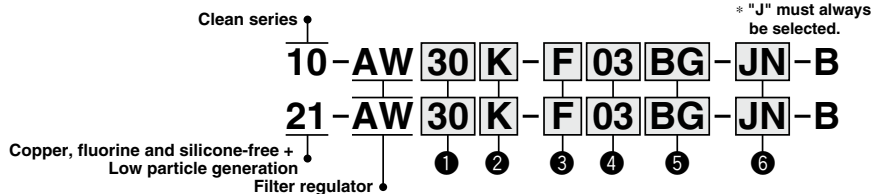


# Series 10-21-AW-B Filter Regulator

# Series 10-21-AW   K-B Filter Regulator with Backflow Function

## How to Order



- Option/Semi-standard: Select one each for a to g.
- Option/Semi-standard symbol: When more than one specification is required, indicate in alphanumeric order.

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

	Symbol	Description	①						
			Body size						
			20	30	40	60			
6 Semi-standard	c	Set pressure	+	Nil	0.05 to 0.85 MPa setting	●	●	●	●
			1	Note 6)	0.02 to 0.2 MPa setting	●	●	●	●
	d	Bowl	+	Nil	Polycarbonate bowl	●	●	●	●
			2		Metal bowl	●	●	●	●
			6		Nylon bowl	●	●	●	●
			8		Metal bowl with level gauge	—	—	—	—
			C		With bowl guard	●	—	—	—
			6C		Nylon bowl with bowl guard	●	—	—	—
	e	Exhaust mechanism	+	Nil	Relieving type	●	●	●	●
			N		Non-relieving type	●	●	●	●
	f	Flow direction	+	Nil	Flow direction: Left to right	●	●	●	●
			R		Flow direction: Right to left	●	●	●	●
	g	Pressure unit	+	Nil	Name plate, caution plate for bowl, and pressure gauge in imperial units: MPa	●	●	●	●
			Z	Note 6)	Name plate: psi. Caution plate for bowl: psi, "F". Pressure gauge: Both MPa and psi	○ Note 9)	○ Note 9)	○ Note 9)	○ Note 9)

Note 1) When using a non-relieving type with a backflow function, if the inlet pressure is increased slowly, the inlet pressure may continue to the outlet side.  
 Note 2) Drain guide is NPT 1/8 (applicable to the 10-21-AW20(K)-B) and NPT 1/4 (applicable to the 10-21-AW30(K)-B to AW60(K)-B).  
 Note 3) Drain guide is G 1/8 (applicable to the 10-21-AW20(K)-B) and G 1/4 (applicable to the 10-21-AW30(K)-B to AW60(K)-B).  
 Note 4) Option B, G, H are not assembled and supplied loose at the time of shipment.  
 Note 5) Assembly of a bracket and set nuts (10-21-AW20(K)-B to AW40(K)-B) including 2 mounting screws for the 10-21-AW60(K)-B.  
 Note 6) The only difference from the standard specifications is the adjusting spring for the regulator. It does not restrict the setting of 0.2 MPa or more. When the pressure gauge is attached, a 0.4 MPa pressure gauge will be fitted.  
 Note 7) Be sure to select "J" drain guide. Without a valve function.  
 Note 8) For thread type: NPT. This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.)  
 Note 9) ○: For thread type: NPT only

### Standard Specifications

Model	10-21-AW20(K)-B	10-21-AW30(K)-B	10-21-AW40(K)-B	10-21-AW40(K)-06-B	10-21-AW60(K)-B
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 temperature	-5 to 60°C (with no freezing)				
Proof pressure	1.5 MPa				
Maximum operating pressure	1.0 MPa				
Set pressure range	0.05 to 0.85 MPa				
Nominal filtration rating	5 μm				
Drain capacity (cm <sup>3</sup> )	8	25	45	45	45
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				

### Options/Part No.

Model	10-21-AW20(K)-B	10-21-AW30(K)-B	10-21-AW40(K)-B	10-21-AW40(K)-06-B	10-21-AW60(K)-B
Option					
Bracket assembly <sup>Note 1)</sup>	AW23P-270AS	AR33P-270AS	AR43P-270AS		AW62P-270AS
Set nut	AR23P-260S	AR33P-260S	AR43P-260S		— <sup>Note 2)</sup>
Pressure gauge <sup>Note 4)</sup> Round <sup>Note 3)</sup> type <sup>Note 3)</sup>	Standard				
	10: G49-10□□1, 21: G49-10□□1-MS-X3 10: G49-4□□1, 21: G49-4□□1-MS-X3				

Note 1) Assembly of a bracket and set nuts. Including 2 mounting screws for the AW60(K)-B  
 Note 2) Please consult with SMC regarding the set nuts for the AW60(K)-B.  
 Note 3) □ in part numbers for a round pressure gauge indicates a pipe thread type. No indication is necessary for R; however, indicate N for NPT. Please contact SMC regarding the pressure gauge supply for both MPa and psi unit specifications.  
 Note 4) □ in part numbers for a round pressure gauge indicates a type of connection thread. 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.

Directional Control Valves

Air Cylinders

Rotary Actuators

Air Grippers

Air Preparation Equipment

Modular F. R.

Pressure Control Equipment

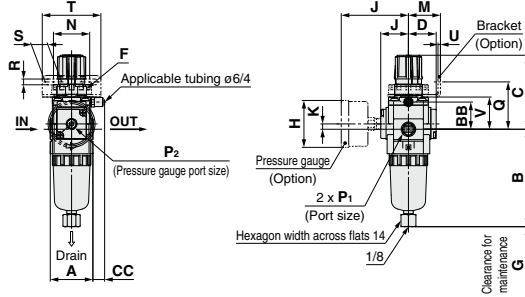
Fittings & Tubing

Flow Control Equipment

Pressure Switches/Pressure Sensors

**Dimensions**

**10-21-AW20-B**



**Panel fitting dimension**

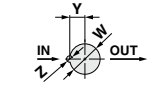
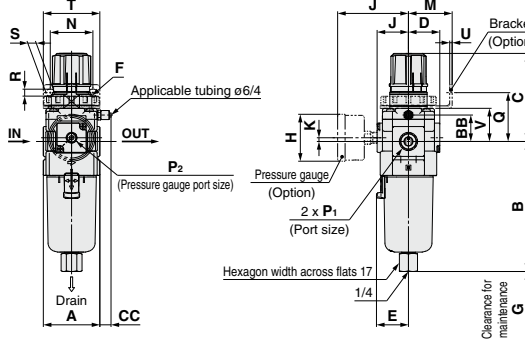


Plate thickness  
10-/21-AW20-B: Max. 3.5

**10-21-AW30-B to 40-06-B**



**Panel fitting dimension**

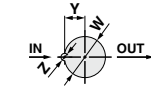
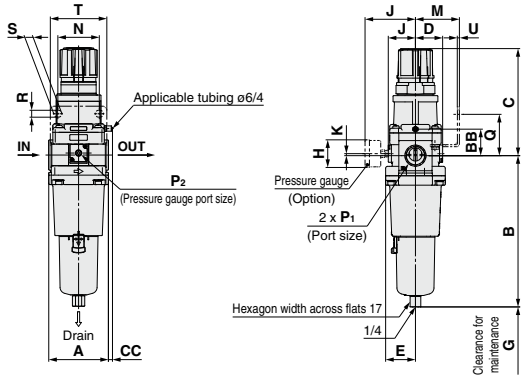


Plate thickness  
10-/21-AW30-B: Max. 3.5  
10-/21-AW40-B: Max. 5

**10-21-AW60-B**



Applicable model	10-/21-AW20-B		10-/21-AW30-B to 60-B	
Semi-standard specifications	With bowl guard	Metal bowl	Metal bowl	Metal bowl with level gauge
Dimensions				

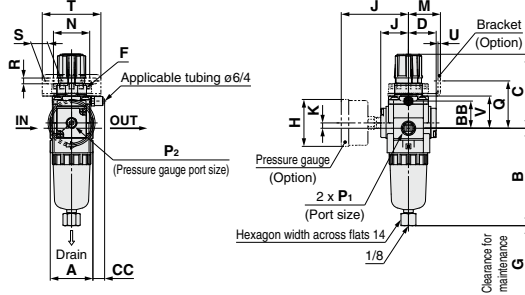
Model	Semi-standard specifications		
	With bowl guard	Metal bowl	Metal bowl with level gauge
	B	B	B
10-/21-AW20-B	91.4	93.9	—
10-/21-AW30-B	—	122.1	142.1
10-/21-AW40-B	—	154.1	174.1
10-/21-AW40-06-B	—	156.1	176.1
10-/21-AW60-B	—	241.1	261.1

Model	Standard specifications													Optional specifications											
	P <sub>1</sub>	P <sub>2</sub>	A	B	C (Note)	D	E	F	J	K	BB	CC	H	J	M	N	Q	R	S	T	U	V	W	Y	Z
10-/21-AW20-B	1/8, 1/4	1/8	40	91.4	72.4	26	—	M28 x 1	26	5	25.5	11	ø44	63	30	34	43.9	5.4	15.4	55	2.3	30.2	28.5	14	6
10-/21-AW30-B	1/4, 3/8	1/8	53	121.9	85.6	29.4	30	M38 x 1.5	29.4	3.5	24.8	10.5	ø44	66.4	41	40	45.8	6.5	8	53	2.3	31.1	38.5	19	7
10-/21-AW40-B	1/4, 3/8, 1/2	1/8	70	153.9	91.7	37.3	38.4	M42 x 1.5	37.3	1.5	28.9	10.5	ø44	74.3	50	54	54	8.5	10.5	70	2.3	35.5	42.5	21	7
10-/21-AW40-06-B	3/4	1/8	75	155.9	93.2	37.3	38.4	M42 x 1.5	37.3	1.2	30.4	8	ø44	74.3	50	54	55.5	8.5	10.5	70	2.3	37	42.5	21	7
10-/21-AW60-B	3/4, 1	1/8	95	242.6	175.5	43.3	47.5	—	43.3	3.2	42.2	6.5	ø44	80.3	70	66	65.8	11	13	90	3.2	—	—	—	—

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

**Dimensions**

**10-21-AW20K-B**



**Panel fitting dimension**

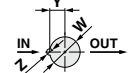
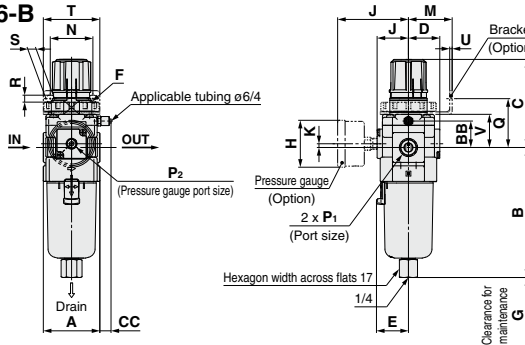


Plate thickness  
10-21-AW20K-B: Max. 3.5

**10-21-AW30K-B to 40K-06-B**



**Panel fitting dimension**

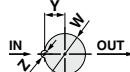
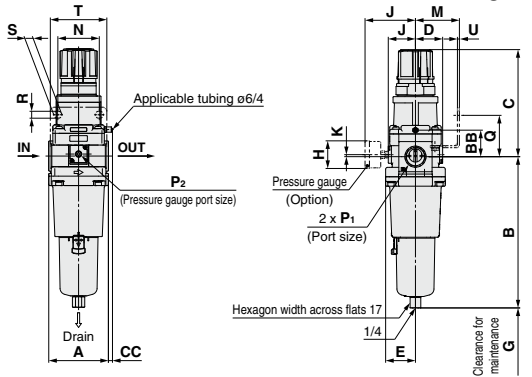


Plate thickness  
10-21-AW30K-B: Max. 3.5  
10-21-AW40K-B: Max. 5

**10-21-AW60K-B**



Applicable model	10-21-AW20K-B		10-21-AW30K-B to 60K-B		
Semi-standard specifications	With bowl guard	Metal bowl	Metal bowl	Metal bowl with level gauge	
Dimensions					

Model	Semi-standard specifications											
	With bowl guard			Metal bowl			Metal bowl with level gauge			B		
	B	B	B	B	B	B	B	B	B	B	B	
10-21-AW20K-B	91.4	93.9	—	—	—	—	—	—	—	—	—	
10-21-AW30K-B	—	—	122.1	—	—	—	—	—	—	—	—	
10-21-AW40K-B	—	—	—	154.1	—	—	—	—	—	—	—	
10-21-AW40K-06-B	—	—	—	—	156.1	—	—	—	—	—	—	
10-21-AW60K-B	—	—	—	—	—	241.1	—	—	—	—	—	

Model	Standard specifications												Optional specifications												
													Bracket mounting size						Panel mount						
	P <sub>1</sub>	P <sub>2</sub>	A	B	C (Note)	D	E	F	J	K	BB	CC	H	J	M	N	Q	R	S	T	U	V	W	Y	Z
10-21-AW20K-B	1/8, 1/4	1/8	40	91.4	72.4	26	—	M28 x 1	26	5	25.5	11	ø44	63	30	34	43.9	5.4	15.4	55	2.3	30.2	28.5	14	6
10-21-AW30K-B	1/4, 3/8	1/8	53	121.9	85.6	29.4	30	M38 x 1.5	29.4	3.5	24.8	10.5	ø44	66.4	41	40	45.8	6.5	8	53	2.3	31.1	38.5	19	7
10-21-AW40K-B	1/4, 3/8, 1/2	1/8	70	153.9	91.7	37.3	38.4	M42 x 1.5	37.3	1.5	28.9	10.5	ø44	74.3	50	54	54	8.5	10.5	70	2.3	35.5	42.5	21	7
10-21-AW40K-06-B	3/4	1/8	75	155.9	93.2	37.3	38.4	M42 x 1.5	37.3	1.2	30.4	8	ø44	74.3	50	54	55.5	8.5	10.5	70	2.3	37	42.5	21	7
10-21-AW60K-B	3/4, 1	1/8	95	242.6	175.5	43.3	47.5	—	43.3	3.2	42.2	6.5	ø44	80.3	70	66	65.8	11	13	90	3.2	—	—	—	—

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

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