

# AW 20K-FO2CE-H

Filter Regulator AW20K

0-6.8.01-C

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## DESIGN

Integrated filter and regulator units save space and require less piping. With the backflow function it incorporates a mechanism to exhaust the air pressure in the outlet side reliably and quickly.

## FEATURES

- Space saving and requires less piping
- No manual draining due to auto drain function

## TECHNICAL DATA

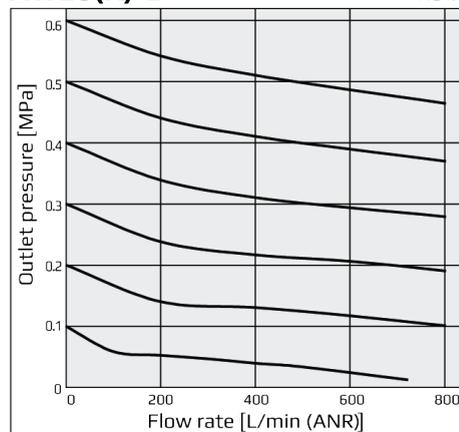
<b>With backflow function</b>	YES
<b>Thread type</b>	G 1/8
<b>Port Size</b>	1/4
<b>Float type auto drain</b>	Float type auto drain N.C. type-0.1 MPa (AD27)
<b>Pressure gauge</b>	Square embedded type pressure gauge (with limit indicator)
<b>Body</b>	<b>Material</b> Zinc die-cast <b>Color</b> Platinum Silver
<b>Bonnet</b>	Polyacetal Black
<b>Port Size</b>	1/4
<b>Pressure gauge port size</b>	1/8
<b>Fluid</b>	Air
<b>Ambient and fluid temperature</b>	-5 to 60 °C
<b>Proof pressure</b>	1.5 MPa
<b>Maximum operating pressure</b>	1.0 MPa
<b>Set pressure range</b>	0.05 to 0.85 MPa
<b>Relief pressure</b>	Set pressure + 0.05 MPa at relief flow rate of 0.1
<b>Nominal filtration rating</b>	
<b>Drain capacity (cm<sup>3</sup>)</b>	8
<b>Bowl material</b>	Polycarbonate
<b>Optional</b>	Replaceable with Nylon bowl part no. AD27-6
<b>Bowl guard</b>	Semi-standard
<b>Construction</b>	Relieving type
<b>Mass (kg)</b>	0.32
	Resistan to oil mist. (AW20K-FO2CEH-6-B)

Subject to change without notice.

## FLOW CHARACTERISTICS

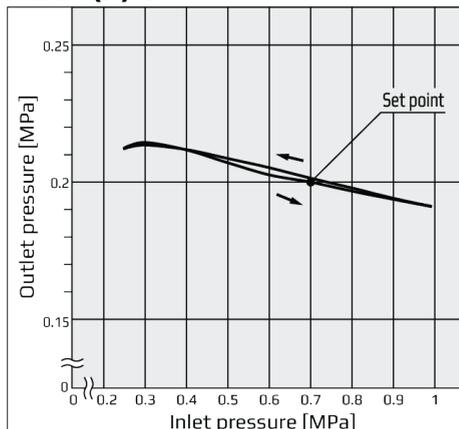
### AW20(K)-B

Rc1/4



## PRESSURE CHARACTERISTICS

### AW20(K)-B



## OPTIONS/PART NO.

Float type auto drain <sup>1,2</sup>

AD27

<sup>1</sup> Minimum operating pressure: N.O. type-0.1 MPa; (AD27)

<sup>2</sup> Please consult Clorius Controls for details on drain piping to fit NPT or G port sizes

**WORKING PRINCIPLE**

When the inlet pressure is higher than the regulating pressure, check valve (2) closes and operates as a normal regulator (**Figure 1**). When the inlet pressure is shut off and released, check valve (2) opens and the pressure in the diaphragm chamber (1) is released in the inlet side.

This lowers the pressure in diaphragm chamber (1) and the force generated by pressure regulator spring (3) lifts the diaphragm. Valve (4) opens through the stem, and the outlet pressure is released to the inlet side.

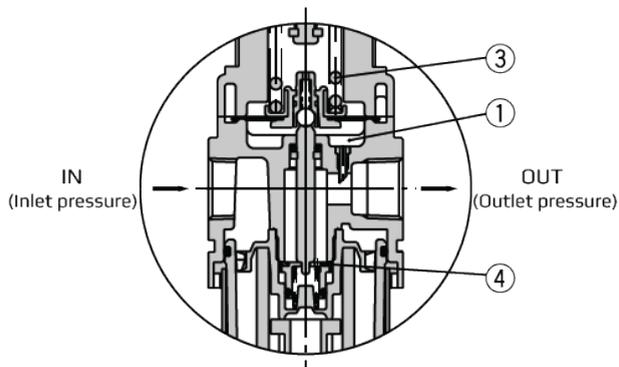
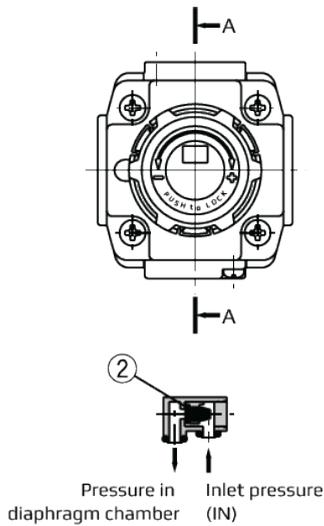


Figure 1 Normal

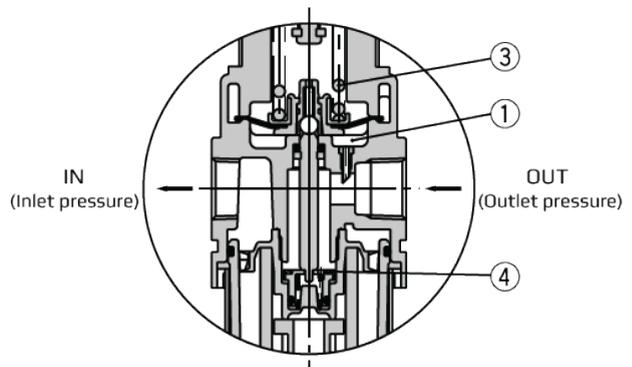
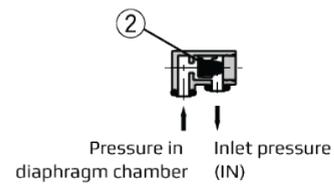


Figure 2 Backflow

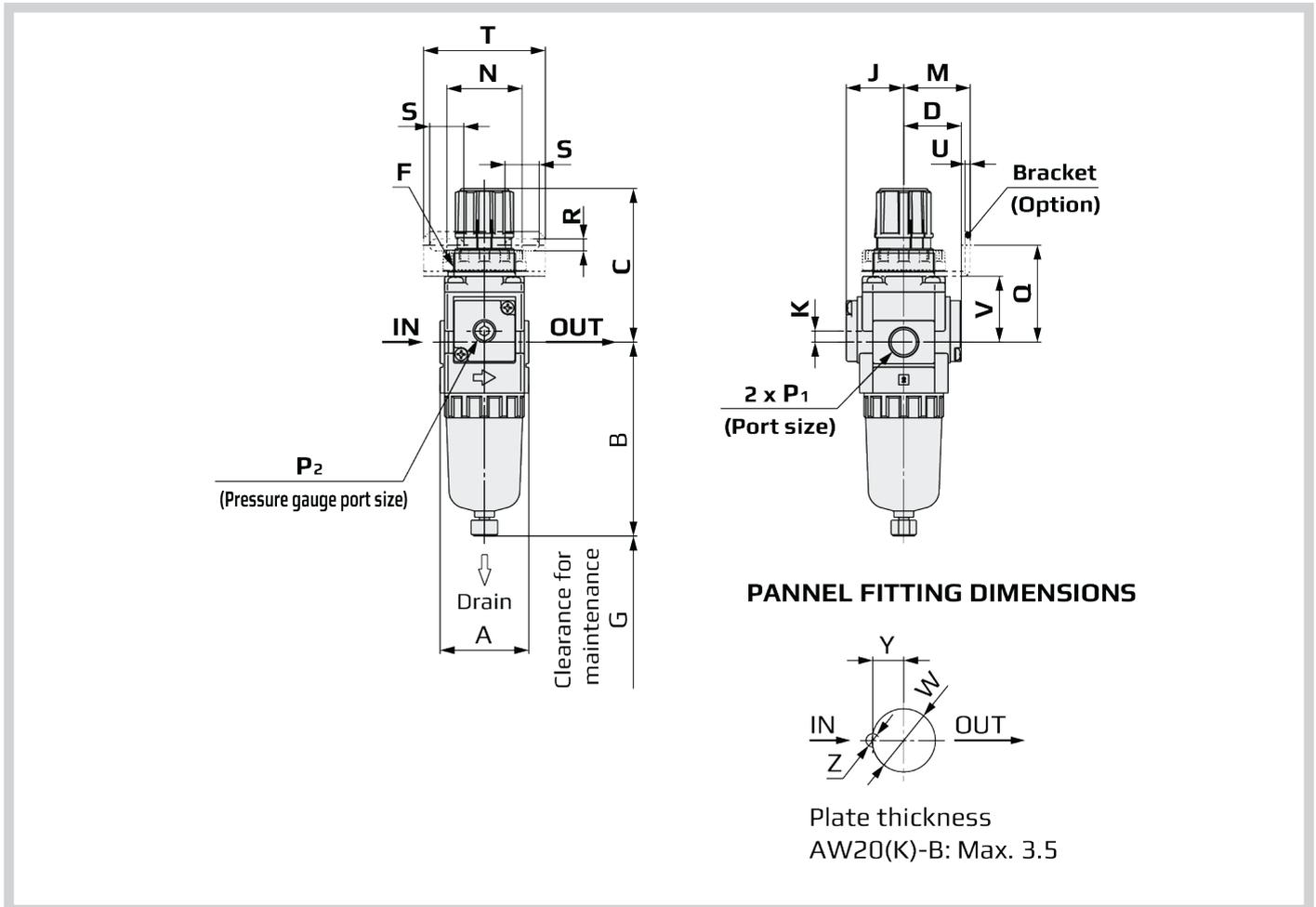
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## DIMENSION SKETCH



Model	Standard specifications										
	P1	P2	A	B(note)	C	D	E	F	G	J	K
AW20K	1/8	1/8	40	160	73	26	-	M28x1	40	26	S

Model	Standard specifications											
	Bracket mount							Panel Mount				With auto drain
	M	N	Q	R	S	T	U	V	W	Y	Z	B <sup>(note)</sup>
AW20K	30	34	44	5.4	15.-4	55	2.3	30	28.5	14	6	177

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

## SPECIFIC PRODUCT PRECAUTIONS

### Maintenance

#### WARNING

1. Replace the regulator when the pressure drop becomes 0.1 MPa

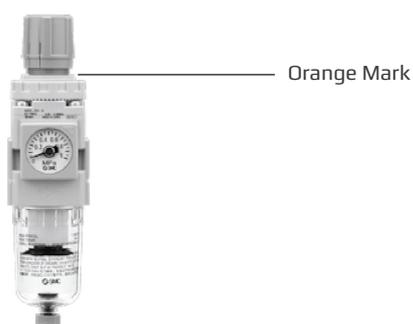
### Mounting and adjusting

#### WARNING

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

#### CAUTION

1. 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”, i.e. the gap will disappear).



2. A knob cover is available to prevent careless operation of the knob. Refer to page 90 for details.