





Modular Type Filter Regulators *Series AW*

Filter Regulator Series AW  Pages 366 through to 377	Model	Port size	Options
	AW10	M5 x 0.8	
	AW20	1/8, 1/4	
	AW30	1/4, 3/8	
	AW40	1/4, 3/8, 1/2	
	AW40-06	3/4	
	AW60	3/4, 1	
Filter Regulator with Backflow Function Series AW□K  Pages 366 through to 377	AW20K	1/8, 1/4	Bracket Float type auto drain Square embedded type pressure gauge (except the AW10) Round type pressure gauge Digital pressure switch (except the AW10) Panel mount
	AW30K	1/4, 3/8	
	AW40K	1/4, 3/8, 1/2	
	AW40K-06	3/4	
	AW60K	3/4, 1	
Mist Separator Regulator Series AWM  Pages 378 through to 387	AWM20	1/8, 1/4	
	AWM30	1/4, 3/8	
	AWM40	1/4, 3/8, 1/2	
Micro Mist Separator Regulator Series AWD  Pages 378 through to 387	AWD20	1/8, 1/4	
	AWD30	1/4, 3/8	
	AWD40	1/4, 3/8, 1/2	

AC

AF□

AR

AL

AW□

A□G

AV

AF800
AF900

Filter Regulator *Series AW10 to AW60*

Filter Regulator with Backflow Function *Series AW20K to AW60K*



AW20, AW20K AW40, AW40K

		Symbol	Description	1						
				Body size						
				10	20	30	40	60		
6	Semi-standard	f	Drain port ^{Note 10)}	Nil	With drain cock	●	●	●	●	●
				J ^{Note 11)}	Drain guide 1/8	—	●	—	—	—
					Drain guide 1/4	—	—	●	●	●
					W ^{Note 12)}	Drain cock with barb fitting: For ø6 x ø4 nylon tube	—	—	●	●
				+						
		g	Exhaust mechanism	Nil	Relieving type	●	●	●	●	●
				N	Non-relieving type	●	●	●	●	●
		+								
		h	Flow direction	Nil	Flow direction: Left to right	●	●	●	●	●
				R	Flow direction: Right to left	●	●	●	●	●
		+								
		i	Pressure unit	Nil	Name plate, caution plate for bowl, and pressure gauge in imperial units: MPa	●	●	●	●	●
				Z ^{Note 13)}	Name plate, caution plate for bowl, and pressure gauge in imperial units: psi, °F	○ ^{Note 15)}	○ ^{Note 15)}	○ ^{Note 15)}	○ ^{Note 15)}	○ ^{Note 15)}
				ZA ^{Note 14)}	Digital pressure switch: With unit conversion function	—	△ ^{Note 16)}	△ ^{Note 16)}	△ ^{Note 16)}	△ ^{Note 16)}

Note 1) The AW10 type comes with a backflow function as a standard feature. (K is not available.) When using the AW10 type as w/ backflow function, backflow may not occur with the set pressure 0.15 MPa or less. Please set the inlet pressure to at least 0.05 MPa higher than the set pressure.

Note 2) Drain guide is G 1/8 (applicable to the AW20(K)) and NPT 1/4 (applicable to the AW30(K) to AW60(K)). The auto drain port comes with ø3/8" one-touch fitting (applicable to the AW30(K) to AW60(K)).

Note 3) Drain guide is G 1/8 (applicable to the AW20(K)) and G 1/4 (applicable to the AW30(K) to AW60(K)).

Note 4) Option B, G, H, M are not assembled and supplied loose at the time of shipment.

Note 5) Assembly of a bracket and set nuts (AW10,

AW20(K) to AW40(K))

Note 6) Including 2 mounting screws for the AW60(K) When choosing with H (panel mount), the installation space for lead wires will not be secured. In this case, select "wiring top entry" for the electrical entry.

Note 7) Only the AW10 has a pressure setting of 0.05 to 0.7 MPa.

Note 8) 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 9) Refer to Chemical Data on page 287 when selecting a case material.

Note 10) Float type auto drain: The combination of C and

D is not possible.

Note 11) Without a valve function

Note 12) Metal bowl: The combination of 2 and 8 is not possible.

Note 13) For thread type: M5 and NPT. This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.) The digital pressure switch will be equipped with the unit conversion function, setting to psi initially.

Note 14) For options: E1, E2, E3, E4. This product is for overseas use only according to the new Measurement Law. (The SI unit is provided for use in Japan.)

Note 15) ○: For thread type: M5 and NPT only

Note 16) △: Select with options: E1, E2, E3, E4.

Standard Specifications

Model	AW10	AW20(K)	AW30(K)	AW40(K)	AW40(K)-06	AW60(K)
Port size	M5 x 0.8	1/8, 1/4	1/4, 3/8	1/4, 3/8, 1/2	3/4	3/4, 1
Pressure gauge port size ^{Note 1)}	1/16 ^{Note 2)}	1/8		1/4		
Fluid	Air					
Ambient and fluid temperature ^{Note 3)}	−5 to 60°C (with no freezing)					
Proof pressure	1.5 MPa					
Maximum operating pressure	1.0 MPa					
Set pressure range	0.05 to 0.7 MPa	0.05 to 0.85 MPa				
Relief pressure ^{Note 4)}	Set pressure + 0.05 MPa [at relief flow rate of 0.1 ℓ/min (ANR)]					
Nominal filtration rating	5 μm					
Drain capacity (cm³)	2.5	8	25	45	45	45
Bowl material	Polycarbonate					
Bowl guard	—	Semi-standard	Standard			
Construction	Relieving type					
Mass (kg)	0.09	0.32	0.40	0.72	0.75	2.00

Note 1) Pressure gauge connection threads are not available for F.R.L. unit with a square embedded type pressure gauge (AW20(K) to AW60(K)).

Note 2) Use a bushing (part no:131368) when connecting the R1/8 pressure gauge to the Rc 1/16.

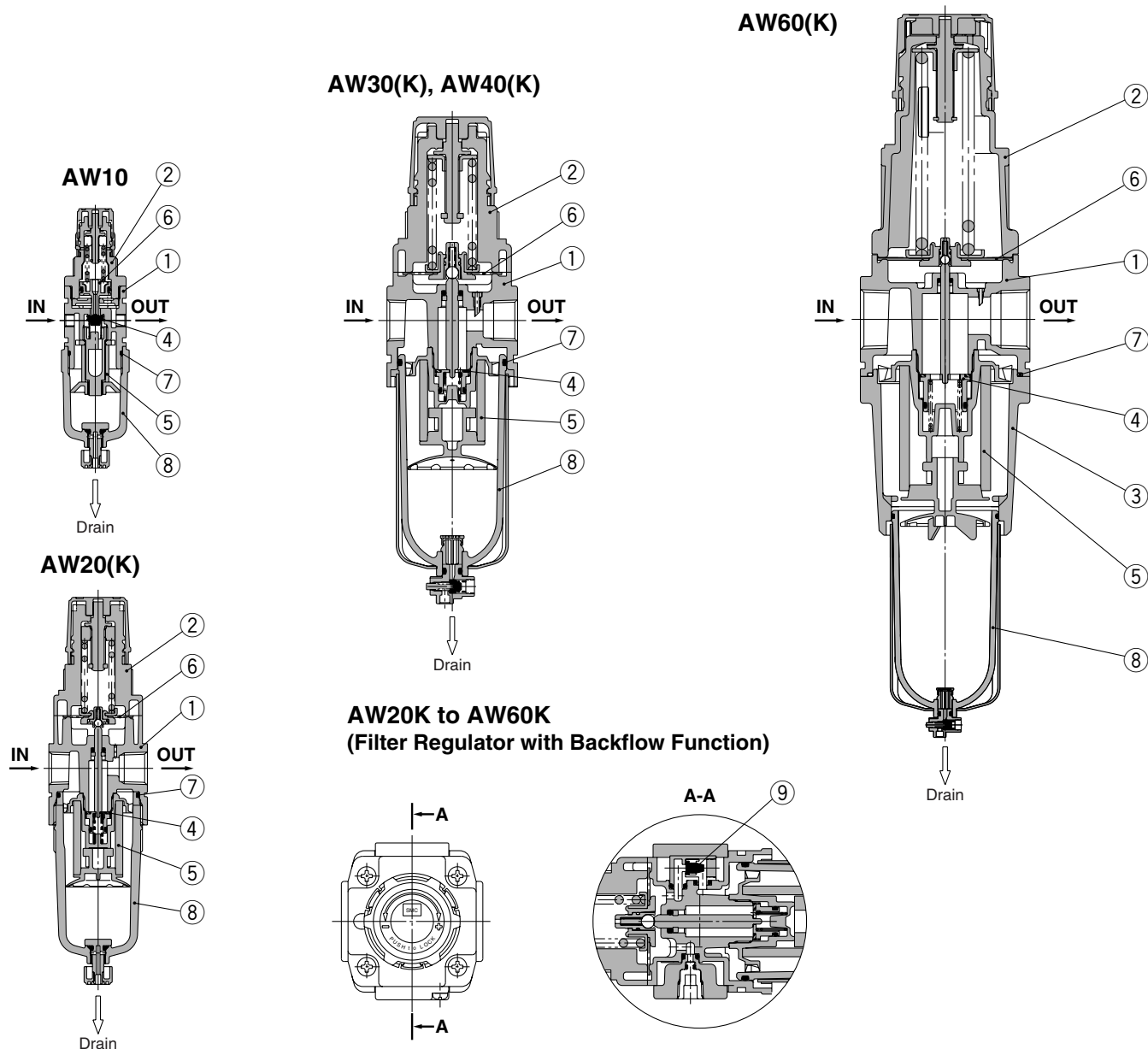
Note 3) -5 to 50°C for the products with the digital pressure switch

Note 4) Not applicable to the AW10.

Filter Regulator *Series AW10 to AW60*

Filter Regulator with Backflow Function *Series AW20K to AW60K*

Construction



Component Parts

No.	Description	Material	Model	Color
1	Body	Zinc die-cast	AW10, AW20	Platinum silver
		Aluminum die-cast	AW30 to AW60	
2	Bonnet	Polyacetal	AW10 to AW40	Black
		Aluminum die-cast	AW60	
3	Housing	Aluminum die-cast	AW60	Platinum silver

Replacement Parts

No.	Description	Material	Part no.					
			AW10	AW20(K)	AW30(K)	AW40(K)	AR40(K)-06	AW60(K)
4	Valve assembly	Brass, HNBR	AR10P-090S	AW20P-340AS	AW30P-340AS	AW40P-340AS		AW60P-090AS
5	Filter element	Non-woven fabric	AF10P-060S	AF20P-060S	AF30P-060S	AF40P-060S		AW60P-060S
6	Diaphragm assembly	Weatherable NBR	AR10P-150AS ^{Note 1)}	AR20P-150AS	AR30P-150AS	AR40P-150AS		AR50P-150AS
7	Bowl O-ring	NBR	C1SFP-260S	C2SFP-260S	C3SFP-260S	C4SFP-260S		
8	Bowl assembly ^{Note 2)}	Polycarbonate	C1SF	C2SF	C3SF ^{Note 3)}	C4SF ^{Note 3)}		
9	Check valve assembly ^{Note 4)}	—	—	AR20KP-020AS				

Note 1) The AW10 is a piston type. Assembly of a piston and a seal (KSYP-13).

Note 2) Bowl O-ring is included for the AW20(K) to AW60(K). Please contact SMC regarding the bowl assembly supply for psi and °F unit specifications.

Note 3) Bowl assembly for the AW30(K) to AW60(K) models comes with a bowl guard (steel band material).

Note 4) Check valve assembly is applicable for a filter regulator with backflow function (AW20K to AW60K) only.

Assembly of a check valve cover, check valve body assembly and 2 screws