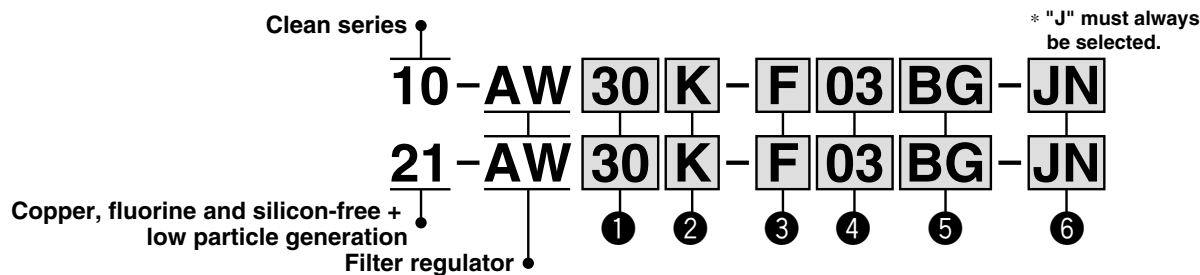


Series 10-21-AW Filter Regulator

Series 10-21-AW K 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 Note 1)	With backflow function	●	●	●	●
③	Thread type	+					
		Nil	Rc	●	●	●	●
		N Note 2)	NPT	●	●	●	●
		F Note 3)	G	●	●	●	●
④	Port size	+					
		01	1/8	●	—	—	—
		02	1/4	●	●	●	—
		03	3/8	—	●	●	—
		04	1/2	—	—	●	—
		06	3/4	—	—	●	●
⑤	a	+					
		Nil	Without mounting option	●	●	●	●
		B Note 5)	With bracket	●	●	●	●
		H	With set nut (for panel mounting)	●	●	●	—
	b	+					
		Nil	Without pressure gauge	●	●	●	●
		G	Round type pressure gauge (without limit indicator)	●	●	●	●

Filter Regulator 10-21-AW

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

		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	●	—	—	—
		+							
			Drain port Note 7)	J	Drain guide 1/8	●	—	—	—
					Drain guide 1/4	—	●	●	●
		+							
		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 8)	Name plate, caution plate for bowl, and pressure gauge in imperial units: 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)) and NPT 1/4 (applicable to the 10-/21-AW30(K) to AW60(K)).
- Note 3) Drain guide is G 1/8 (applicable to the 10-/21-AW20(K)) and G 1/4 (applicable to the 10-/21-AW30(K) to AW60(K)).
- 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) to AW40(K)) Including 2 mounting screws for the 10-/21-AW60(K)
- 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 0.2 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) The digital pressure switch will be equipped with the unit conversion function, setting to psi initially.
- Note 9) ○: For thread type: NPT only

Standard Specifications

Model	10-/21-AW20(K)	10-/21-AW30(K)	10-/21-AW40(K)	10-/21-AW40(K)-06	10-/21-AW60(K)
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		1/4		
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				
Relief pressure	Set pressure + 0.05 MPa [at relief flow rate of 0.1 L/min (ANR)]				
Nominal filtration rating	5 μm				
Drain capacity (cm³)	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				
Particle generation grade	10-: Grade 1				
(Refer to front matter pages 13 to 22 for details.)	21-: Grade 1				

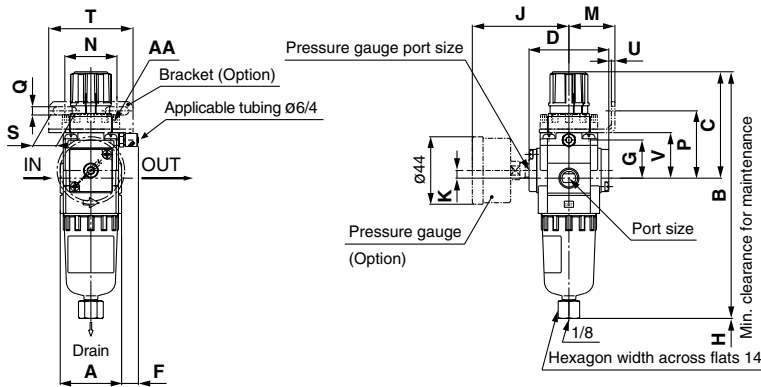
Options/Part No.

Option	Model	10-/21-AW20(K)	10-/21-AW30(K)	10-/21-AW40(K)	10-/21-AW40(K)-06	10-/21-AW60(K)
Bracket assembly	Note 1)	AW20P-270AS	AR30P-270AS	AR40P-270AS		AW60P-270AS
Set nut		AR20P-260S	AR30P-260S	AR40P-260S		— Note 3)
Pressure gauge	Note 4)	Standard		G49-10-□01		
		0.02 to 0.2 MPa setting		G49-2-□01		
				G49-10-□02		
				G49-2-□02		

- Note 1) Assembly of a bracket and set nuts
- Note 2) Assembly of a bracket and 2 mounting screws
- Note 3) Please consult SMC regarding the set nuts for the 10-/21-AW60(K).
- 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.

Dimensions

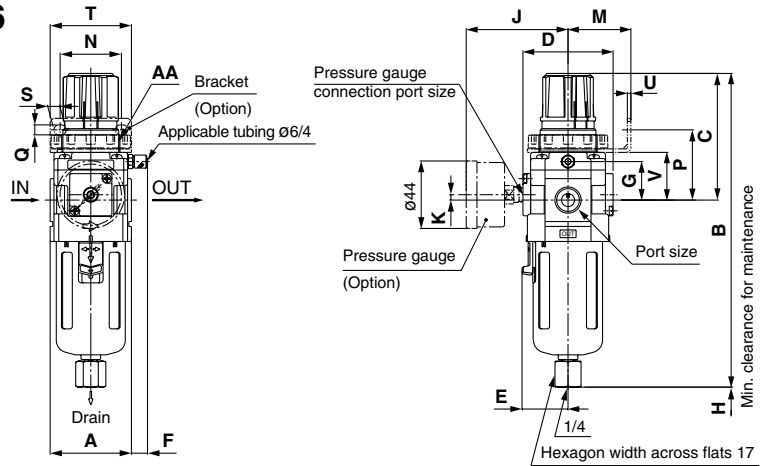
10-21-AW20



Panel fitting dimension


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

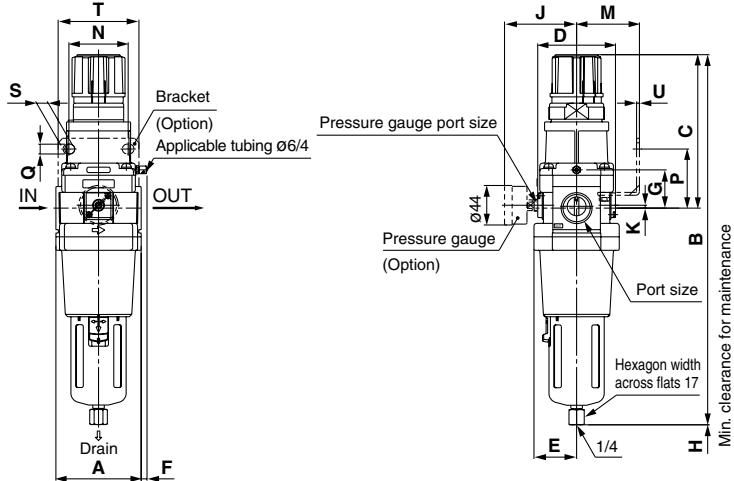
10-21-AW30 to 40-06

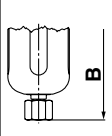
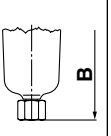
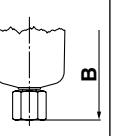
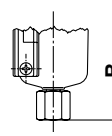


Panel fitting dimension


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

10-21-AW60



Applicable model	10-21-AW20		10-21-AW30 to 60	
Optional specifications	With bowl guard	Metal bowl	Metal bowl	Metal bowl with level gauge
Dimensions				

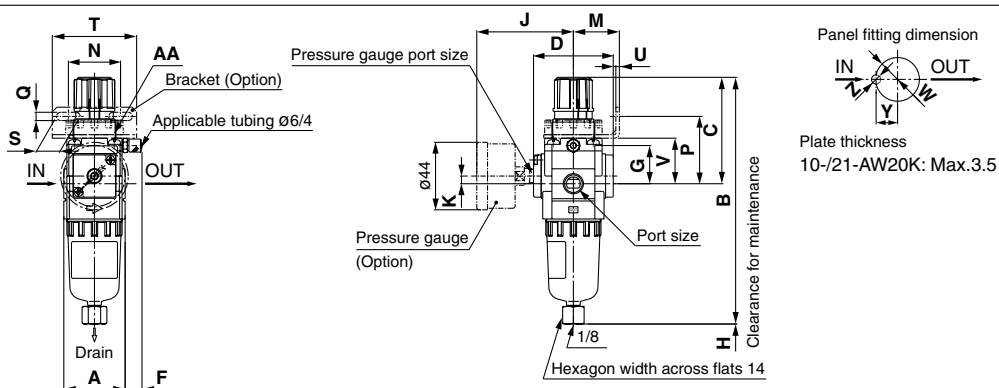
Model	Optional specifications		
	With bowl guard	Metal bowl	Metal bowl with level gauge
10-21-AW20	164	167	—
10-21-AW30	—	208	228
10-21-AW40	—	246	266
10-21-AW40-06	—	249	269
10-21-AW60	—	416	436

Model	Port size	Pressure gauge port size	Standard specifications								Accessory specifications													
											With pressure gauge		Bracket mounting size							Panel mount				
			A	B	C	D	E	F	G	H	J	K	M	N	P	Q	S	T	U	V	W	Y	Z	AA
10-21-AW20	1/8, 1/4	1/8	40	164	73	52	—	11	25	40	63	5	30	34	44	5.4	15.4	55	2.3	30	28.5	14	6	M28 x 1
10-21-AW30	1/4, 3/8	1/8	53	208	86	59	30	10.5	25	55	67	3.5	41	40	46	6.5	8	53	2.3	31	38.5	19	7	M38 x 1.5
10-21-AW40	1/4, 3/8, 1/2	1/4	70	246	92	75	38	10.5	29	80	75	1.5	50	54	54	8.5	10.5	70	2.3	35.5	42.5	21	7	M42 x 1.5
10-21-AW40-06	3/4	1/4	75	249	93	75	38	8	30.5	80	75	1.2	50	54	56	8.5	10.5	70	2.3	37	42.5	21	7	M42 x 1.5
10-21-AW60	3/4, 1	1/4	95	416	175	87	47.5	6.5	43	20	80.5	3.2	70	66	66	11	13	90	3.2	—	—	—	—	—

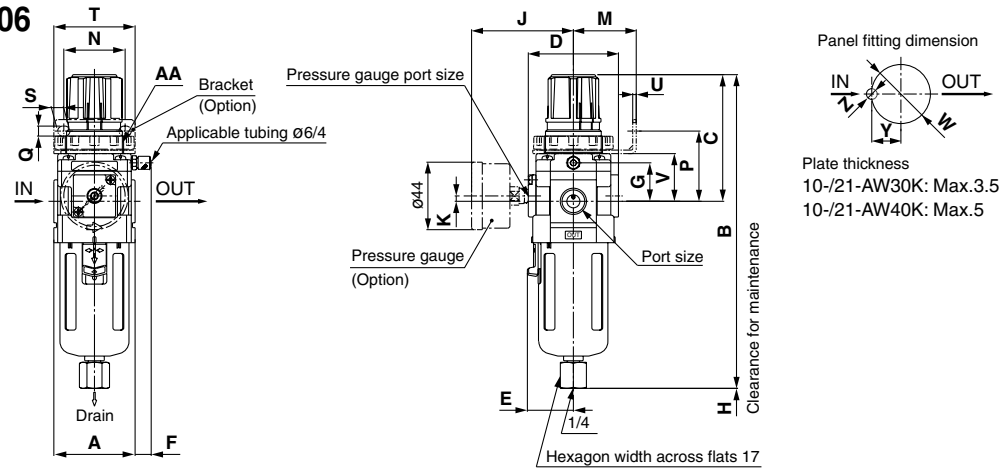
Filter regulator with back flow mechanism 10-21-AW□K

Dimensions

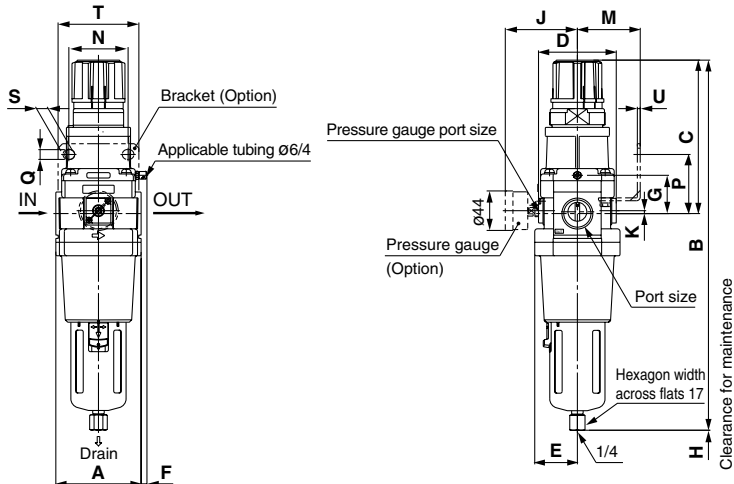
10-21-AW20K

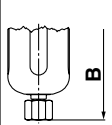
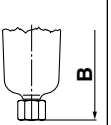
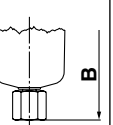
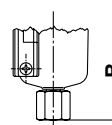


10-21-AW30K to 40K-06



10-21-AW60K



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

Model	Optional specifications		
	With bowl guard	Metal bowl	Metal bowl with level gauge
10-21-AW20K	164	167	—
10-21-AW30K	—	208	228
10-21-AW40K	—	246	266
10-21-AW40K-06	—	249	269
10-21-AW60K	—	416	436

Model	Port size	Pressure gauge port size	Standard specifications								Accessory specifications													
											With pressure gauge		Bracket mounting size							Panel mount				
			A	B	C	D	E	F	G	H	J	K	M	N	P	Q	S	T	U	V	W	Y	Z	AA
10-21-AW20K	1/8, 1/4	1/8	40	164	73	52	—	11	25	40	63	5	30	34	44	5.4	15.4	55	2.3	30	28.5	14	6	M28 x 1
10-21-AW30K	1/4, 3/8	1/8	53	208	86	59	30	10.5	25	55	67	3.5	41	40	46	6.5	8	53	2.3	31	38.5	19	7	M38 x 1.5
10-21-AW40K	1/4, 3/8, 1/2	1/4	70	246	92	75	38	10.5	29	80	75	1.5	50	54	54	8.5	10.5	70	2.3	35.5	42.5	21	7	M42 x 1.5
10-21-AW40K-06	3/4	1/4	75	249	93	75	38	8	30.5	80	75	1.2	50	54	56	8.5	10.5	70	2.3	37	42.5	21	7	M42 x 1.5
10-21-AW60K	3/4, 1	1/4	95	416	175	87	47.5	6.5	43	20	80.5	3.2	70	66	66	11	13	90	3.2	—	—	—	—	—

Clean gas filter

Pressure switch

Air preparation
equipment

Fittings & Tubing

**Filter, Pressure
control equipment**

Flow control
equipment

Directional control
valve

Air gripper

Rotary actuator

Air cylinder