

Filter Regulator

IW Series

- 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 (Knob) |
| 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.

Accessories

| | |
|-----|---------------------|
| Nil | None |
| B | With bracket |
| G | With pressure gauge |

Port size

| | |
|----|-----|
| 02 | 1/4 |
|----|-----|

Thread type

| | |
|-----|------|
| Nil | Rc |
| N | NPT* |

* Semi-standard

Suffix

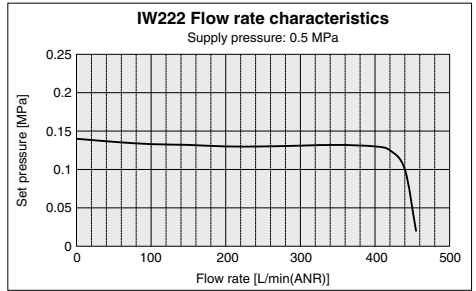
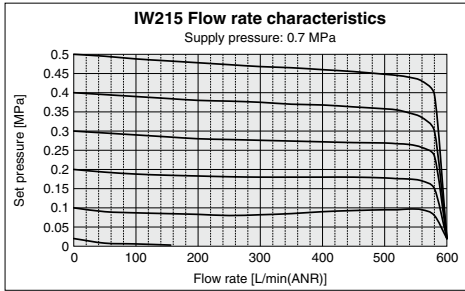
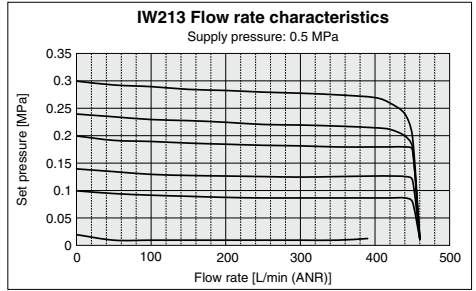
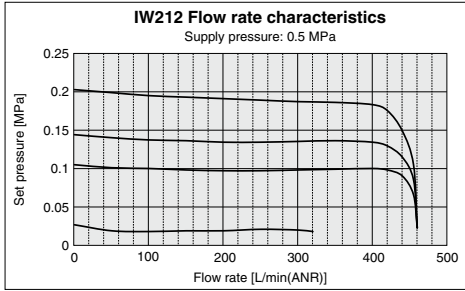
| | Low temperature (-30 to 60°C) | High temperature* (-10 to 100°C) | External parts copper-free |
|-----|----------------------------------|-------------------------------------|-------------------------------|
| Nil | — | — | — |
| T | — | ● | — |
| L | ● | — | — |
| S | — | — | ● |
| ST | — | ● |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

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

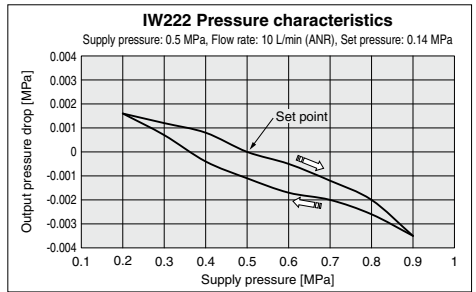
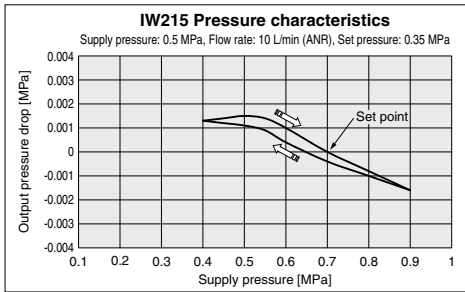
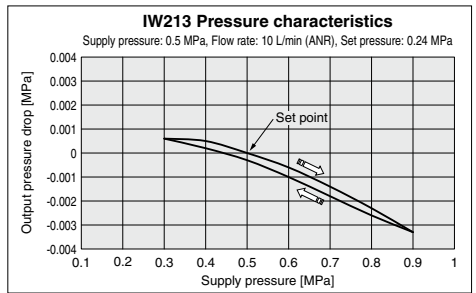
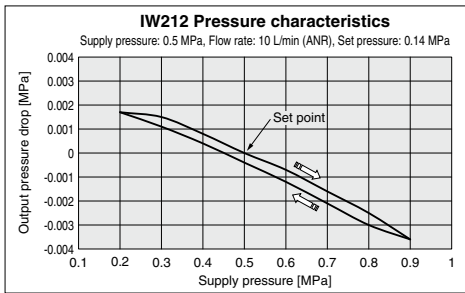
Standard Specifications

| 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)

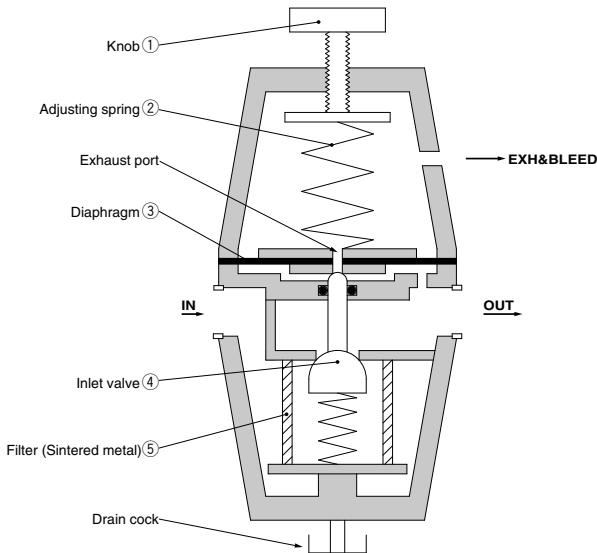


Pressure Characteristics (Representative values)



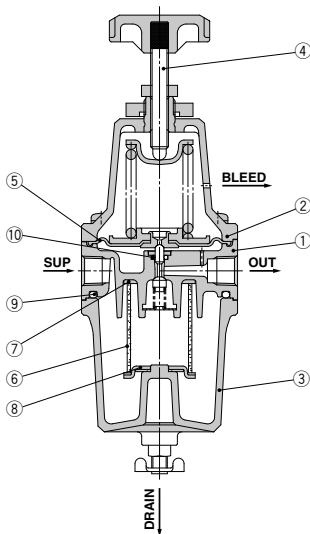
- IP
- IW**
- 1301
- AW
- IL1
- IL2
- IT
- CP
- IS
- VFN
- IN-
- T

Principle of Operation



Air flow from the inlet passes through filter (sintered metal) ⑤ where solids are removed. When knob 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



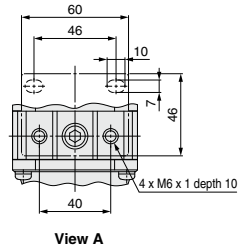
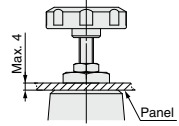
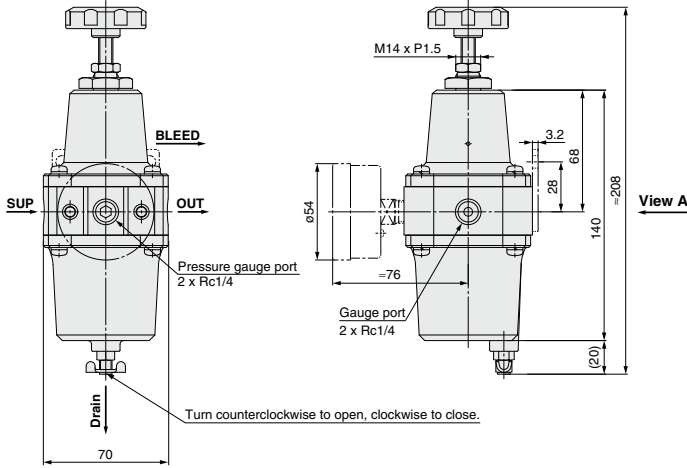
Component Parts

| 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 | Knob | 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



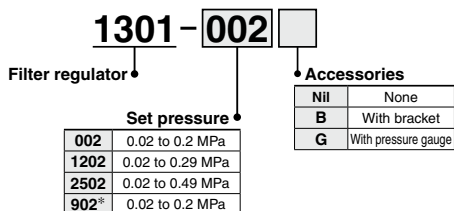
| |
|-----------------------------------|
| IP |
| IW |
| 1301 |
| AW |
| IL1 <input type="checkbox"/> |
| IL2 <input type="checkbox"/> |
| IT |
| CP <input type="checkbox"/> |
| IS |
| VFN |
| IN- T <input type="checkbox"/> |

Filter Regulator 1301 Series

- External main parts: Stainless steel type is available.
- Low temperature/High temperature type is available.
(Made-to-Order products of the AW series on page 161)



How to Order



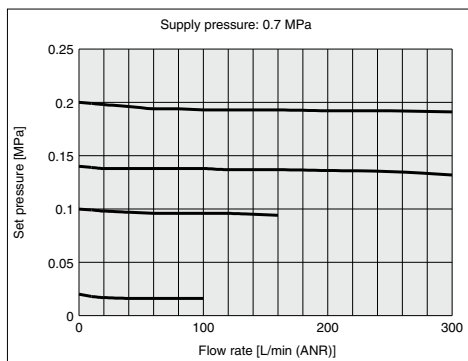
| | |
|------------|---------------------|
| NII | None |
| B | With bracket |
| G | With pressure gauge |

* External main parts are made of stainless steel. For details, refer to page 159.

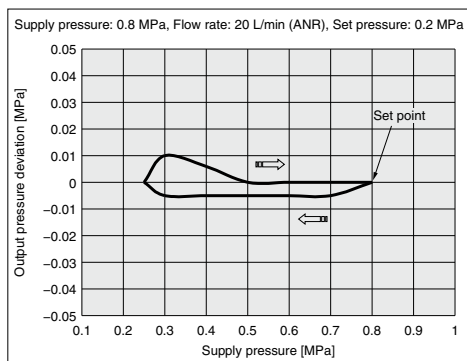
Standard Specifications

| 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)

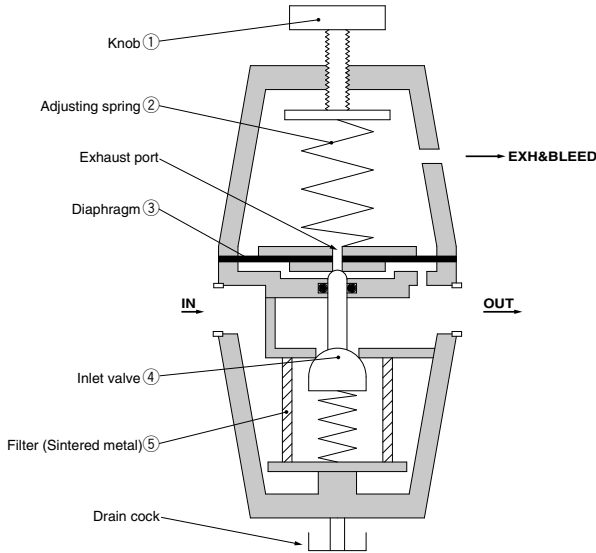


Pressure Characteristics (Representative values)



Principle of Operation

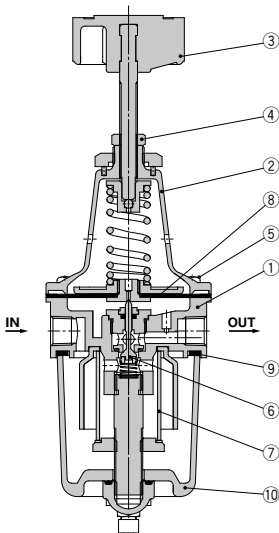
1301



Air flow from the inlet passes through filter (sintered metal) ⑤ where solids are removed. When knob 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 | | |
| 1 | Decompression chamber | Zinc die-casted | | | | Silver color |
| 2 | Bonnet | Zinc die-casted | | | | Silver color |
| 3 | Knob | ABS/Brass | | ABS/Stainless steel | | — |
| 4 | Lock nut | Brass | | Stainless steel | | — |
| 5 | Round head Phillips screw | Brass | | Stainless steel | | — |

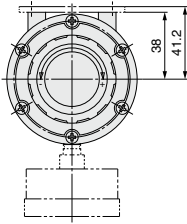
Replacement Parts

| No. | Description | Material | Part no. | | | |
|-----|--------------------|---------------------------------|------------|-----------|-----------|---|
| | | | Basic type | | | External main parts: Stainless steel |
| | | | 1301-002 | 1301-1202 | 1301-2502 | |
| 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 |

- IP
- IW
- 1301**
- AW
- IL1
- IL2
- IT
- CP
- IS
- VFN
- IN-
- TI

1301 Series

Dimensions



View A

| | | |
|------------|------------------------------------|--------------|
| Model | 1301-002(BG) 1202(BG), 2502(BG) | 1301-902(BG) |
| Dimensions | | |

| Panel mounting hole | Horizontal mounting | Vertical mounting |
|---------------------|---------------------|-------------------|
| | | |

