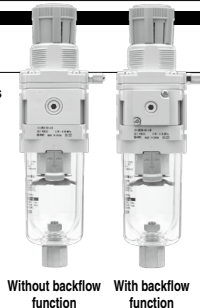
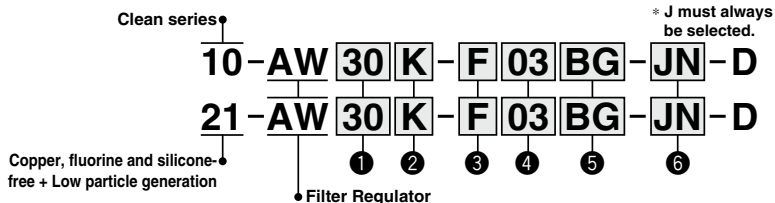


# 10-21-AW-D series Filter Regulator

# 10-21-AW□K-D series Filter Regulator with Backflow Function

## How to Order



· Option/Semi-standard: Select one each for a to g.  
 · Option symbol: When more than one specification is required, indicate in alphabetical order.  
 · Semi-standard symbol: When more than one specification is required, indicate in alphanumeric order.  
 Example) 10-AW30K-F03BG-2JNR-D

	Symbol	Description	① Body size					
			20	30	40	60		
② With backflow function	Nil	Without backflow function	●	●	●	●		
	K <sup>(Note 1)</sup>	With backflow function	●	●	●	●		
③ Pipe thread type	+	Rc	●	●	●	●		
	N	NPT	●	●	●	●		
	F	G	●	●	●	●		
④ Port size	+	01	●	—	—	—		
	02	1/4	●	●	—	—		
	03	3/8	—	●	●	—		
	04	1/2	—	—	●	—		
	06	3/4	—	—	●	●		
10	1	—	—	—	●			
⑤ Option <sup>(Note 2)</sup>	a Mounting	Nil	Without mounting option	●	●	●	●	
		B <sup>(Note 3)</sup>	With bracket	●	●	●	—	
	b Pressure gauge <sup>(Note 4)</sup>	+	H	With set nut (for panel mount)	●	●	●	—
		Nil	Without pressure gauge	●	●	●	●	
G	Round type pressure gauge (without limit indicator)	●	●	●	●			

Directional Control Valves

Air Cylinders

Rotary Actuators

Air Grippers

Air Preparation Equipment

Modular F. R.

Pressure Control Equipment

Fittings & Tubing

Flow Control Equipment

Pressure Switches/ Pressure Sensors

# Filter Regulator 10-21-AW-D

## Filter Regulator with Backflow Function 10-21-AW□K-D

	Symbol	Description	①					
			Body size					
			20	30	40	60		
⑥ Semi-standard	c	+	●	●	●	●		
		Set pressure <sup>Note 5)</sup>	Nil	0.05 to 0.85 MPa setting	●	●	●	●
	d	Bowl	+	●	●	●	●	
			Nil	Polycarbonate bowl	●	●	●	●
			2	Metal bowl	●	●	●	●
			6	Nylon bowl	●	●	●	●
			8	Metal bowl with level gauge	—	●	●	●
			C	With bowl guard	●	— <sup>Note 6)</sup>	— <sup>Note 6)</sup>	— <sup>Note 6)</sup>
	6C	With bowl guard (Nylon bowl)	●	— <sup>Note 7)</sup>	— <sup>Note 7)</sup>	— <sup>Note 7)</sup>		
	e	Exhaust mechanism	+	●	—	—	—	
Nil			Relieving type	●	●	●	●	
f	Flow direction	N	●	●	●	●		
		R	Flow direction: Left to right	●	●	●	●	
g	Pressure unit	+	●	●	●	●		
		Nil	Unit on product label: MPa, °C, Pressure gauge in SI units: MPa	○ <sup>Note 10)</sup>	○ <sup>Note 10)</sup>	○ <sup>Note 10)</sup>	○ <sup>Note 10)</sup>	
		Z <sup>Note 9)</sup>	Unit on product label: psi, °F, Pressure gauge: MPa/psi dual scale	○ <sup>Note 10)</sup>	○ <sup>Note 10)</sup>	○ <sup>Note 10)</sup>	○ <sup>Note 10)</sup>	

- Note 1) Set the inlet pressure to at least 0.05 MPa higher than the set pressure.  
 Note 2) Options B, G, and H are not assembled and supplied loose at the time of shipment.  
 Note 3) The assembly consists of a bracket and set nuts (applicable to the 10-/21-AW20(K)-D to 10-/21-AW40(K)-D).  
 For the 10-/21-AW60(K)-D, the assembly consists of 2 types of the bracket and 2 mounting screws.  
 Note 4) When the pressure gauge is attached, a 1.0 MPa pressure gauge will be fitted for standard (0.85 MPa) type. 0.4 MPa pressure gauge for 0.2 MPa type.  
 Note 5) Pressure can be set higher than the specification pressure in some cases, but use pressure within the specification range.  
 Note 6) A bowl guard is provided as standard equipment (polycarbonate).  
 Note 7) A bowl guard is provided as standard equipment (nylon).  
 Note 8) Be sure to select drain guide "J." Without a valve function. The mounting screws are the same as the thread of ③.  
 Note 9) 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.)  
 Note 10) ○: For the pipe thread type: NPT only

## Standard Specifications

Model	10-/21-AW20(K)-D	10-/21-AW30(K)-D	10-/21-AW40(K)-D	10-/21-AW40(K)-06-D	10-/21-AW60(K)-D
Port size	1/8, 1/4	1/4, 3/8	1/4, 3/8, 1/2	3/4	3/4, 1
Pressure gauge port size	1/8				
Fluid	Air				
Ambient and fluid temperatures	-5 to 60°C (No freezing)				
Proof pressure	1.5 MPa				
Max. operating pressure	1.0 MPa				
Set pressure range	0.05 to 0.85 MPa				
Nominal filtration rating <sup>Note 1)</sup>	5 μm				
Compressed air purity class <sup>Note 2) Note 3)</sup>	ISO8573-1: 2010 [6 : 4 : 4]				
Drain capacity	8 cm <sup>3</sup>	25 cm <sup>3</sup>			45 cm <sup>3</sup>
Drain guide port size	1/8				1/4
Construction	Relieving type				
Grease	10-: Fluorine grease 21-: Lithium soap based grease				
Cleanliness class (ISO class)	10-: Class 3 21-: Class 3				

- Note 1) For the following conditions in accordance with [Test condition: ISO 8573-4:2001 compliant, Test method ISO 12500-3:2009 compliant]  
 Conditions: When a new element is used, and the flow capacity, inlet pressure, and the amount of solid bodies on the filter inlet side are stable  
 Note 2) The compressed air purity class is indicated based on ISO 8573-1:2010  
 Compressed air – Part 1: Contaminants and purity classes. For details on this standard, refer to page 1068-22.  
 Note 3) The compressed air quality class on the inlet side is [ 7 : 4 : 4 ].

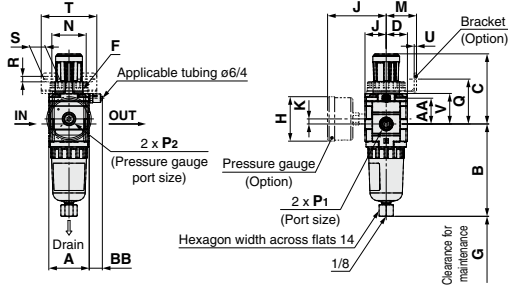
## Option/Part Nos.

Option	Specifications	Part no.				
		10-/21-AW20(K)-D	10-/21-AW30(K)-D	10-/21-AW40(K)-D	10-/21-AW40(K)-06-D	10-/21-AW60(K)-D
Bracket assembly <sup>Note 1)</sup>	10-	10-AW23P-270AS	10-AR33P-270AS	10-AR43P-270AS		10-AR54P-270AS
	21-	AW23P-270AS	AR33P-270AS	AR43P-270AS		AR54P-270AS
Set nut	10-	10-AR23P-260S	10-AR33P-260S	10-AR43P-260S		— <sup>Note 2)</sup>
	21-	AR23P-260S	AR33P-260S	AR43P-260S		— <sup>Note 2)</sup>
Pressure gauge <sup>Note 3)</sup> (Standard)	10-	G49-10-□01				
	21-	G49-10-□01MS-X3				
Pressure gauge <sup>Note 3)</sup> (0.2 MPa setting)	10-	G49-4-□01				
	21-	G49-4-□01MS-X3				

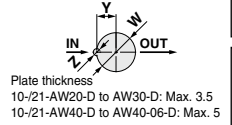
- Note 1) The assembly consists of a bracket and set nuts. The 10-/21-AW60(K)-D comes with an A and B bracket as well as mounting screws (2 pcs.).  
 Note 2) Please contact SMC regarding the set nuts for the 10-/21-AW60(K)-D.  
 Note 3) □ in part numbers for a pressure gauge indicates a pipe thread type. No indication is necessary for R; however, indicate N for NPT.  
 Please contact SMC regarding the connection thread NPT and pressure gauge supply for psi unit specifications.

**Dimensions**

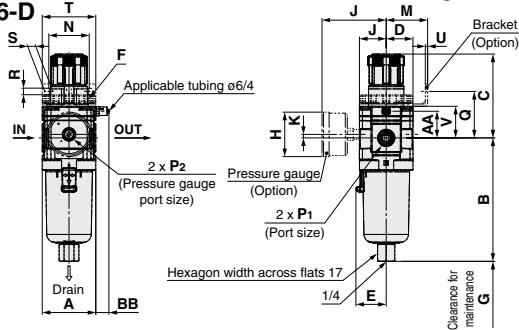
**10-21-AW20-D**



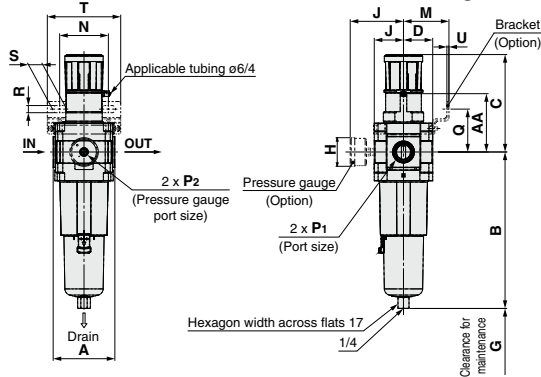
**Panel cutout dimensions**



**10-21-AW30-D to AW40-06-D**



**10-21-AW60-D**



Applicable model	10-21-AW20-D		10-21-AW30-D to AW60-D		
Semi-standard	With bowl guard	Metal bowl	Metal bowl	Metal bowl	Metal bowl with level gauge
Dimensions					

Model	Standard specifications												
	P <sub>1</sub>	P <sub>2</sub>	A	B	C	D	E	F	G	J	K	AA	BB
10-21-AW20-D	1/8, 1/4	1/8	40	91.4	71.8	21	—	M28 x 1	40	21	5	25.5	13
10-21-AW30-D	1/4, 3/8	1/8, 5/8	122.2	86.5	26.5	30	M38 x 1.5	55	26.5	3.5	26.4	13	—
10-21-AW40-D	1/4, 3/8, 1/2	1/8, 7/8	153.9	91.5	35.5	38.4	M42 x 1.5	80	35.5	—	30.5	13	—
10-21-AW40-06-D	3/4	1/8, 7/5	155.9	93	35.5	38.4	M42 x 1.5	80	35.5	—	32	10.5	—
10-21-AW60-D	3/4, 1	1/8, 95	240.9	155	45	—	—	—	30	45	—	89.8	—

Model	Optional specifications													Semi-standard specifications					
	Round type pressure gauge		Bracket mount											With bowl guard		Metal bowl	Metal bowl with level gauge		
	H	J	H	J	M	N	Q	R	S	T	U	V	W	Y	Z	B	B	B	
10-21-AW20-D	ø44	58	ø44	61	30	34	44.4	5.4	15.4	55	2.3	30.2	28.5	14	6	91.4	—	93.9	—
10-21-AW30-D	ø44	63.5	ø44	66.5	41	40	46	6.5	8	53	2.3	31.3	38.5	19	7	—	122.3	—	142.3
10-21-AW40-D	ø44	72.5	ø44	75.5	50	54	54	8.5	10.5	70	2.3	35.5	42.5	21	7	—	154.1	—	174.1
10-21-AW40-06-D	ø44	72.5	ø44	75.5	50	54	55.5	8.5	10.5	70	2.3	37	42.5	21	7	—	156.1	—	176.1
10-21-AW60-D	ø44	82	ø44	85	70	75	66	11	22	113	3.2	—	—	—	—	—	241.1	—	261.1

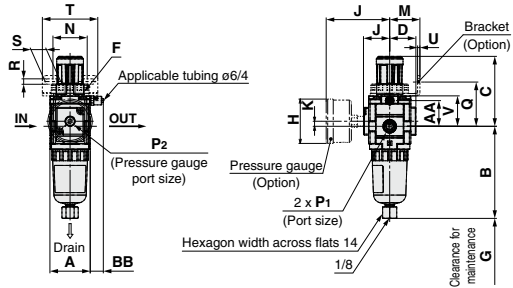
Note 1) The dimension of C is the length when the regulator knob is unlocked.

Directional Control Valves  
Air Cylinders  
Rotary Actuators  
Air Grippers  
Air Preparation Equipment  
Modular F. R.  
Pressure Control Equipment  
Fittings & Tubing  
Flow Control Equipment  
Pressure Switches/Pressure Sensors

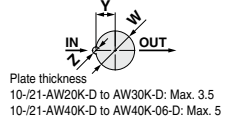
# Filter Regulator with Backflow Function 10-21-AW□K-D

## Dimensions

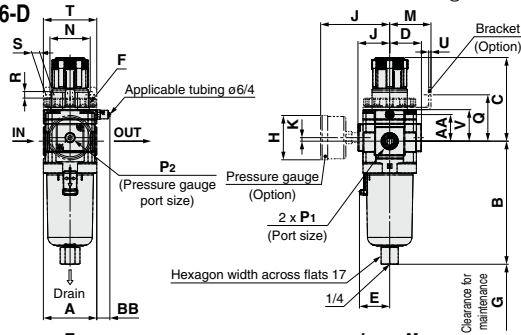
### 10-21-AW20K-D



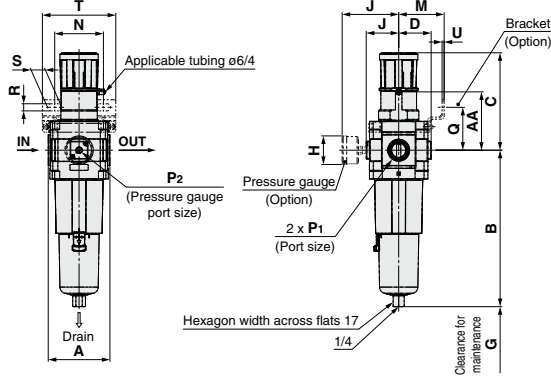
### Panel cutout dimensions



### 10-21-AW30K-D to AW40K-06-D



### 10-21-AW60K-D



Applicable model	10-21-AW20K-D		10-21-AW30K-D to AW60K-D		
Semi-standard	With bowl guard	Metal bowl	Metal bowl	Metal bowl	Metal bowl with level gauge
Dimensions					

Model	Standard specifications												
	P <sub>1</sub>	P <sub>2</sub>	A	B	D	E	F	G	J	K	AA	BB	
10-21-AW20K-D	1/8, 1/4	1/8	40	91.4	71.8	26	—	M28 x 1	40	26	5	25.5	13
10-21-AW30K-D	1/4, 3/8	1/8	53	122.2	86.5	31.5	30	M38 x 1.5	55	31.5	3.5	26.4	13
10-21-AW40K-D	1/4, 3/8, 1/2	1/8	70	153.9	91.5	40.5	38.4	M42 x 1.5	80	40.5	—	30.5	13
10-21-AW40K-06-D	3/4	1/8	75	155.9	93	40.5	38.4	M42 x 1.5	80	40.5	—	32	10.5
10-21-AW60K-D	3/4, 1	1/8	95	240.9	155	50	—	—	—	30	50	—	89.8

Model	Optional specifications													Semi-standard specifications					
	Round type pressure gauge		Bracket mount											Panel mount			With bowl guard	Metal bowl	Metal bowl with level gauge
	H	J	H	J	M	N	Q	R	S	T	U	V	W	Y	Z	B	B	B	
10-21-AW20K-D	ø44	63	ø44	66	30	34	44.4	5.4	15.4	55	2.3	30.2	28.5	14	6	91.4	—	93.9	—
10-21-AW30K-D	ø44	68.5	ø44	71.5	41	40	46	6.5	8	53	2.3	31.3	38.5	19	7	—	122.3	—	142.3
10-21-AW40K-D	ø44	77.5	ø44	80.5	50	54	54	8.5	10.5	70	2.3	35.5	42.5	21	7	—	154.1	—	174.1
10-21-AW40K-06-D	ø44	77.5	ø44	80.5	50	54	55.5	8.5	10.5	70	2.3	37	42.5	21	7	—	156.1	—	176.1
10-21-AW60K-D	ø44	87	ø44	90	70	75	66	11	22	113	3.2	—	—	—	—	—	241.1	—	261.1

Note 1) The dimension of C is the length when the regulator knob is unlocked.