Filter Regulator
Series IW

- **Two types are available: adjustable set pressure type and fixed set pressure type.**
- **Low/High temperature and external parts copper-free types can be selected.**
- **Pressure gauge connecting direction: 2 directions (Front/Back)**
- **Weight: 0.66 kg (Adjustable type), 0.58 kg (Fixed type)**



How to Order

IW 2 [1] [2] – [ ] 02 [ ] – [ ]

Filter regulator

Type of setting

1	Adjustable type (Handle)
2	Fixed type (0.14 MPa)

Set pressure

2	0.02 to 0.2 MPa
3	0.02 to 0.3 MPa
5	0.02 to 0.5 MPa

∗ Fixed type is IW222 only.

Thread type

Nil	Rc
N	NPT∗

∗ Semi-standard

Port size

02	1/4

Accessories

Nil	None
B	With bracket
G	With pressure gauge

Suffix

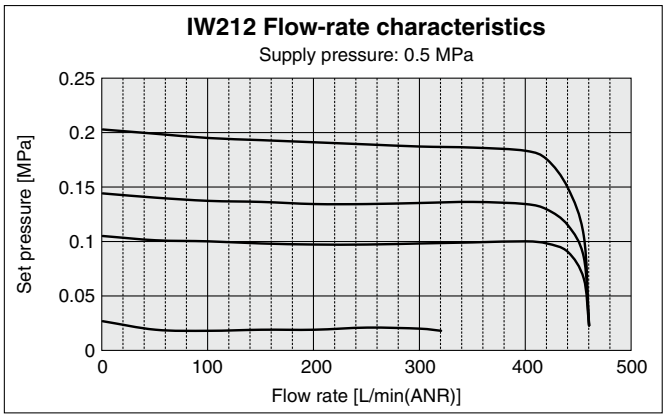
	Low temperature (–30 to 60°C)	High temperature∗ (–10 to 100°C)	External parts copper-free
Nil	—	—	—
T	—	●	—
L	●	—	—
S	—	—	●
ST	—	●	●
SL	●	—	●

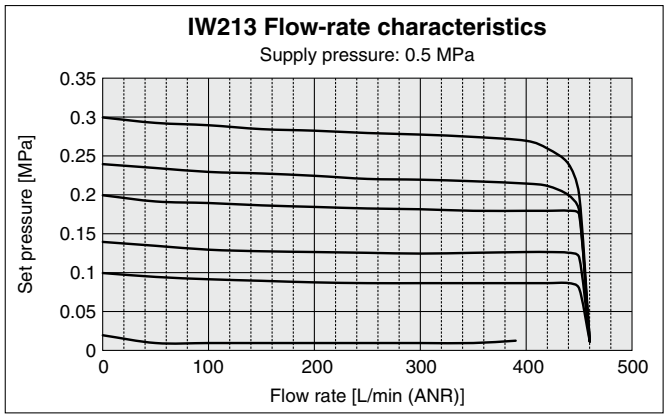
∗ With pressure gauge type: Max. 80°C.

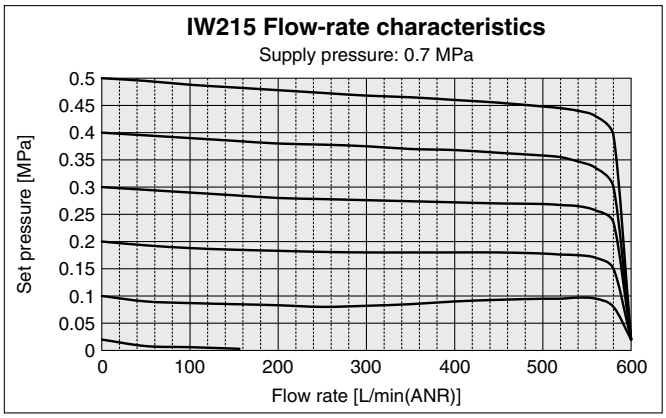
Standard Specifications

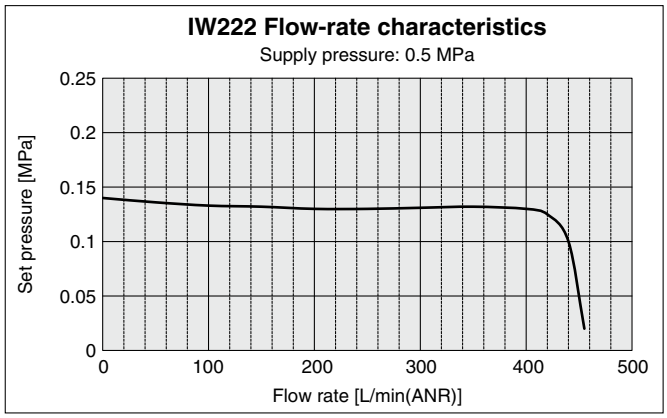
Model	IW212	IW213	IW215	IW222
	Adjustable type (Basic)			Fixed type
Maximum supply pressure	Max. 1.0 MPa			0.3 to 1.0 MPa
Set pressure	0.02 to 0.2 MPa	0.02 to 0.3 MPa	0.02 to 0.5 MPa	0.14 MPa
Air consumption (At maximum set pressure)	1 L/min (ANR) or less			0.5 L/min (ANR) or less
Ambient and fluid temperature	–10 to 60°C (No freezing)			
Filtration accuracy	5 μm			
Port size	Rc1/4			
Pressure gauge port	Rc1/4 (2 locations)			
Weight	0.66 kg			0.58 kg

Flow-rate Characteristics (Representative values)

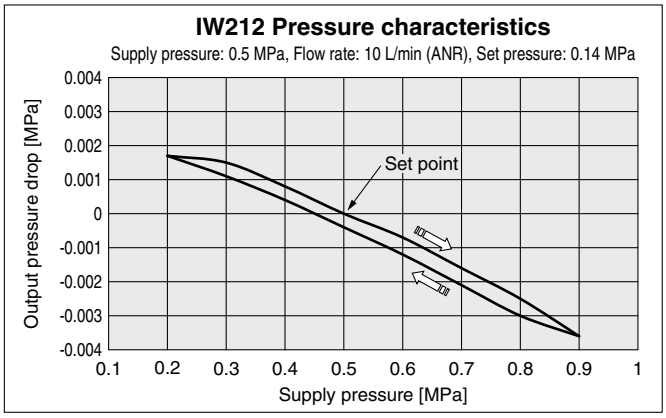


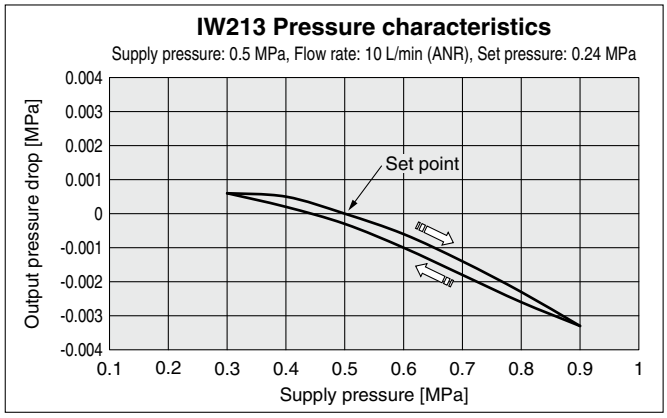


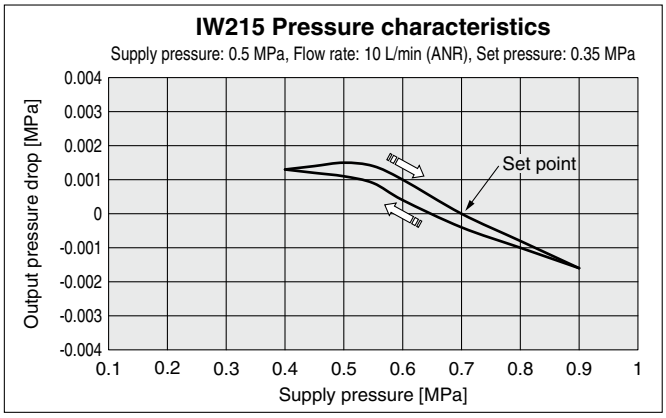


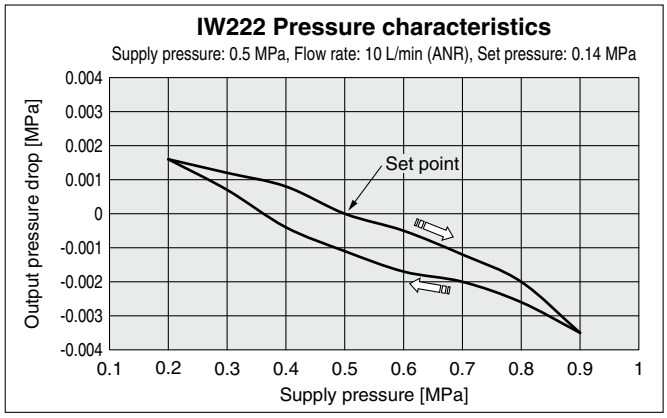


Pressure Characteristics (Representative values)

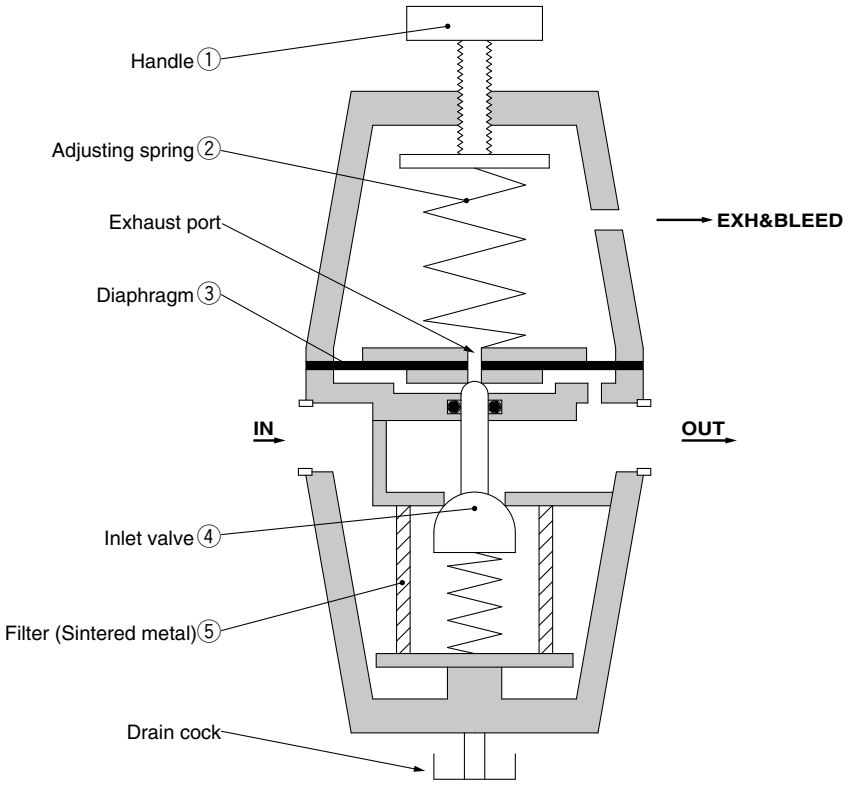






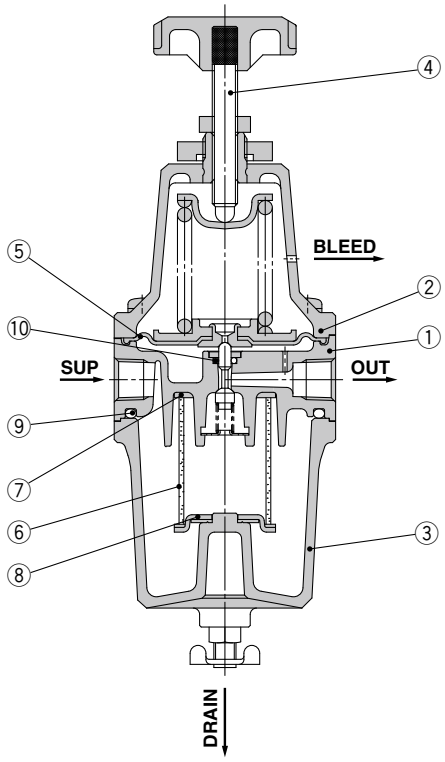


Principle of Operation



Air flow from the inlet passes through filter (sintered metal) ⑤ where solids are removed. When handle ① is adjusted downwards, adjusting spring ② is compressed. The inlet valve ④ is opened allowing air flow to the outlet. Air outlet pressure balances against diaphragm ③ and adjusting spring ②. When the outlet pressure is higher than the set pressure, the inlet valve ④ is closed and exhaust of the excess outlet pressure takes place through the adjusting spring cover bleed. This ensures constant outlet pressure is maintained.

Construction



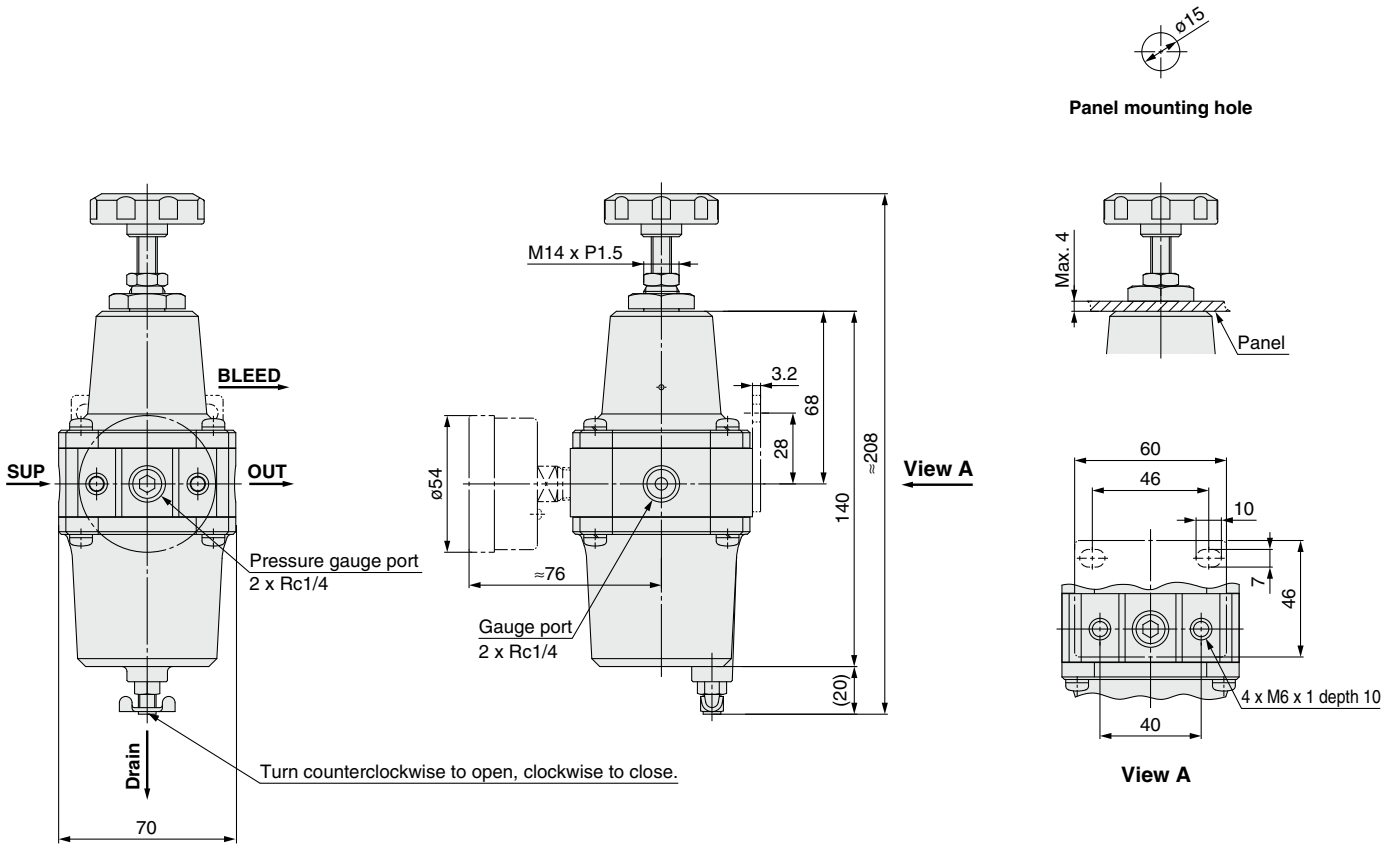
Component Parts

No.	Description	Material	Note
1	**Body assembly**	Aluminum die-casted/Aluminum	Silver color
2	**Bonnet**	Aluminum die-casted/Brass	Silver color
3	**Bowl assembly**	Aluminum die-casted/Brass	Silver color
4	**Handle**	ABS/Stainless steel	—

Replacement Parts

No.	Description	Material	Part no.
5	**Diaphragm assembly**	Aluminum die-casted/Brass/NBR	P218010-1
6	**Element**	Bronze	1301111-5B
7	**Seal**	NBR	1301510
8	**Filter disk assembly**	Brass/NBR	P218010-16
9	**O-ring**	NBR	AS568-228
10	**O-ring**	NBR	JISB2401 P4

Dimensions


ø15
Panel mounting hole
BLEED
SUP
OUT
Pressure gauge port
2 x Rc1/4
Drain
Turn counterclockwise to open, clockwise to close.
70
M14 x P1.5
3.2
68
28
≈208
140
(20)
ø54
≈76
Gauge port
2 x Rc1/4
View A
Max. 4
Panel
60
46
10
7
46
4 x M6 x 1 depth 10
40
View A

Filter Regulator
Series 1301



- **External main parts: Stainless steel type is available.**
- **Low temperature/High temperature type is available. (Made-to-Order products of Series AW on page 45)**

How to Order

1301 – 002 □

Filter regulator

Set pressure

002	0.02 to 0.2 MPa
1202	0.02 to 0.29 MPa
2502	0.02 to 0.49 MPa
902*	0.02 to 0.2 MPa

Accessories

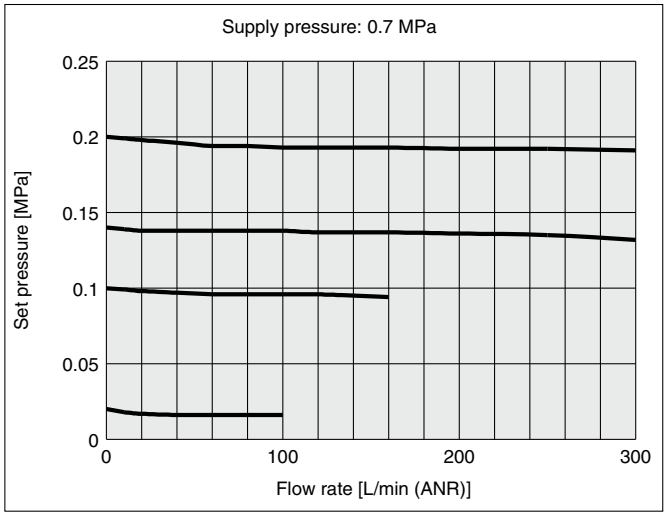
Nil	None
B	With bracket
G	With pressure gauge

* External main parts are made of stainless steel. For details, refer to page 43.

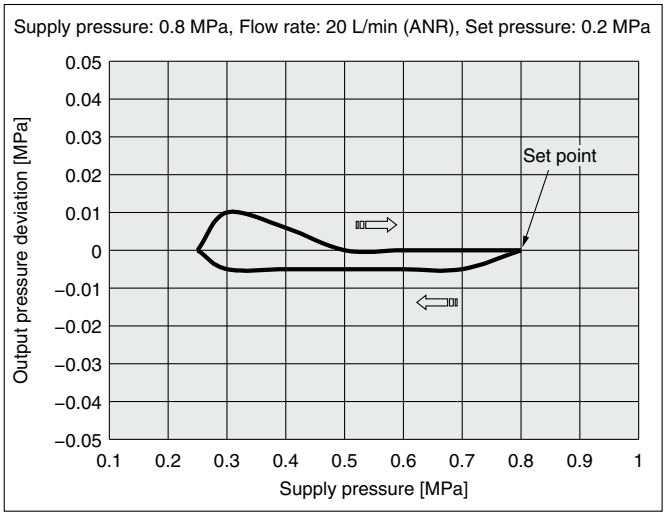
Standard Specifications

Model	Basic type			External main parts: Stainless steel
	1301-002	**1301-1202**	**1301-2502**	**1301-902**
Maximum supply pressure	Max. 1.0 MPa			
Set pressure	0.02 to 0.2 MPa	0.02 to 0.29 MPa	0.02 to 0.49 MPa	0.02 to 0.2 MPa
Ambient and fluid temperature	–5 to 60°C (No freezing)			
Filtration accuracy	5 µm			
Port size	Rc1/4			
Pressure gauge port	Rc1/8 (1 location)			
Weight	1.07 kg			

Flow-rate Characteristics (Representative values)

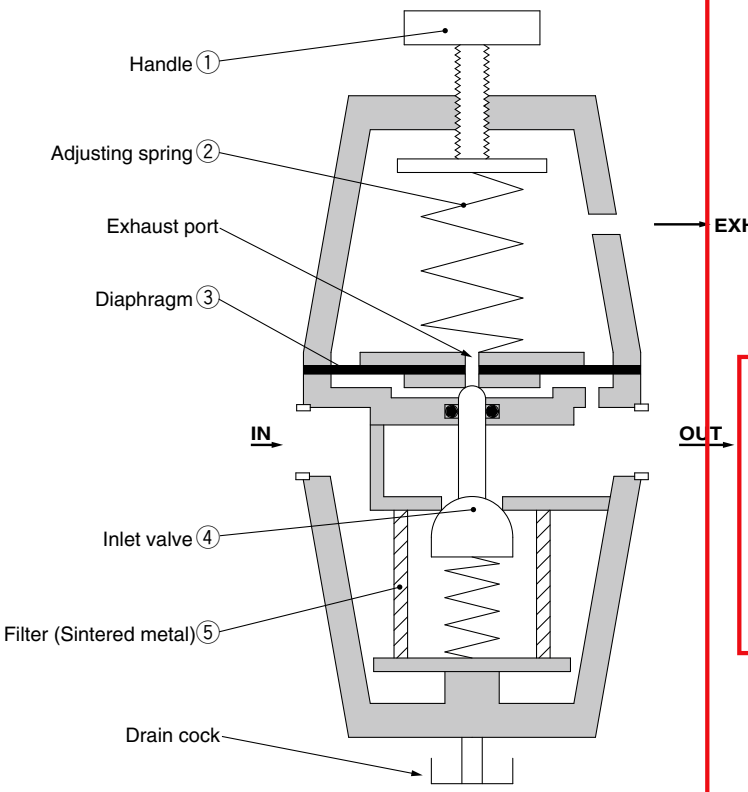


Pressure Characteristics (Representative values)



Principle of Operation

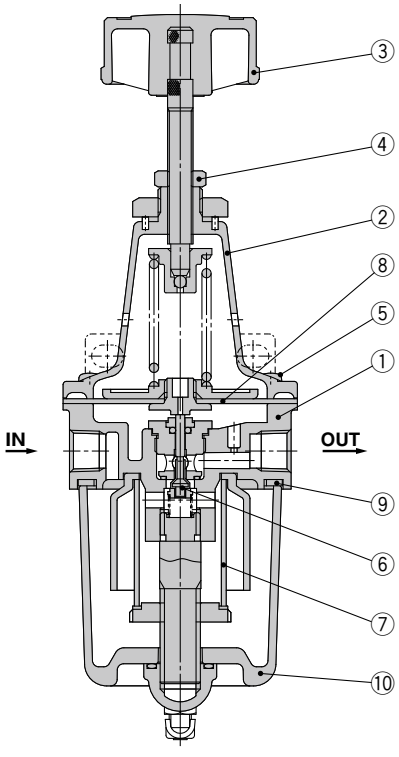
1301



Air flow from the inlet passes through filter (sintered metal) ⑤ where solids are removed. When handle ① is adjusted downwards, adjusting spring ② is compressed. The inlet valve ④ is opened allowing air flow to the outlet. Air outlet pressure balances against diaphragm ③ and adjusting spring ②. When the outlet pressure is higher than the set pressure, the inlet valve ④ is closed and exhaust of the excess outlet pressure takes place through the adjusting spring cover bleed. This ensures constant outlet pressure is maintained.

Construction

1301



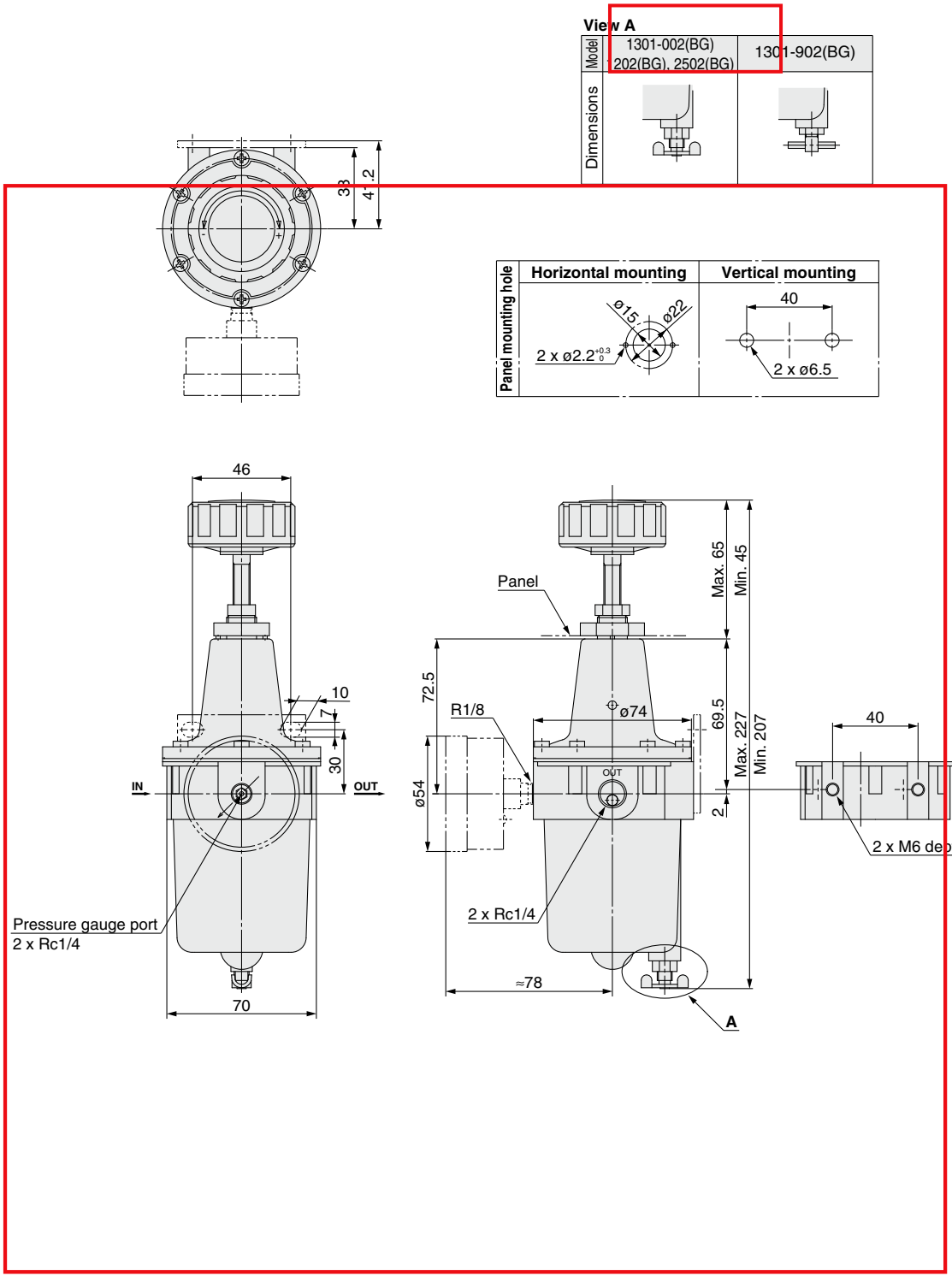
Component Parts

No.	Description	Material				Note
		Basic type			External main parts: Stainless steel	
		1301-002	1301-1202	1301-2502	1301-902	
1	Decompression chamber	Zinc die-casted				Silver color
2	Bonnet	Zinc die-casted				Silver color
3	Handle	ABS/Brass			ABS/Stainless steel	—
4	Lock nut	Brass			Stainless steel	—
5	Round head Phillips screw	Brass			Stainless steel	—

Replacement Parts

No.	Description	Material	Part no.			
			Basic type			External main parts: Stainless steel
			1301-002	1301-1202	1301-2502	1301-902
6	Pilot valve	Stainless steel/NBR	1301207#1			1301207#1
7	Element	Bronze	1301111-5B			1301111-5B
8	Diaphragm assembly	Weather resistant NBR/ Brass/ADC	13014A			13014A
9	Bowl seal	NBR	130124			130124
10	Bowl assembly	ZDC/Brass	130191A			—
		ZDC/Stainless steel	—			130191A-S

Dimensions


View A
Model
1301-002(BG)
1202(BG), 2502(BG)
1301-902(BG)
Dimensions
33
4
2
Panel mounting hole
Horizontal mounting
Vertical mounting
ø15
ø22
2 x ø2.2 +0.3 0
40
2 x ø6.5
46
10
7
30
IN
OUT
Pressure gauge port
2 x Rc1/4
70
Panel
Max. 65
Min. 45
72.5
R1/8
ø74
69.5
Max. 227
Min. 207
ø54
OUT
2
40
2 x M6 depth 10
2 x Rc1/4
≈78
A