8(10)$ |
| C | 3 | $4(5)$ |

*1 The values shown in () are the leads for the size 32 top side parallel motor type. Except mounting type NM1 (Equivalent leads which include the pulley ratio [1.25:1])
(2) Size

Accuracy
Nil Basic type H High-precision type
3

| Bearing type |  |
| :---: | :---: |
| $\mathbf{M}$ | Sliding bearing |
| $\mathbf{L}$ | Ball bushing bearing |


| 7 | Stroke $[\mathrm{mm}]$ |
| :---: | :---: |
| $\mathbf{3 0}$ | 30 |
| to | to |
| $\mathbf{3 0 0}$ | 300 |

* Refer to the applicable stroke table.
Applicable Stroke Table

| 8 Guide option |
| :--- |
| Nil |
| F |
| Without option |
| With grease |
| retaining function |

* Only available for sliding bearing
- Standard

$\left.$| Model | Stroke <br> $[\mathrm{mm}]$ | $\mathbf{3 0}$ | $\mathbf{5 0}$ | $\mathbf{1 0 0}$ | $\mathbf{1 5 0}$ | $\mathbf{2 0 0}$ | $\mathbf{2 5 0}$ | $\mathbf{3 0 0}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | | anufacturable |
| :---: |
| stroke range | \right\rvert\,

* Please contact SMC for non-standard strokes as they are produced as special orders.
$\qquad$
* Refer to the "Compatible Motors." Replacement Parts/Grease Pack | Applied portion | Order no. |
| :---: | :---: |
| Piston rod | GR-D-005 $(5 \mathrm{~g})$ |
| Guide rod | GR-D-010 $(10 \mathrm{~g})$ |

Compatible Motors and Mounting Types*4

| Applicable motor model |  | Size/Mounting type |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Manufacturer | Series | 25 |  |  |  |  |  | 32 |  |  |  |  |  |  |  |  |
|  |  | NZ | NY | NX | NM1 | NM2 | NM3 | NZ | NY | NX | NW | NV | NU | NT | NM1 | NM2 |
| Mitsubishi Electric Corporation | MELSERVO JN/44/J5 | $\bigcirc$ | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - |
| YASKAWA Electric Corporation | $\Sigma-\mathrm{V} / 7 / \mathrm{X}$ | ** | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - |
| SANYO DENKI CO., LTD. | SANMOTION R | $\bigcirc$ | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - |
| OMRON Corporation | OMNUC G5/1S | $\bigcirc$ | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Panasonic Corporation | MINAS A5/A6 | $\underset{\text { (MHMF only) }}{\boldsymbol{\ominus}}$ | $\bigcirc$ | - | - | - | - | - | - | - | - | - | - | - | - | - |
| FANUC CORPORATION | $\beta$ is (-B) | $\bigcirc$ | - | - | - | - | - | $\underset{\text { ( } \beta 1 \text { only }}{\boldsymbol{\ominus}}$ | - | - | $\bigcirc$ | - | - | - | - | - |
| NIDEC SANKYO CORPORATION | S-FLAG | $\bigcirc$ | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| KEYENCE CORPORATION | SV/SV2 | *3 | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - |
| FUJI ELECTRIC CO., LTD. | ALPHA7 | $\bigcirc$ | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - |
| MinebeaMitsumi Inc. | Hybrid stepping motors | - | - | - | * ${ }^{1}$ | - | *2 | - | - | - | - | - | - | - | $\bigcirc$ | - |
| Shinano Kenshi Co., Ltd. | CSB-BZ | - | - | - | * * 1 | - | * *2 | - | - | - | - | - | - | - | - | - |
| ORIENTAL MOTOR Co., Ltd. | $\alpha$ STEP AR/AZ | - | - | - | - | AR/AZ <br> (46 only) | - | - | - | - | - | - | - | - | - | $\bigcirc$ |
| FASTECH Co., Ltd. | Ezi-SERVO | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - | - | $\bigcirc$ | - |
| Rockwell Automation, Inc. (Allen-Bradley) | $\begin{gathered} \text { Kinetix MP/VP/ } \\ \text { TL } \\ \hline \end{gathered}$ | (TL only) | - | - | - | - | - | - | - | $\begin{gathered} \mathbf{O}^{*} \\ \text { (MPNP only) } \end{gathered}$ | - | - | - | $\begin{array}{\|c\|} \hline \boldsymbol{\top} \text { ( only) } \\ \hline \end{array}$ | - | - |
| Beckhoff Automation GmbH | AM 30/31/80/81 | $\bigcirc$ | - | - | - | - | - | - | - | $\begin{array}{\|c\|} \hline \begin{array}{c} \boldsymbol{Q}^{* 1} \\ \text { (AM80AM81 } \\ \text { only) } \end{array} \\ \hline \end{array}$ | - | $\underset{(\mathrm{AM} 30}{\boldsymbol{-} 1}$ only) | (AM31 only) | - | - | - |
| Siemens AG | SIMOTICS S-1FK7 | - | - | $\bigcirc$ | - | - | - | - | - | -*1 | - | - | - | - | - | - |
| Delta Electronics, Inc. | ASDA-A2 | $\bigcirc$ | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - |
| ANCA Motion | AMD2000 | $\bigcirc$ | - | - | - | - | - | $\bigcirc$ | - | - | - | - | - | - | - | - |

*1 Motor mounting position: In-line only *2 Motor mounting position: Parallel only
*3 For some motors, the connector may protrude from the motor body. Be sure to check for interference with the mounting surface before selecting a motor.
*4 The compatible motors and mounting types are typical examples. Select the mounting type after referring to the "Motor Mounting, Applicable Motor Dimensions" tables on the "Dimensions" pages.

Solid state auto switches should be ordered separately.
Click here for auto switch details.

## Applicable auto switches

D-M9N(V)-900, D-M9P(V)-900, D-M9B(V)-900
D-M9NW(V)-900, D-M9PW(V)-900, D-M9BW(V)-900

* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the Web Catalog.

# 25A-Series <br> Applicable Auto Switches 

## Applicable Cylinder Series


*1 The D-A90L-900 and D-A93L-900 cannot be mounted on $\varnothing 4$. * Solid state auto switches marked with a "O" are produced upon receipt of order.
Ordering the Auto Switches
Please be aware that the order part numbers for the cylinder mounted and individual auto switches are different.
(Example) Part number for ordering D-M9BWL-900:

| - Cylinder mounted type: $25 A-C D J 2 L 16-60 Z-M 9 B W L-B ~$ | $*$ Lead wire length symbols: $0.5 \mathrm{~m} \ldots . . . . . . . . \mathrm{Nil}$ | (Example) M9NW |
| :--- | :--- | :--- | :--- |
| (Omit the first "D-" and the last "-90" or "-901".) | $1 \mathrm{~m} \ldots \ldots \ldots \ldots . \mathrm{M}$ | (Example) M9NWM |
| - Individual auto switch: D-M9BWL-900 | $3 \mathrm{~m} \ldots \ldots \ldots \ldots . \mathrm{L}$ | (Example) M9NWL |
| (Place the order with the part number for auto switch shown in the table above.) | $5 \mathrm{~m} \ldots \ldots \ldots \ldots . \mathrm{Z}$ | (Example) M9NWZ |

Applicable Auto Switches 25A-Series
Compact cylinders $\quad$ Rodless cylinders



| 1 | 1 | 1 | 1 | - | - 1 | \| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | I | 1 | I | 1 |  |  | \| | 1 | 1 |  |  |  | 1 | 1 | \| | \| | I | I |  |  |  |  |  |  | - | - | - | - | - | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \| | 1 | 1 | 1 | 1 | - | - | - | 1 | 1 | 1 | 1 | I | 1 | 1 | 1 | 1 | 1 |  |  | 1 | 1 | I |  |  |  |  |  |  | \| | 1 | I |  |  |  |  |  |  | - | - | - | - | - | - | - |
| I | I | 1 | 1 | - | - I | 1 | 1 | \| | I | 1 | 1 | I | 1 | 1 | 1 | 1 | 1 |  |  | 1 | I | 1 |  |  |  |  |  |  | \| | 1 | I |  |  |  |  | - | - | - | - | - | - | - | - | - |
| \| | 1 | I | 1 | - | - I | 1 | 1 | I | \| | 1 | 1 | \| | 1 | 1 | 1 | 1 | 1 |  |  | 1 | 1 | 1 |  |  |  | 1 |  | 1 | 1 | 1 | I |  |  |  |  |  |  | - | - | - | - | - | - | - |
| I | 1 | I | 1 | - | - | \| | 1 | 1 | I | 1 | 1 | I | 1 | 1 | 1 | 1 | I |  |  | 1 | 1 | 1 |  |  |  |  |  |  | 1 | 1 | 1 |  |  |  |  | - | - | - | - | - | - | - | - | - |
| I | 1 | 1 | 1 | - | - 1 | 1 | 1 | I | I | 1 | 1 | 1 | 1 | I | I | 1 | I |  |  | 1 | 1 | 1 |  |  |  |  |  | 1 | 1 | 1 | 1 |  |  |  |  | - |  | - | - | - | - | - | - | - |
| I | 1 | I | 1 | - | - 1 | 1 | 1 | I | \| | 1 | I | 1 | 1 | I | 1 | 1 | I |  |  | 1 | \| | 1 |  |  |  |  |  | 1 | 1 | I | I |  |  |  |  |  |  | - | - | - | - | - | - | - |
| I | 1 | I | 1 | - | - I | 1 | 1 | I | \| | 1 | I | 1 | 1 | I | 1 | 1 | I |  |  | 1 | 1 | 1 |  |  |  | , |  | I | 1 | I | I |  |  |  |  |  |  | - | - | - | - | - | - | - |
| \| | 1 | 1 | 1 | - | - | 1 | 1 | - | - | - | - | - | - | - | - | - | - |  |  | 1 | 1 | 1 |  | I |  |  |  | 1 | 1 | I | I |  |  |  |  |  |  | - | - | - | - | - | - | - |
| I | I | I | I | - | - 1 | 1 | 1 | I | 1 | I | I | \| | \| | I | \| | 1 | 1 |  |  | 1 | 1 | 1 |  |  |  |  |  | 1 | 1 | I | 1 |  |  |  |  | - |  | - | - | - | - | - | - | - |
| \| | 1 | I | 1 | - | - 1 | 1 | 1 | 1 | I | \| | 1 | I | 1 | \| | 1 | 1 | 1 |  |  | 1 | $\mid$ | I |  | 1 |  |  |  | 1 | 1 | 1 | I |  |  |  |  |  |  | - | - | - | - | - | - | - |
| 1 | 1 | I | I | - | - 1 | 1 | 1 | I | 1 | \| | I | 1 | I | I | \| | 1 | 1 |  |  | 1 | \| | 1 |  |  |  | , |  |  |  | I | I |  |  |  |  |  | - | - | - | - | - | - | - | - |
| 1 | I | 1 | - | 1 | $\dagger$ | 1 | 1 | 1 | 1 | \| | 1 | 1 | I | 1 | 1 | 1 | 1 |  |  | 1 | 1 | 1 |  | - |  |  |  | - |  | - |  |  |  |  |  |  |  | 1 | 1 | I | 1 | 1 | 1 | 1 |
| 1 | 1 | I | - | 1 | \| | | 1 | 1 | 1 | 1 | I | I | 1 | I | 1 | 1 | 1 | 1 |  |  | I | 1 | 1 | - | - |  |  |  | - |  | - |  |  |  |  |  | - |  | - | - | - | - | - | - | - |
| I | 1 | 1 | 1 | - | - I | 1 | 1 | 1 | I | \| | 1 | 1 | I | 1 | 1 | 1 | 1 |  | 1 | I | 1 | \| |  | 1 |  |  |  |  |  | \| | 1 |  |  |  |  |  |  | - | - | - | - | - | - | - |
| \| | 1 | 1 | - | 1 | 1 | 1 | 1 | 1 | I | \| | 1 | I | I | 1 | 1 | 1 | 1 |  | I | 1 | 1 | 1 |  | - |  |  |  | - |  | - |  |  |  |  |  | - |  | - | - | - | - | - | - | - |
| I | 1 | 1 | 1 | - | - I | 1 | 1 | \| | I | \| | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  | I | 1 | 1 | \| |  | 1 |  | I |  | 1 | 1 | I | I |  |  |  |  | - |  | - | - | - | - | - | - | - |
| \| | 1 | 1 | - | 1 | 1 | 1 | 1 | 1 | 1 | \| | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  | I | 1 | 1 | 1 |  | - |  |  |  |  |  | - |  |  |  |  |  | - |  | - | - | - | - | - | - | - |
| I | 1 | 1 | 1 | - | - I | 1 | 1 | 1 | I | \| | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  | I | 1 | 1 | 1 |  | 1 |  | , | , | I | 1 | I | 1 |  |  |  |  |  |  | - | - | - | - | - | - | - |
| I | 1 | 1 | 1 | - | - 1 | 1 | 1 | 1 | 1 | \| | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  | 1 | 1 | 1 | 1 |  | 1 |  |  |  |  | 1 | I | 1 |  |  |  |  | - |  | - | - | - | - | - | - | - |
| I | \| | 1 | 1 | - | - I | 1 | I | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  | 1 | 1 | 1 | 1 |  | 1 |  | 1 |  |  | 1 | I | 1 |  |  |  |  |  |  | - | - | - | - |  | - | - |
| I | 1 | 1 | 1 | $\bigcirc$ | - I | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  | 1 | 1 | 1 | 1 |  | 1 |  | , |  |  | 1 | I | 1 |  |  |  | - | - |  | - | - | - | - | - | - | - |
| I | 1 | 1 | 1 | $\bigcirc$ | - \| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | I | 1 | 1 | 1 | 1 |  | 1 | 1 | 1 | 1 |  | 1 |  |  |  |  | 1 | I | 1 |  |  |  |  |  |  | - | 1 | 1 | 1 | - | - | - |
| \| | \| |  | - | - | - \| | 1 | 1 | 1 | 1 | \| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | \| | 1 | 1 | 1 |  |  |  |  | 11 | \| |  |  |  |  |  |  |  | - | 1 | 1 | 1 | - | - | - |

## 25A- Series

## Applicable Cylinder Series




## Applicable Rotary Actuator Series



* Solid state auto switches marked with a "○" are produced upon receipt of order.
* Note that the individual auto switch with part number of "S $\square \square$ " and "T $\square \square$ " have the right-hand-type ( $\square \square \square 1$ ) and the left-hand-type ( $\square \square \square 2$ ). When you order the actuator with two auto switches at the part number of the actuator, one each of the right-hand-type and the left-hand-type are shipped together with the actuator.
* When the MHZ2-10, MHZL2-10, MHL2-10 to 40, or MHS3-32 air gripper is ordered with auto switch, mounting brackets are supplied with the air gripper. When the auto switch is used at the square groove on the side with other cylinder bore sizes, or ordering only auto switches separately, mounting brackets (90-BMG2-012) are required. Order them separately. For details, refer to page 325.


## Ordering the Auto Switches

Please be aware that the order part numbers for the rotary actuator mounted and individual auto switches are different. (Example) Part number for ordering D-M9BWL-900:

*1 Lead wire for a solid state auto switch with "-901" at the end of part number has been changed to a cable for a robot use.

Applicable Air Gripper Series

| Auto switches |  |  |  |  |  |  |  |  |  |  |  | Air grippers |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type | Special function | Electrical entry | $\begin{array}{\|l\|l\|} \hline \text { ndicator } \\ \text { light } \end{array}$ | Wiring (Output) | Electrical entry direction | Auto switch model | Lead wire length [m] |  |  |  | Pre-wied comector | JMHZ2 | $\begin{aligned} & \text { JMHZ2 } \\ & -\times 6900 \\ & \hline \end{aligned}$ | $\begin{array}{\|c\|} \hline \mathrm{JMHZ2} \\ -\mathrm{X} 7460 \end{array}$ | MHZ2 | MHZL2 | MHZJ2 | $\begin{array}{\|c\|c\|} \hline \text { MHZJ2 } & \text { MHZL2 } \\ \hline-\mathrm{X} 6100 & -\mathrm{K} 5955 \\ \hline \end{array}$ |  |
|  |  |  |  |  |  |  | 0.5 | 1 | 3 | 5 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | Nil | M | L | Z | SDPC | 8 to 20 | 8 to 20 | 8 to 20 | 10 to 40 | 10 to 25 | 10 to 25 | 32, 40 | 10 to 20 |
| Solid state auto switch | - |  |  | 3 -wire (NPN) | In-line | D-M9N-900 | $\bullet$ | $\bullet$ | $\bullet$ | $\bigcirc$ | - | $\bullet$ | - | - | $\bullet$ | $\bullet$ | - | - | $\bullet$ |
|  |  |  |  | 3 -wire (PNP) |  | D-M9P-900 | - | $\bullet$ | $\bullet$ | $\bigcirc$ | - | $\bullet$ | - | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |
|  |  |  |  | 2-wire |  | D-M9B-900 | - | $\bullet$ | $\bullet$ | $\bigcirc$ | - | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | - | - | $\bullet$ | $\bullet$ |
|  |  |  |  | 3 -wire (NPN) | Perpendicular | D-M9NV-900 | - | $\bullet$ | $\bullet$ | $\bigcirc$ | - | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |
|  |  |  |  | 3 -wire (PNP) |  | D-M9PV-900 | $\bullet$ | $\bullet$ | $\bullet$ | $\bigcirc$ | - | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |
|  |  |  |  | 2-wire |  | D-M9BV-900 | - | $\bullet$ | $\bullet$ | $\bigcirc$ | - | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |
|  | Diagnostic indication (2-200brindicialo) |  |  | 3 -wire (NPN) | In-line | D-M9NW-900 | - | $\bullet$ | $\bullet$ | $\bigcirc$ | - | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |
|  |  |  |  | 3 -wire (PNP) |  | D-M9PW-900 | - | $\bullet$ | $\bullet$ | $\bigcirc$ | - | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | - | $\bullet$ | $\bullet$ | $\bullet$ |
|  |  |  |  | 2-wire |  | D-M9BW-900 | $\bullet$ | $\bullet$ | $\bullet$ | $\bigcirc$ | $\bigcirc$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |
|  |  |  |  | 3 -wire (NPN) | Perpendicular | D-M9NWV-900 | - | $\bullet$ | $\bullet$ | $\bigcirc$ | - | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |
|  |  |  |  | 3 -wire (PNP) |  | D-M9PWV-900 | - | $\bullet$ | $\bullet$ | $\bigcirc$ | - | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |
|  |  |  |  | 2-wire |  | D-M9BWV-900 | $\bullet$ | $\bullet$ | $\bullet$ | $\bigcirc$ | $\bigcirc$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |
|  | Diagnostic indication (2-cobor indicator) |  |  | 3 -wire (NPN) | In-line | D-Y59A-900 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | $\bullet$ | $\bullet$ | - | - | - |
|  |  |  |  | 3 -wire (PNP) |  | D-Y7P-900 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | $\bullet$ | $\bullet$ | - | - | - |
|  |  |  |  | 2-wire |  | D-Y59B-900 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | $\bullet$ | $\bullet$ | - | - | - |
|  |  |  |  | 3 -wire (NPN) | Perpendicular | D-Y69A-900 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | $\bullet$ | $\bullet$ | - | - | - |
|  |  |  |  | 3 -wire (PNP) |  | D-Y7PV-900 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | $\bullet$ | $\bullet$ | - | - | - |
|  |  |  |  | 2-wire |  | D-Y69B-900 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | $\bullet$ | $\bullet$ | - | - | - |
|  |  |  |  | 3 -wire (NPN) | In-line | D-Y7NW-900 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | $\bullet$ | $\bullet$ | - | - | - |
|  |  |  |  | 3 -wire (PNP) |  | D-Y7PW-900 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | $\bullet$ | $\bullet$ | - | - | - |
|  |  | Grommet |  | 2-wire |  | D-Y7BW-900 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | $\bullet$ | $\bullet$ | - | - | - |
|  |  |  | Yes | 3 -wire (NPN) | Perpendicular | D-Y7NWV-900 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | $\bullet$ | $\bullet$ | - | - | - |
|  |  |  |  | 3 -wire (PNP) |  | D-Y7PWV-900 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | $\bullet$ | $\bullet$ | - | - | - |
|  |  |  |  | 2-wire |  | D-Y7BWV-900 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | $\bullet$ | $\bullet$ | - | - | - |
|  | - |  |  |  | In-line | D-S991-901*1 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | - | - | - | - | - |
|  |  |  |  | 3 -wire (NPN) |  | D-S992-901*1 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | - | - | - | - | - |
|  |  |  |  | 3 wie (PNP) |  | D-S9P1-901*1 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | - | - | - | - | - |
|  |  |  |  | 3 -wire (PNP) |  | D-S9P2-901*1 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | - | - | - | - | - |
|  |  |  |  |  |  | D-T991-901*1 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | - | - | - | - | - |
|  |  |  |  | 2-wire |  | D-T992-901*1 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | - | - | - | - | - |
|  |  |  |  | 3 -wire (NPN) | Perpendicular | D-S99V1-901*1 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | - | - | - | - | - |
|  |  |  |  | 3 -wire (NPN) |  | D-999V2-901*1 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | - | - | - | - | - |
|  |  |  |  | 3ino (PNP) |  | D-S9PV1-901*1 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | - | - | - | - | - |
|  |  |  |  | 3 -wie (PNP) |  | D-S9PV2-901*1 | $\bullet$ | - | $\bullet$ | 0 | - | - | - | - | - | - | - | - | - |
|  |  |  |  |  |  | D-T99V1-901*1 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | - | - | - | - | - |
|  |  |  |  | 2-wire |  | D-T99V2-901*1 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | - | - | - | - | - |
|  |  |  |  |  | In-line | D-S791-901*1 | $\bullet$ | - | $\bullet$ | 0 | - | - | - | - | - | - | - | - | - |
|  |  |  |  | 3 -wire (NPN) |  | D-S792-901*1 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | - | - | - | - | - |
|  |  |  |  |  |  | D-S7P1-901*1 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | - | - | - | - | - |
|  |  |  |  | 3 -wire (PNP) |  | D-S7P2-901*1 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | - | - | - | - | - |
|  |  |  |  | 2-wire |  | D-T791-901*1 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | - | - | - | - | - |
|  |  |  |  |  |  | D-T792-901*1 | $\bullet$ | - | $\bullet$ | $\bigcirc$ | - | - | - | - | - | - | - | - | - |
|  | - | Grommet | Yes <br> No | 2-wire | In-line | D-A93L-900 | - | - | $\bullet$ | - | - | - | - | - | - | - | - | - | - |
| swith |  |  |  |  |  | D-A90L-900 | - | - | $\bullet$ | - | - | - | - | - | - | - | - | - | - |

* Solid state auto switches marked with a "○" are produced upon receipt of order.
* Note that the individual auto switch with part number of "S $\square \square$ " and "T $\square \square$ " have the right-hand-type ( $\square \square \square 1$ ) and the left-hand-type ( $\square \square \square 2$ ). When you order the actuator with two auto switches at the part number of the actuator, one each of the right-hand-type and the left-hand-type are shipped together with the actuator.
* When the MHZ2-10, MHZL2-10, MHL2-10 to 40, or MHS3-32 air gripper is ordered with auto switch, mounting brackets are supplied with the air gripper. When the auto switch is used at the square groove on the side with other cylinder bore sizes, or ordering only auto switches separately, mounting brackets (90-BMG2-012) are required. Order them separately. For details, refer to page 325.


## Ordering the Auto Switches

Please be aware that the order part numbers for the air gripper mounted and individual auto switches are different. (Example) Part number for ordering D-M9BWL-900:


[^84]
## Applicable Air Gripper Series



* Solid state auto switches marked with a " $\bigcirc$ " are produced upon receipt of order.
* Note that the individual auto switch with part number of "S $\square \square$ " and "T $\square \square$ " have the right-hand-type ( $\square \square \square 1$ ) and the left-hand-type ( $\square \square \square 2$ ). When you order the actuator with two auto switches at the part number of the actuator, one each of the right-hand-type and the left-hand-type are shipped together with the actuator.
* When the MHZ2-10, MHZL2-10, MHL2-10 to 40, or MHS3-32 air gripper is ordered with auto switch, mounting brackets are supplied with the air gripper. When the auto switch is used at the square groove on the side with other cylinder bore sizes, or ordering only auto switches separately, mounting brackets (90-BMG2-012) are required. Order them separately. For details, refer to page 325.


## Ordering the Auto Switches

Please be aware that the order part numbers for the air gripper mounted and individual auto switches are different. (Example) Part number for ordering D-M9BWL-900:

| - Air gripper mounted type: $25 A-M H Z 2-16 D-M 9 B W L$ | $*$ Lead wire length symbols: $0.5 \mathrm{~m} \ldots . . . . . . . . \mathrm{Nil}$ | (Example) M9NW |
| :--- | :--- | :--- | :--- |
| (Omit the first "D-" and the last "-900" or "-901".) | $1 \mathrm{~m} \ldots \ldots \ldots \ldots . \mathrm{M}$ | (Example) M9NWM |
| - Individual auto switch: D-M9BWL-900 | $3 \mathrm{~m} \ldots \ldots \ldots \ldots \mathrm{~L}$ | (Example) M9NWL |
| (Place the order with the part number for auto switch shown in the table above.) | $5 \mathrm{~m} \ldots \ldots \ldots . . \mathrm{Z}$ | (Example) M9NWZ |

*1 Lead wire for a solid state auto switch with "-901" at the end of part number has been changed to a cable for a robot use.

## Applicable Electric Actuator Series

| Auto switches |  |  |  |  |  |  |  |  |  |  |  | Electric actuators |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Special function | Electrical entry | Indicator light | Wiring (Output) | Electrical entry direction | Auto switch model | Lead wire length [m] |  |  |  | Pre-wired connector SDPC | LEJS | LEKFS | LEY | LEYG |
| Type |  |  |  |  |  |  | 0.5 Nil | 1 | 3 | Z |  | 40 to 63 | 16 to 40 | 16 to 40 | 16 to 40 |
| Solid state auto switch | - | Grommet | Yes | 3-wire (NPN) | In-line | D-M9N-900 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | - | - | - | - |
|  |  |  |  | 3-wire (PNP) |  | D-M9P-900 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ |
|  |  |  |  | 2-wire |  | D-M9B-900 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  |  | 3-wire (NPN) | Perpendicular | D-M9NV-900 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  |  | 3-wire (PNP) |  | D-M9PV-900 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  |  | 2-wire |  | D-M9BV-900 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  | Diagnostic indication (2-color indicator) |  |  | 3-wire (NPN) | In-line | D-M9NW-900 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  |  | 3-wire (PNP) |  | D-M9PW-900 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  |  | 2-wire |  | D-M9BW-900 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  |  | 3-wire (NPN) | Perpendicular | D-M9NWV-900 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  |  | 3-wire (PNP) |  | D-M9PWV-900 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  |  |  |  | 2-wire |  | D-M9BWV-900 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ | - | $\bigcirc$ |

* Solid state auto switches marked with a "○" are produced upon receipt of order.
* Auto switches cannot be ordered with the actuator part number. They should be ordered separately. Please refer below for ordering.


## Ordering the Auto Switches

[^85]
# 25A-Series <br> Auto Switch Mounting 

## Band Mounting Type

 auto switch combinations that are actually possible.Target auto switches: D-M9 $\square-900$, D-M9 $\square$ W-900, D-M9BWSDPC-900, D-M9BWVSDPC-900, D-A90L-900, D-A93L-900

## Auto Switch Mounting Bracket Part Nos.

| Cylinder series | Applicable bore size [mm] |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | 10 | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 |
| $\begin{aligned} & \text { 25A-CDJ2 } \\ & \text { 25A-CDJ2K } \\ & \text { 25A-CDBJ2 } \end{aligned}$ | - | *1 <br> 25A-BJ7-010S | - | *1 <br> 25A-BJ7-016S | - | - | - | - | - | - | - | - |
| 25A-CD85*4 | 25A-BJ7-008S | 25A-BJ7-010S | 25A-BJ7-012S | 25A-BJ7-016S | 25A-BM6-020S | 25A-BM6-025S | - | - | - | - | - | - |
| 25A-CDM2 | - | - | - | - | *2 <br> 25A-BM6-020S | $\begin{gathered} * 2 \\ 25 A-B M 6-025 S \end{gathered}$ | *2 <br> 25A-BM6-032S | $\begin{gathered} * 2 \\ 25 A-B M 6-040 S \end{gathered}$ | - | - | - | - |
| $\begin{aligned} & \text { 25A-CDG1 } \\ & \text { 25A-CDBG1 } \end{aligned}$ | - | - | - | - | $\begin{gathered} * 3 \\ 25 A-B M A 4-020 S \end{gathered}$ | $\begin{gathered} * 3 \\ 25 A-B M A 4-0255 \end{gathered}$ | *3 <br> 25A-BMA4-032S | $\begin{gathered} * 3 \\ 25 A-B M A 4-0400 \end{gathered}$ | *3 <br> 25A-BMA4-050S | *3 <br> 25A-BMA4-063S | - | - |
| 25A-MGG | - | - | - | - | $\begin{gathered} * 3 \\ 25 A-B M A 4-020 S \end{gathered}$ | $\begin{gathered} * 3 \\ 25 A-B M A 4-0255 \end{gathered}$ | $\begin{gathered} * 3 \\ 25 A-B M A 4-032 S \end{gathered}$ | *3 25A-BMA4-040S | $\begin{gathered} * 3 \\ 25 A-B M A 4-050 S \end{gathered}$ | - | - | - |

*1 The combination of the auto switch mounting band (BJ2- $\square \square \square \mathrm{S} /$ with a stainless steel screw) and the holder set (BJ3-1).
*2 The combination of the auto switch mounting band (for BM2- $\square \square \square$ ) and stainless steel screw (BBA4), and the holder set (BJ3-1).
*3 The combination of the auto switch mounting band (for BMA2- $\square \square \square$ ) and stainless steel screw (BBA4), and the holder set (BJ3-1).
*4 D-A90L-900 and D-A93L-900 auto switches cannot be mounted on bore size $\varnothing 8$, $\varnothing 10$, or $\varnothing 12$ cylinders.


Applicable cylinder series: 25A-CDG1, 25A-CDBG1
Applicable auto switches: D-G5 $\square-900$, D-K59-900, D-G5 $\square$ W-900,

> D-K59W-900, D-K59WSDPC-900

## Auto Switch Mounting Bracket Part Nos.



## Tie-rod Mounting Type

Target auto switches: D-M9 $\square-900$, D-M9 $\square$ V-900, D-M9 $\square$ W-900, D-M9 $\square W V-900, ~ D-M 9 B W S D P C-900, ~ D-M 9 B W V S D P C-900 ~$ : D-A90L-900, D-A93L-900

Auto Switch Mounting Bracket Part Nos.

| Cylinder series | Applicable bore size [mm] |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 140 | 160 | 200 |
| 25A-MDB | 90-BMB5-032 | 90-BMB5-032 | 90-BA7-040 | 90-BA7-040 | 90-BA7-063 | 90-BA7-063 | - | - | - | - |
| 25A-C96SD | 90-BMB5-032 | 90-BMB5-032 | 90-BA7-040 | 90-BA7-040 | 90-BA7-063 | 90-BA7-063 | 90-BA7-080 | - | - | - |
| 25A-CDA2 | - | 90-BA7-040 | 90-BA7-040 | 90-BA7-063 | 90-BA7-080 | 90-BA7-080 | - | - | - | - |
| $\begin{aligned} & \text { 25A-CDS2 } \\ & \text { 25A-CDNS } \end{aligned}$ | - | - | - | - | - | - | 25A-BS6-125 | 25A-BS6-125 | 25A-BS6-160 | - |
| 25A-MDWB | 90-BMB5-032 | 90-BMB5-032 | 90-BA7-040 | 90-BA7-040 | 90-BA7-063 | 90-BA7-063 | - | - | - | - |
| 25A-C95SD | - | - | - | - | - | - | - | - | 25A-BS6-160 | 25A-BS6-160 |



Auto switch mounting bracket

# Auto Switch Mounting 

Target auto switches: D-M9N(V)-900, D-M9P(V)-900, D-M9B(V)-900, D-M9NW(V)-900, D-M9PW(V)-900, D-M9BW(V)-900, D-A90L-900, D-A93L-900

## Auto Switch Mounting Bracket Part No.

| Cylinder <br> series | Applicable bore size [mm] |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 20 | 25 | 32 | $\mathbf{4 0}$ | $\mathbf{5 0}$ | $\mathbf{6 3}$ | $\mathbf{8 0}$ | 100 |  |
| 25A-CDBQ2 | - | - | $25 A-$ BQ2-032 |  |  | - | - |  |  |



Target auto switches: D-F79-900, D-F7P-900, D-J79-900, D-F7NV-900,
D-F7PV-900, D-F7BV-900, D-F79W-900, D-F7PW-900, D-J79W-900, D-F7NWV-900, D-F7BWV-900

## Auto Switch Mounting Bracket Part No.

| Cylinder <br> series | Applicable bore size [mm] |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{2 0}$ | $\mathbf{2 5}$ | $\mathbf{3 2}$ | $\mathbf{4 0}$ | $\mathbf{5 0}$ | $\mathbf{6 3}$ | $\mathbf{8 0}$ | $\mathbf{1 0 0}$ |  |
| 25A-CDBQ2 | - | - | $25 \mathrm{AQ}-2$ |  |  |  |  |  |  |



## 25A- Series

## Direct Mounting Type

Refer to pages 315 to 322 for the cylinder/air gripper series and auto switch combinations that are actually possible.
For combinations other than those shown in the table below, direct mounting without the use of auto switch mounting brackets is possible

Target auto switches: D-M9 $\square-900$, D-M9 $\square$ V-900, D-M9 $\square$ W-900, D-M9 $\square W V-900$, D-M9BWSDPC-900,

## D-M9BWVSDPC-900

D-F8 $\square$-900
: D-A90L-900, D-A93L-900


Auto switch mounting bracket
90-BMG2-012

Auto switch

## Auto Switch Mounting Bracket Part Nos.

| Cylinder series Air gripper series | Applicable bore size [mm] |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4 | 6 | 10 | 12 | 15 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 |
| 25A-MDU | - | - | - | - | - | - | - | MUZ-025 | MUZ-025 | MUZ-025 | MUZ-025 | MUZ-025 | - | - |
| 25A-MY1B | - | - | - | - | - | Not required | Not required | BMY3-016 | BMY3-016 | BMY3-016 | - | $\begin{array}{\|c\|} \hline 90- \\ \text { BMG2-012 } \\ \hline \end{array}$ | - | - |
| 25A-MY1M | - | - | - | - | - | Not required | Not required | $\begin{array}{c\|} \hline 90- \\ \text { BMG2-012 } \end{array}$ | $\begin{array}{c\|} \hline 90- \\ \text { BMG2-012 } \end{array}$ | $\begin{array}{\|c\|} \hline 90- \\ \text { BMG2-012 } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 90- \\ \text { BMG2-012 } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 90- \\ \text { BMG2-012 } \\ \hline \end{array}$ | - | - |
| 25A-MY1C | - | - | - | - | - | Not required | Not required | $\begin{array}{\|c\|} \hline 90- \\ \text { BMG2-012 } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 90- \\ \text { BMG2-012 } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 90- \\ \text { BMG2-012 } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 90- \\ \text { BMG2-012 } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 90- \\ \text { BMG2-012 } \\ \hline \end{array}$ | - | - |
| 25A-MY1H | - | - | - | - | - | Not required | Not required | BMY3-016 | BMY3-016 | BMY3-016 | - | - | - | - |
| 25A-MY3 $\square$ | - | - | - | - | - | BMY3-016 | BMY3-016 | BMY3-016 | BMY3-016 | BMY3-016 | BMY3-016 | BMY3-016 | - | - |
| 25A-CY3R | - | - | - | - | Not required | - | Not required | $\begin{array}{\|c\|} \hline 90- \\ \text { BMG2-012 } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 90- \\ \text { BMG2-012 } \\ \hline \end{array}$ | $\begin{array}{c\|} \hline 90- \\ \text { BMG2-012 } \\ \hline \end{array}$ | $90-$ BMG2-012 | $\begin{array}{\|c\|} \hline 90- \\ \text { BMG2-012 } \\ \hline \end{array}$ | - | - |
| 25A-RSH | - | - | - | - | - | - | $\begin{array}{c\|} \hline 90- \\ \text { BMG2-012 } \\ \hline \end{array}$ | - | $\begin{array}{\|c\|} \hline 90- \\ \text { BMG2-012 } \\ \hline \end{array}$ | - | - | - | - | - |
| 25A-MHZ2 | - | - | $\begin{gathered} 90- \\ \text { BMG2-012 } \end{gathered}$ | - | - | *1 | *1 | *1 | *1 | *1 | - | - | - | - |
| 25A-MHZL2 | - | - | $\begin{array}{\|c\|} \hline 90- \\ \text { BMG2-012 } \\ \hline \end{array}$ | - | - | *1 | *1 | *1 | - | - | - | - | - | - |
| 25A-MHL2 | - | - | $\begin{array}{\|c\|} \hline 90- \\ \text { BMG2-012 } \\ \hline \end{array}$ | - | - | $\begin{array}{c\|} \hline 90- \\ \text { BMG2-012 } \\ \hline \end{array}$ | $\begin{array}{c\|} \hline 90- \\ \text { BMG2-012 } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 90- \\ \text { BMG2-012 } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 90- \\ \text { BMG2-012 } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 90- \\ \text { BMG2-012 } \\ \hline \end{array}$ | - | - | - | - |
| $\begin{aligned} & \hline \text { 25A-MHS3 } \\ & \text { 25A-MHS4 } \end{aligned}$ | - | - | - | - | - | Not required | Not required | Not required | $\begin{array}{\|c\|} \hline 90- \\ \text { BMG2-012 } \\ \hline \end{array}$ | - | - | - | - | - |

*1 When mounting D-M9 type of auto switch onto the square groove of the side of the air gripper, the auto switch mounting bracket (90-BMG2-012) is required.

## Precautions

## $\triangle$ Caution

## $\square$ Change of material

For the 25A- series, there is a restriction on the use of copper and zinc as main components in the metal materials used. Keep in mind that the aluminum alloy, aluminum die cast, and some of the stainless steel materials contain traces of copper $(\mathrm{Cu})$ and/or zinc $(\mathrm{Zn})$ as an additive element.
However, copper is used in some parts-the coils of solenoid valves, the circuit boards, connector pins, and lead wires of electrical equipment and auto switches, and the motors, cables, and drivers of electric actuators-whose materials cannot be easily changed to alternative materials.
In addition, some magnets (including the surface treatment) contain copper (Cu) and/or zinc ( Zn ). However, due to their magnetic characteristics, it is impossible to use alternative materials.

## - Particle generation (metallic contaminants)

Usage of metal stoppers and/or shock absorbers on an air slide table produces metal-to-metal collision and contact, and may generate wear particles. Do not use metal stoppers and/or shock absorbers in an environment where wear particles are problem.
When the buffer mechanism or the end lock mechanism functional options are used, dust particles may be generated by the buffer part as well as the end lock part.
The following models of air gripper may generate dust particles, as metal-to-metal collisions occur when fingers are fully closed.

## - MHZ2

- MHZL2 (Except -X5955)

MHF2

- MHY2
. MHW2
- Static electricity

Refrain from using the electrical equipments including detection switches (e.g., pressure switches and flow switches) in electrostatically-charged environments. Otherwise, they may cause the system to fail or to malfunction.

- Piping

Usage of nylon tubing and polyurethane tubing in environments with a low dew point may affect dew points of ambient air and inside of piping. Use fluoropolymer tubing (TL series) or stainless steel tubing (Supply it on your own) in environments with a low dew point.

## Chemical environment

Refrain from using the products in such environments as exposed to chemicals. Otherwise, resin parts may deteriorate. If you want SMC to test the products for the effects of chemicals attached to them, send the products back to SMC after thoroughly cleaning them.
Consult your SMC sales representative for further details.

## UL Approved Product

## © Caution

When conformity to UL is required, the product should be used with a UL1310 Class 2 power supply.
The product is a UL approved product only if it has a c mark on the body.

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EtherNet $/ I^{\circledR}$ is a registered trademark of ODVA, Inc.
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## Series Compatible with Secondary Batteries




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[^0]:    * Cylinder mounting brackets made of steel are either electroless nickel plated, treated with RAYDENT®, or coated with electrodeposition paint.

[^1]:    *1 Standard products: For the standard model, copper ( Cu ) and zinc $(\mathrm{Zn})$ are not used as main components in the metal materials. Refer to the Web Catalog for details.

[^2]:    *1 Standard products: For the standard model, copper (Cu) and zinc $(\mathrm{Zn})$ are not used as main components in the metal materials. Refer to the Web Catalog for details.
    *2 Pressure gauge mounting: The G43-10-01-X300/G46-SRB pressure gauge cannot be mounted directly to the booster regulator as it will interfere with the booster regulator (25A-VBA10A) handle or the other pressure gauge (for the 25A-VBA20A/40A). In order to mount the pressure gauge, piping which does not cause any interference must be prepared separately. $* 3$ Aside from the external parts and wetted parts, copper $(\mathrm{Cu})$ and zinc $(\mathrm{Zn})$ are used as main components in the metal materials.

[^3]:    For details on the EX260 Integrated Type (For Output) Serial Transmission System, refer to the Web Catalog and the Operation Manual. For the part numbers of the SI units to be mounted, refer to the Web Catalog. Please download the Operation Manual via the SMC website: https://www.smcworld.com

[^4]:    For details on the EX120 Integrated Type (For Output) Serial Transmission System, refer to the Web Catalog and the Operation Manual. For the part numbers of the SI units to be mounted, refer to the Web Catalog. Please download the Operation Manual via the SMC website: https://www.smcworld.com

[^5]:    * Refer to page 25 for clamp bracket part numbers.

[^6]:    For details on the EX260 Integrated Type (For Output) Serial Transmission System, refer to the Web Catalog and the Operation Manual. For the part numbers of the SI units to be mounted, refer to page 53 in this catalog. Please download the Operation Manual via the SMC website: https://www.smcworld.com

[^7]:    For details on the EX260 Integrated Type (For Output) Serial Transmission System, refer to the Web Catalog and the Operation Manual. For the part numbers of the SI units to be mounted, refer to page 53 in this catalog. Please download the Operation Manual via the SMC website: https://www.smcworld.com

[^8]:    * The part number is not indicated on the product.

[^9]:    * Since V111 and V115 are CE/UKCA-compliant as standard, the suffix "-Q" is not necessary.

[^10]:    * The 25A- series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catalog.

[^11]:    * The 25A- series specifications and dimensions are the same as those of the standard model.

[^12]:    Caution
    Use standard (DC) specification for continuous duty.

[^13]:    * Specify the part numbers for valves and options together beneath the manifold base part number.
    <Example>

[^14]:    OSHA standard (Occupational Safety and Health Administration Department of Labor)
    For safety control, OSHA rule requires energy sources for
    certain equipment be turned off or disconnected and that
    the device either be locked or labelled with a warning tag.

[^15]:    *1 Bracket/1 pc., Mounting screw/2 pcs.

[^16]:    *1 Bracket/1 pc., Mounting screw/2 pcs.

[^17]:    *1 Order two foot brackets per cylinder.

[^18]:    *1 When axial foot brackets are used, two pieces should be ordered for each cylinder.

    * Accessories for each mounting bracket are as follows.

    Axial foot, Flange, Single clevis: Hexagon nut, Spring washer
    Double clevis: Hexagon nut, Spring washer, Pin, Flat washers and Split pins
    Double knuckle joint: Pin, Flat washers and Split pins
    Clevis pin, Knuckle pin: Flat washers and Split pins

[^19]:    *1 Order two foot brackets per cylinder.

[^20]:    * The 25A- series specifications and dimensions are the same as those of the standard model.

[^21]:    *1 When ordering foot and compact foot brackets, order 2 pieces per cylinder.

    * Parts included with each type of bracket are as follows.

    Foot, Compact foot, Flange: Body mounting bolts
    Double clevis type: Clevis pin, Type C retaining ring for axis, Body mounting bolt

[^22]:    *1 Order 2 pieces per cylinder.

    * Parts included with each type of bracket are as follows.

    Foot, Compact foot, Flange: Body mounting bolts, Double clevis: Clevis pin, Type C retaining rings for axis, Body mounting bolts

[^23]:    *1 Order 2 pieces per cylinder.

    * Parts included with each type of bracket are as follows: Foot, Compact foot, Flange: Body mounting bolts, Double clevis: Clevis pin, Type C retaining rings for axis, Body mounting bolts

[^24]:    * Spacers are used to fix the stroke adjustment unit at an intermediate stroke position.
    * The 25A-MY1B50 and 63 are not available with the stroke adjustment unit.

[^25]:    * Spacers are used to fix the stroke adjustment unit at an intermediate stroke position.
    * Stroke adjustment unit H is not available for 25A-MY1C16.

[^26]:    * Spacers are used to fix the stroke adjustment unit at an intermediate stroke position.

    H: With high load shock absorber + Adjustment bolt is not available for 25A-MY1H16.

[^27]:    * Spacers are used to fix the stroke adjustment unit at an intermediate stroke position.

[^28]:    * Spacers are used to fix the stroke adjustment unit at an intermediate stroke position.

[^29]:    * Spacers are used to fix the stroke adjustment unit at an intermediate stroke position.

[^30]:    * The longer the stroke, the larger the amount of deflection in a cylinder tube. Pay attention to the mounting bracket and clearance value
    * Intermediate stroke is available in 1 mm increments.

[^31]:    * The 25A- series specifications and dimensions are the same as those of the standard model.

[^32]:    * When the shock absorber, metal stopper with bumper, or adjuster option with metal stopper is used, metal-to-metal collisions occur, and may generate dust particles.
    When the buffer mechanism or the end lock mechanism functional options are used, dust particles may be generated by the buffer part as well as the end lock part.

[^33]:    * When the shock absorber, metal stopper with bumper, or adjuster option with metal stopper is used, metal-to-metal collisions occur, and may generate dust particles. * The 25A-series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catalog.

[^34]:    * When the shock absorber, metal stopper with bumper, or adjuster option with metal stopper is used, metal-to-metal collisions occur, and may generate dust particles.
    When the buffer mechanism or the end lock mechanism functional options are used, dust particles may be generated by the buffer part as well as the end lock part.

[^35]:    * When the shock absorber, metal stopper with bumper, or adjuster option with metal stopper is used, metal-to-metal collisions occur, and may generate dust particles.
    *When the buffer mechanism or the end lock mechanism functional options are used, dust particles may be generated by the buffer part as well as the end lock part.

[^36]:    * The 25A- series specifications and dimensions

[^37]:    * The 25A- series specifications and dimensions

[^38]:    * The 25A- series specifications and dimensions are the same as those of the standard model.

[^39]:    *1 Foot bracket part number contains two foot brackets
    *2 The single clevis is only applicable to bore sizes ø20 and ø25.

    * Mounting bolts are also included with bracket.

[^40]:    Material: Special steel
    Treatment: Electroless nickel plating

[^41]:    * The 25A- series specifications and dimensions

[^42]:    * The 25A- series specifications and dimensions are the same as those of the standard model.

[^43]:    *3 When more than one option is selected, list the option symbols in alphabetical order. (Example -BJ) *4 Use a One-touch fitting or barb fitting for piping. (O.D.: Within ø6.2)

[^44]:    *3 When more than one option is selected, list the option symbols in alphabetical order. (Example -BW)

[^45]:    * The 25A- series specifications and dimensions are the same as those of the standard model.

[^46]:    *1 When ZK2-BG5-2-A is mounted, the workpiece cannot be removed until vacuum is released

[^47]:    - Cannot be used for vacuum retention
    - Use a release valve. Without a release valve, a workpiece may not be released.

[^48]:    2 With a (female) vacuum inlet

[^49]:    *1 Use the connection thread.

[^50]:    *1 Use the connection thread.

[^51]:    *1 Use the connection thread

[^52]:    *1 The assembly consists of a bracket $A / B$ and 2 mounting screws.

[^53]:    *3 The assembly consists of a bracket and 2 mounting screws.

[^54]:    *3 The assembly consists of a bracket and 2 mounting screws.

[^55]:    *2 The assembly consists of a bracket and 2 mounting screws.

[^56]:    *1 The assembly consists of an $A$ and $B$ bracket and 2 mounting screws.

[^57]:    *1 The assembly consists of a bracket and 2 mounting screws.

[^58]:    *1 The assembly consists of an $A$ and $B$ bracket and 2 mounting screws.

[^59]:    *1 The assembly consists of a bracket and set nuts.

[^60]:    * The 25A- series specifications and dimensions are the same as those of the standard model.

[^61]:    *1 The assembly consists of a bracket and set nuts.

[^62]:    * Since the lead wires and electrical circuits are used, this product is not completely copper-free. Only the wetted parts are copper-free.
    * Copper and zinc materials are used for solenoid valve coils, connector pins, and lead wire substrate.

[^63]:    * The 25 A- series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catalog.

[^64]:    *1 For selecting applicable tubing O.D., refer to the "Model" on the Web Catalog. *2 Use ø1/8" tubing.

[^65]:    * The 25A- series specifications are the same as those of the standard model.

    The $G$ thread dimensions vary from those of the standard product. Refer to page 258-2 for details.

[^66]:    * Options are shipped together with the product but do not come assembled.

[^67]:    * The 25A- series specifications and dimensions are the same as those of the standard model.

[^68]:    * The 25A- series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catalog.

[^69]:    * The 25A- series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catalog.

[^70]:    The 25A- series specifications and dimensions are the same as those of the standard model.

[^71]:    *1 For units with flow adjustment valve, 2 brackets are required.

[^72]:    *1 For units with flow adjustment valve, 2 brackets are required.

[^73]:    * The 25A- series specifications and dimensions are the same as those of the standard model.

[^74]:    * The 25A-series specifications and dimensions are the same as those of the standard model.

[^75]:    * The 25A- series specifications and dimensions are the same as those of the standard model.

[^76]:    * The 25A- series specifications and dimensions are the same as those of the standard model.

[^77]:    * Specifications and dimensions are the same as those of the standard model.

[^78]:    Solid state auto switches should be ordered separately.
    Click here for auto switch details.

[^79]:    * The auto switch magnet contains copper and/or zinc.
    * The 25A-series specifications and dimensions are the same as those of the standard model.

[^80]:    * Copper and zinc materials are used for the motors, cables, controllers/drivers, and auto switch magnets.

[^81]:    * Please contact SMC for non-standard strokes as they are produced as special orders.

[^82]:    * Please contact SMC for non-standard strokes as they are produced as special orders.

[^83]:    Copper and zinc materials are used for the motors, cables, controllers/drivers.

    * The 25A- series specifications and dimensions are the same as those of the standard model.

[^84]:    *1 Lead wire for a solid state auto switch with "-901" at the end of part number has been changed to a cable for a robot use.

[^85]:    - Individual auto switch: D-M9BWL-900
    (Place the order with the part number for auto switch shown in the table above.)
    * Lead wire length symbols: $0.5 \mathrm{~m} . . . . . . . . .$. Nil (Example) M9NW

    | $1 \mathrm{~m} . \ldots \ldots \ldots . . . . . \mathrm{M}$ | (Example) M9NWM |
    | :--- | :--- |
    | $3 \mathrm{~m} \ldots \ldots \ldots \ldots . \mathrm{L}$ | (Example) M9NWL |
    | $5 \mathrm{~m} \ldots \ldots \ldots \ldots . \mathrm{Z}$ | (Example) M9NWZ |

