


Modular Type Filter Regulator *Series AW*

Filter regulator Series AW	Model	Port size	Filtration	Accessory
		AW10	M5 x 0.8	
AW20		1/8, 1/4		
AW30		1/4, 3/8	5µm	
AW40		1/4, 3/8, 1/2		
AW40-06		3/4		

AW10 to 40

Standard specifications

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

Note 1) Pressure gauge connection threads are not required for regulators with a square embedded type pressure gauge (AW20 to AW40).

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

Note 3) Not applicable to AW10.

Accessory part no.

Applicable model		AW10	AW20	AW30	AW40	AW40-06			
Accessory									
Bracket assembly ^{Note 1)}		AR10P-270AS	AW20P-270AS	AR30P-270AS	AR40P-270AS	AR40P-270AS			
Set nut		AR10P-260S	AR20P-260S	AR30P-260S	AR40P-260S	AR40P-260S			
Pressure gauge	1.0MPa	Round	G27-10-R1	G36-10-□01	G36-10-□01	G46-10-□02	G46-10-□02		
		Square embedded type ^{Note 4)}	—	GC3-10AS	GC3-10AS	GC3-10AS	GC3-10AS		
	0.2MPa	Round	G27-10-R1 ^{Note 3)}	G36-2-□01	G36-2-□01	G46-2-□02	G46-2-□02		
		Square embedded type ^{Note 4)}	—	GC3-2AS	GC3-2AS	GC3-2AS	GC3-2AS		
Float type auto drain ^{Note 5)}	N.O.	—	—	AD38	AD38N ^{Note 6)}	AD48	AD48N ^{Note 6)}	AD48	AD48N ^{Note 6)}
	N.C.	AD17	AD27	AD37	AD37N ^{Note 6)}	AD47	AD47N ^{Note 6)}	AD47	AD47N ^{Note 6)}

Note 1) Assembly includes a bracket and set nuts.

Note 2) □ 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. Contact P/A regarding the connection thread NPT and supply of the pressure gauge for PSI unit specifications.

Note 3) For 1MPa.

Note 4) Includes one O-ring and 2 mounting screws.

Note 5) Minimum operating pressure: N.O. type-0.1MPa; N.C. type-0.1MPa (AD17/27) and 0.15MPa (AD37/47). Contact P/A regarding the specifications for PSI unit and "F".

Note 6) When "N" is specified in the end of part number of auto drain, applicable tube O.D should be ø3/8".

⚠ Specific Product Precautions

Be sure to read before handling. Refer to pages 75 through 78 for safety instructions and F.R.L. unit precautions.

Selection

⚠ Warning

- Residual pressure release (outlet pressure release) is not completed by releasing inlet pressure. To release residual pressure, use a filter regulator with a back flow mechanism.

Maintenance

⚠ Warning

- Replace the element every 2 years or when the pressure drop becomes 0.1MPa, whichever comes first, to prevent damage to the element.

Mounting & Adjustment

⚠ Warning

- Set the regulator while checking the displayed values of the inlet and outlet pressure gauges. Turning the knob excessively can cause damage to the internal parts.
- The pressure gauge indicated with regulators for 0.02 to 0.2MPa setting is for 0.2MPa use only. Exceeding 0.2MPa of pressure can damage the gauge.
- Do not use tools on the pressure regulator knob as this may cause damage. It must be operated manually.

⚠ Caution

- Be sure to unlock the knob before adjusting the pressure and lock it after setting the pressure. Failure to follow this procedure can cause damage to the knob and the outlet pressure may fluctuate.

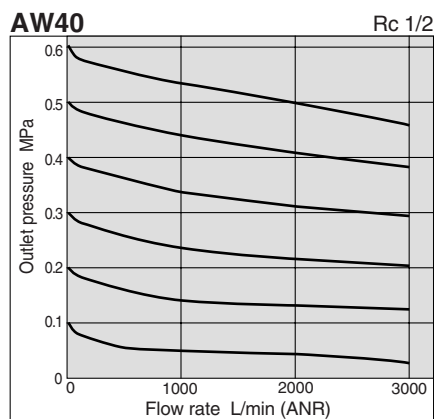
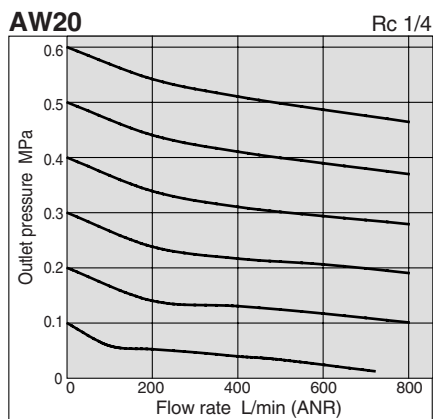
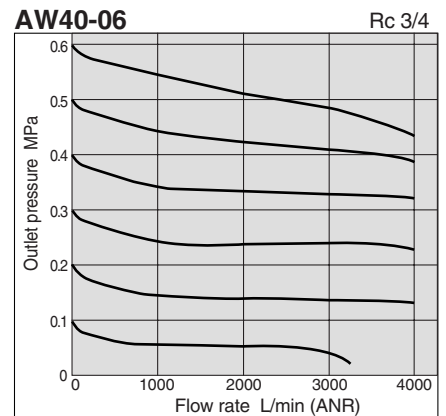
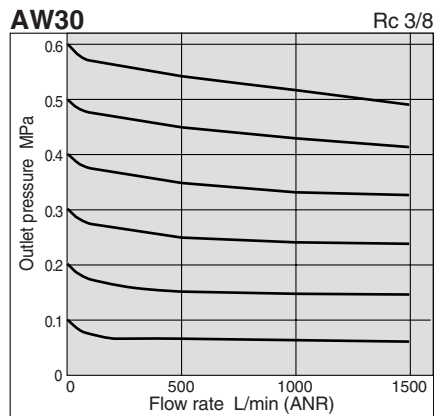
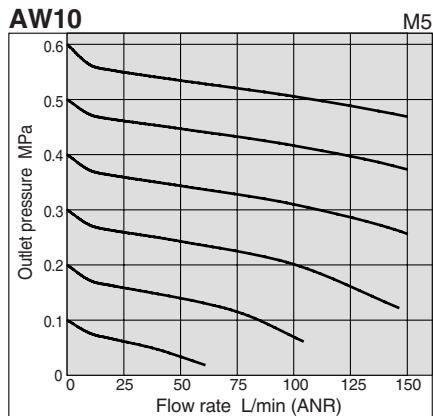
- Pull the pressure regulator knob to unlock. (You can visually verify this with the "orange mark" that appears in the gap.)
- Push the pressure regulator knob to lock. When the knob is not easily locked, turn it left and right a little and then push it (when the knob is locked, the "orange mark" will disappear).



- A knob cover is available to prevent careless operation of the knob. Refer to Features 1 for details.

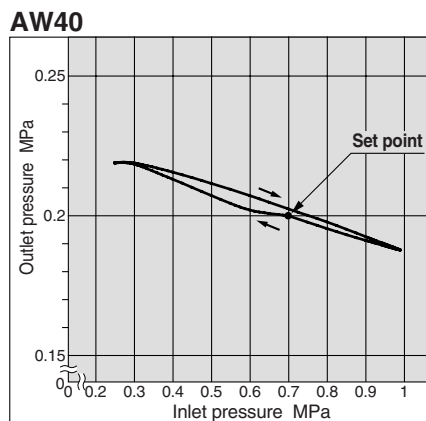
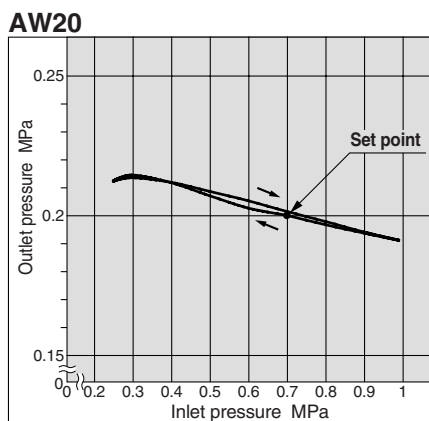
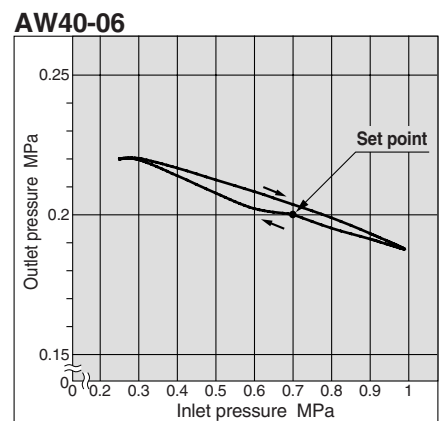
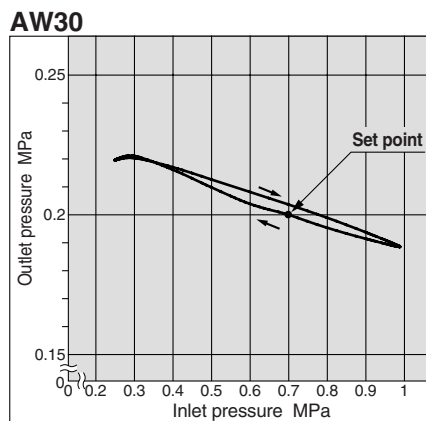
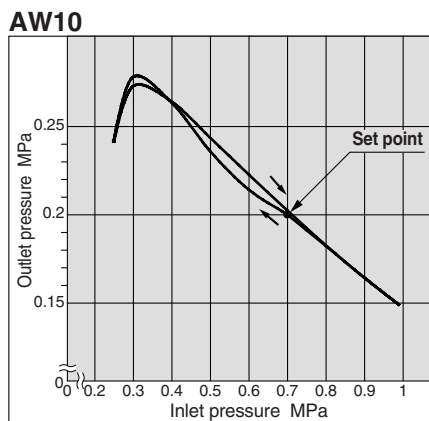
Flow Characteristics (Representative values)

Condition: Inlet pressure 0.7MPa



Pressure Characteristics (Representative value)

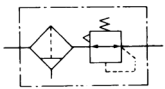
Conditions: Inlet pressure 0.7MPa; Outlet pressure 0.2MPa; Flow rate 20L/min (ANR)



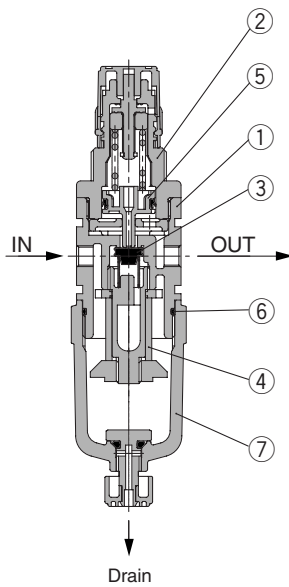
AW10 to 40

Construction

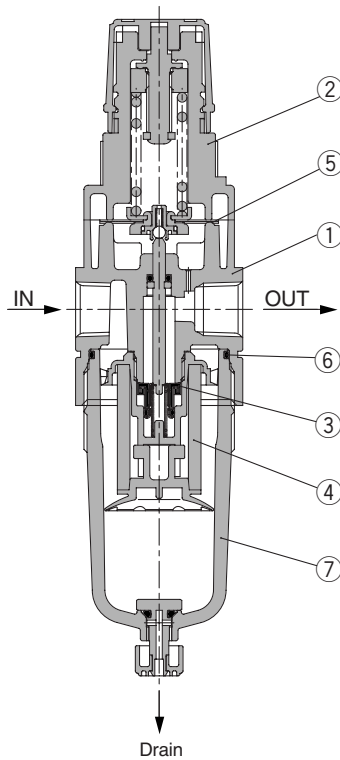
JIS symbol



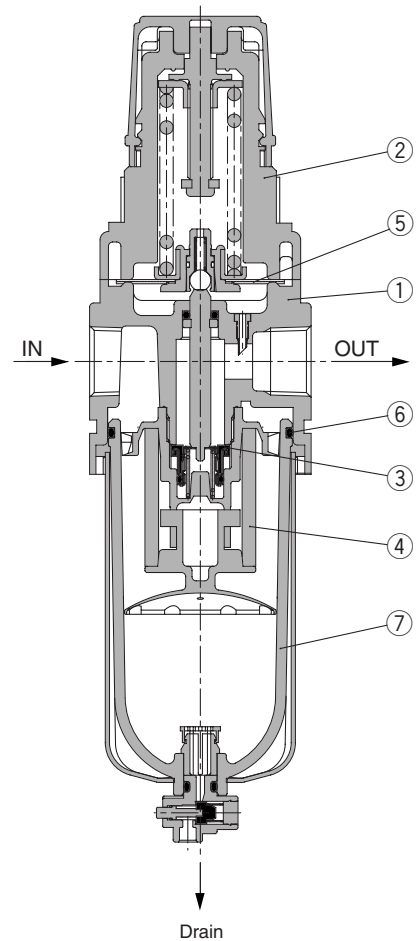
AW10



AW20



AW30, 40



Parts list

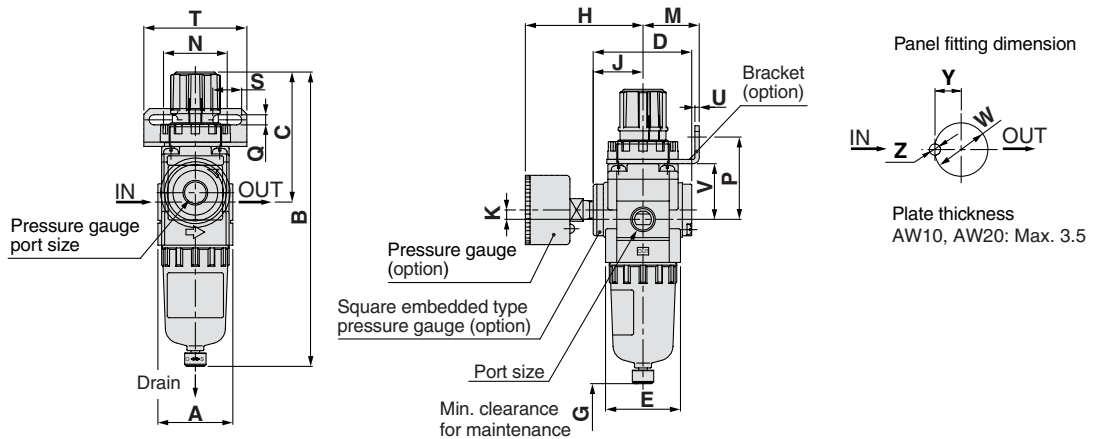
No.	Description	Material			Note
		AW10, 20	AW30	AW40, 40-06	
1	Body	Zinc die-cast	Aluminum die-cast		Platinum silver
2	Bonnet	Polyacetal			Black

Replacement parts

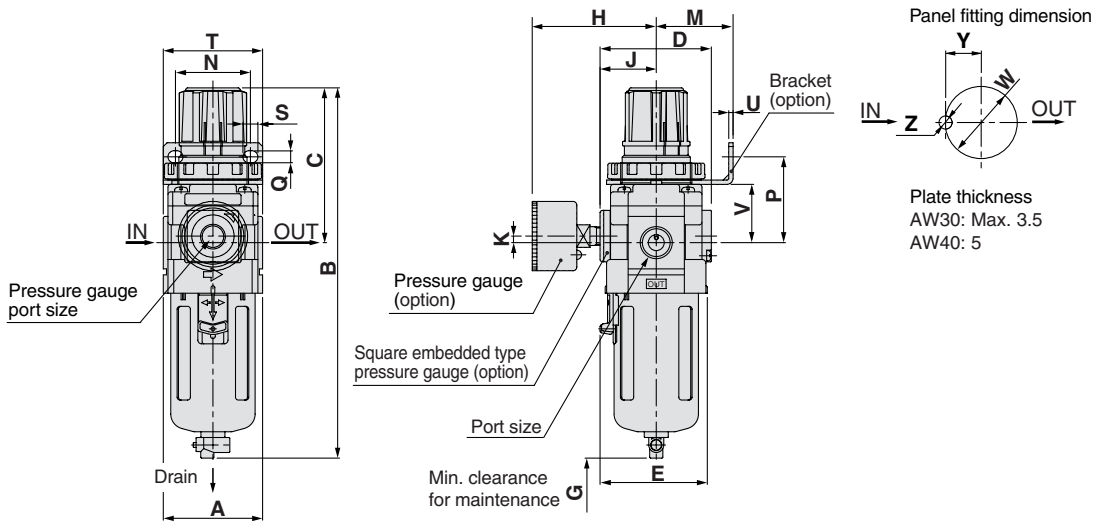
No.	Description	Material	Part no.				
			AW10	AW20	AW30	AW40	AW40-06
3	Valve assembly	Stainless steel Brass, HNBR	AR10P-090S	AW20P-090AS	AW30P-090AS	AW40P-090AS	AW40P-090AS
4	Filter element	Non-woven fabric	AF10P-060S	AF20P-060S	AF30P-060S	AF40P-060S	AF40P-060S
5	Diaphragm assembly	Weatherability NBR	AR10P-150AS <small>Note 1)</small>	AR20P-150AS	AR30P-150AS	AR40P-150AS	AR40P-150AS
6	Bowl O-ring	NBR	C1SFP-260S	C2SFP-260S	C3SFP-260S	C4SFP-260S	C4SFP-260S
7	Bowl assembly <small>Note 2)</small>	PC	C1SF	C2SF	C3SF <small>Note 3)</small>	C4SF <small>Note 3)</small>	C4SF <small>Note 3)</small>

Dimensions

AW10, 20



AW30, 40



Applicable model	AW10, AW20				AW30, AW40, AW40-06			
Optional specifications	With auto drain (N.C.)	Metal bowl	With auto drain (N.O./N.C.)	Metal bowl	Metal bowl with level gauge	With drain guide	Drain cock with barb fitting	
	M5 x 0.8		N.O.: Black N.C.: Gray ø10 One-touch fitting			1/4 Width across flats 17	Barb fitting Applicable tubing: T0604	

Model	Port size	Standard specification						Accessory specification														
		A	B	C	D	E	G	With pressure gauge			Bracket mounting size						Panel mount			With auto drain		
								H	J	K	M	N	P	Q	S	T	U	V	W	Y	Z	B
AW10	M5 x 0.8	25	108	48	25	28	25	26	—	0	25	28	30	4.5	6.5	40	2	18	18.5	—	—	125
AW20	1/8, 1/4	40	160	73	52	40	40	63	27	5	30	34	44	5.4	15.4	55	2.3	30	28.5	14	6	177
AW30	1/4, 3/8	53	201	86	59	57	55	66	30.5	3.5	41	40	46	6.5	8	53	2.3	31	38.5	19	7	242
AW40	1/4, 3/8, 1/2	70	239	92	75	73	80	76	38.5	1.5	50	54	54	8.5	10.5	70	2.3	35.5	42.5	21	7	278
AW40-06	3/4	75	242	93	75	73	80	76	38.5	1.2	50	54	56	8.5	10.5	70	2.3	37	42.5	21	7	278

Model	Optional specification			
	With barb fitting	With drain guide	Metal bowl	Metal bowl with level gauge
	B	B	B	B
AW10	—	—	107	—
AW20	—	—	160	—
AW30	209	208	214	234
AW40	247	246	251	272
AW40-06	250	249	255	275