

Filter Regulator Series AW60

Body size 60 (port size: 3/4 and 1) has been added to Filter Regulator AW Series.

Check valve construction is featured. (AW60K)

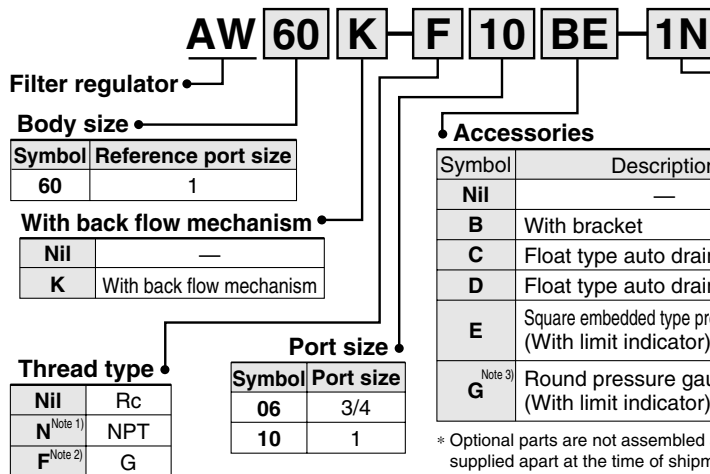
Pressure control of both a cylinder and an actuator is possible.



Square embedded type pressure gauge

Round pressure gauge

How to Order



Note 1) The drain guide is NPT1/4, and the exhaust port for auto drain comes with $\phi 3/8$ one-touch fitting.

Note 2) Drain guide is G1/4.

* Optional parts are not assembled and are supplied apart at the time of shipment (except for options C, D and E).

Note 3) Required pressure gauge connection threads are NPT1/4.

* When more than one specification are required, they are indicated in alphanumeric order.

Note 4) The only difference from the standard specifications is the adjusting spring for the regulator. It does not restrict the setting of 0.2MPa or greater.

Note 5) Without a valve function

Note 6) For NPT thread type. According to the new Measurement Law, this product is for overseas use only. (The SI unit type is provided for use in Japan.)

Accessory/Optional specification combinations

◎: Combination available ◻: Combination not available △: Available only with NPT thread

| Accessory/Optional specifications | Combination | Symbol | Accessory | | | | | Optional specification | | | | | | | | | |
|--|-------------------------------------|--------|-----------|---|---|---|---|------------------------|---|---|---|---|---|---|---|---|---|
| | | | B | C | D | E | G | 1 | 2 | 6 | 8 | J | N | R | W | Z | |
| Accessories | With bracket | B | ◻ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | △ |
| | Float type auto drain (N.C.) | C | ◎ | ◻ | ◻ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◻ | ◎ | ◎ | ◻ | △ | |
| | Float type auto drain (N.O.) | D | ◎ | ◻ | ◻ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◻ | △ | | |
| | Square embedded type pressure gauge | E | ◎ | ◎ | ◎ | ◻ | ◻ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | △ | |
| | Round pressure gauge | G | ◎ | ◎ | ◎ | ◻ | ◻ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | △ | |
| Optional specifications | 0.02 to 0.2MPa setting | -1 | ◎ | ◎ | ◎ | ◎ | ◎ | ◻ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | △ | |
| | Metal bowl | -2 | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◻ | ◻ | ◻ | ◎ | ◎ | ◎ | ◻ | △ | |
| | Nylon bowl | -6 | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◻ | ◻ | ◻ | ◎ | ◎ | ◎ | ◎ | △ | |
| | Metal bowl with level gauge | -8 | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◻ | ◻ | ◻ | ◎ | ◎ | ◎ | ◻ | △ | |
| | Drain guide 1/4 | -J | ◎ | ◻ | ◻ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◻ | ◎ | ◎ | ◻ | △ | |
| | Non-relieving type | -N | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◻ | ◎ | ◎ | △ | |
| | Flow direction: Right to left | -R | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◻ | ◎ | △ | |
| Drain cock with barb fitting: $\phi 6 \times \phi 4$ nylon tubing | -W | ◎ | ◻ | ◻ | ◻ | ◻ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◻ | △ | | |
| Name plate, caution plate for bowl, and pressure gauge in imperial units (PSI, °F) | -Z | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | ◻ | | |

Series AW60

Standard specifications

| Specifications | Model | AW60 (K) |
|---|-------|--|
| Port size | | 3/4 · 1 |
| Fluid | | Air |
| Proof pressure | | 1.5 MPa |
| Maximum operating pressure | | 1.0 MPa |
| Set pressure range ^{Note 1)} | | 0.05 to 0.85 MPa |
| Pressure gauge port size ^{Note 2)} | | 1/4 |
| Relief pressure | | Set pressure + 0.05 MPa [at relief flow rate of 0.1 ℓ/min (ANR)] |
| Ambient and fluid temperature | | -5 to 60°C (with on freezing) |
| Nominal filtration rating | | 5 μm |
| Drain capacity | | 45 cm ³ |
| Bowl material | | Polycarbonate |
| Bowl guard | | Standard |
| Construction | | Relieving type |
| Weight | | 2.0 kg |



Note 1) When using a model with the check valve function (K), set the inlet pressure at least 0.05 MPa higher than the set pressure.

Note 2) Pressure gauge connection threads are not required for a regulator with square embedded type pressure gauge.

Accessory part no.

| Accessory | | Applicable model | AW60 (K) |
|--|--------|---|-------------|
| Bracket assembly ^{Note 1)} | | | AW60P-270AS |
| Pressure gauge ^{Note 2)} | 1.0MPa | Round | G46-10-□02 |
| | | Square embedded type ^{Note 3)} | GC3-10AS |
| | 0.2MPa | Round | G46-2-□02 |
| | | Square embedded type ^{Note 3)} | GC3-2AS |
| Float type auto drain ^{Note 4)} | N.O. | | AD48 |
| | N.C. | | AD47 |



Note 1) Assembly includes a bracket and set nuts (2 nuts).

Note 2) □ in part numbers for a round pressure gauge indicates connection thread type. No indication is necessary for R; however, indicate N for NPT.

Contact SMC regarding the NPT connection thread and pressure gauge supply for PSI unit specifications.

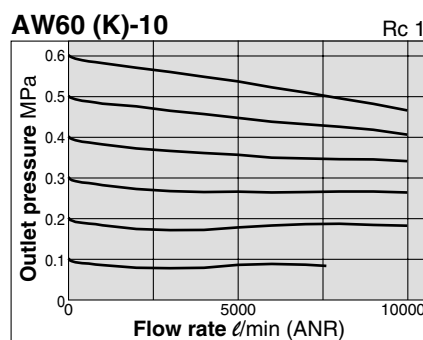
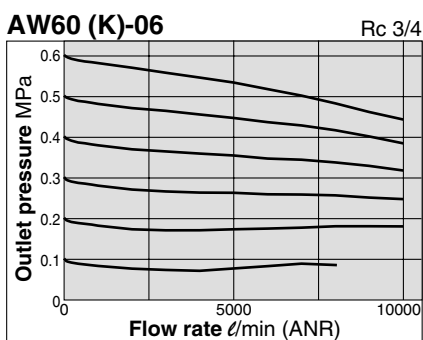
Note 3) Includes on an O-ring and 2 mounting screws.

Note 4) Minimum operating pressure: N.O. type-0.1MPa
N.C. type-0.15MPa

Contact SMC regarding the specifications for PSI unit and °F.

Flow Characteristics (Representative values)

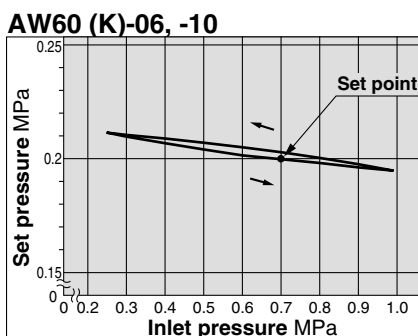
Condition: Inlet pressure 0.7MPa



Pressure Characteristics

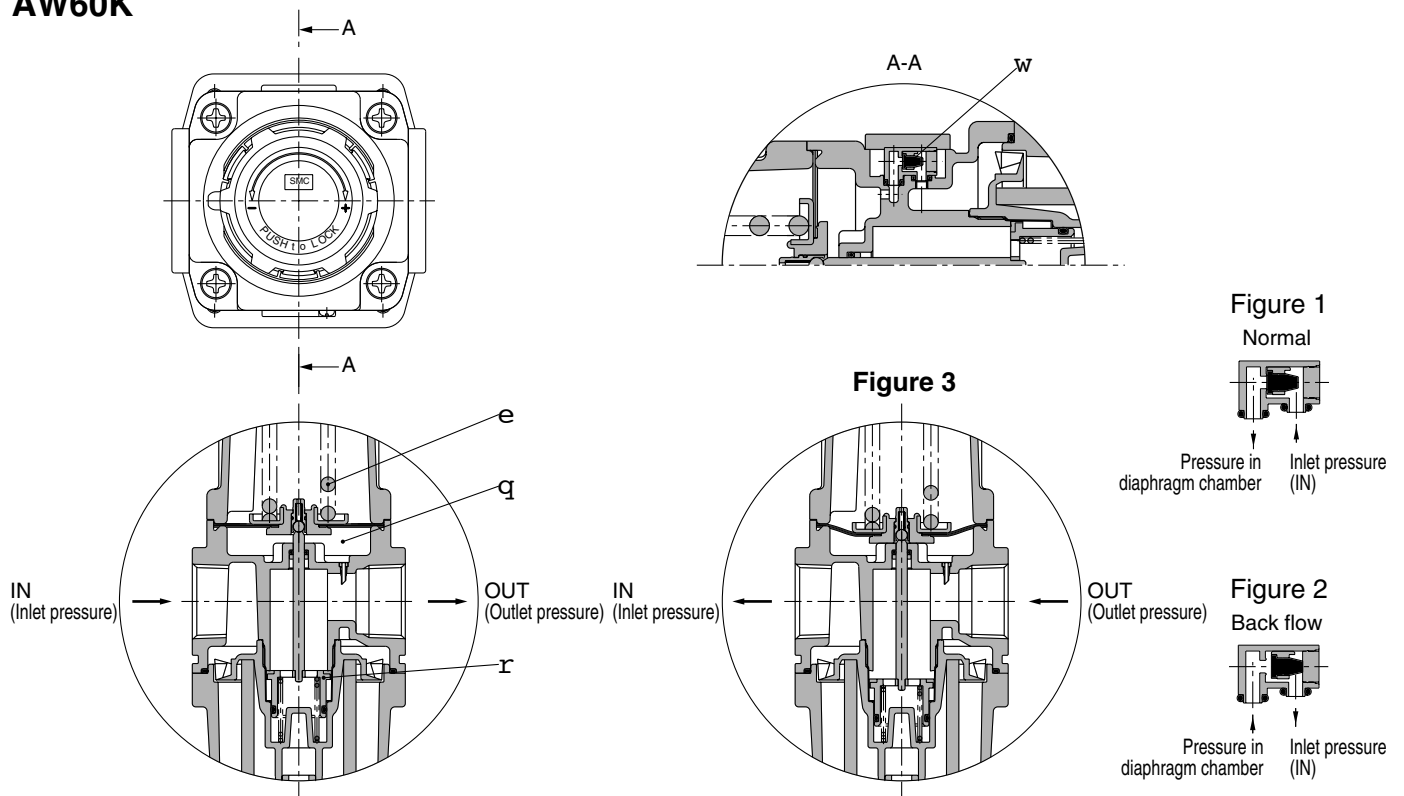
(Representative value)

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



Operating Principle

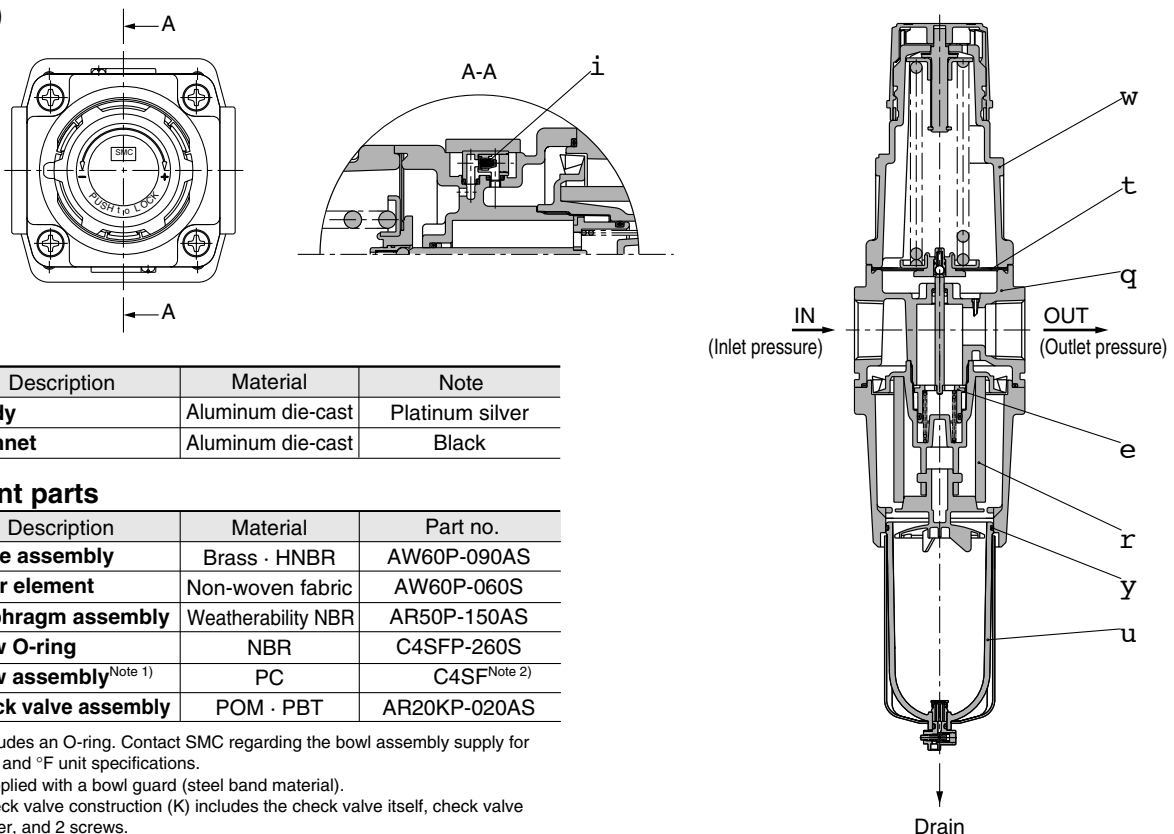
AW60K



When the inlet pressure (P1) is higher than the outlet pressure, the check valve *w* closes and operates as a normal regulator (Figure 1). When the inlet pressure (P1) is shut off and released, the check valve *w* opens and the pressure in the diaphragm chamber *q* is released into the inlet side (Figure 2). This lowers the pressure in the diaphragm chamber *q*, and the force generated by pressure regulator spring *e* lifts the diaphragm. Valve *r* opens through the stem, and the outlet pressure is released to the inlet side (Figure 3).

Construction

AW60 (K)



Parts list

| No. | Description | Material | Note |
|-----|---------------|-------------------|-----------------|
| 1 | Body | Aluminum die-cast | Platinum silver |
| 2 | Bonnet | Aluminum die-cast | Black |

Replacement parts

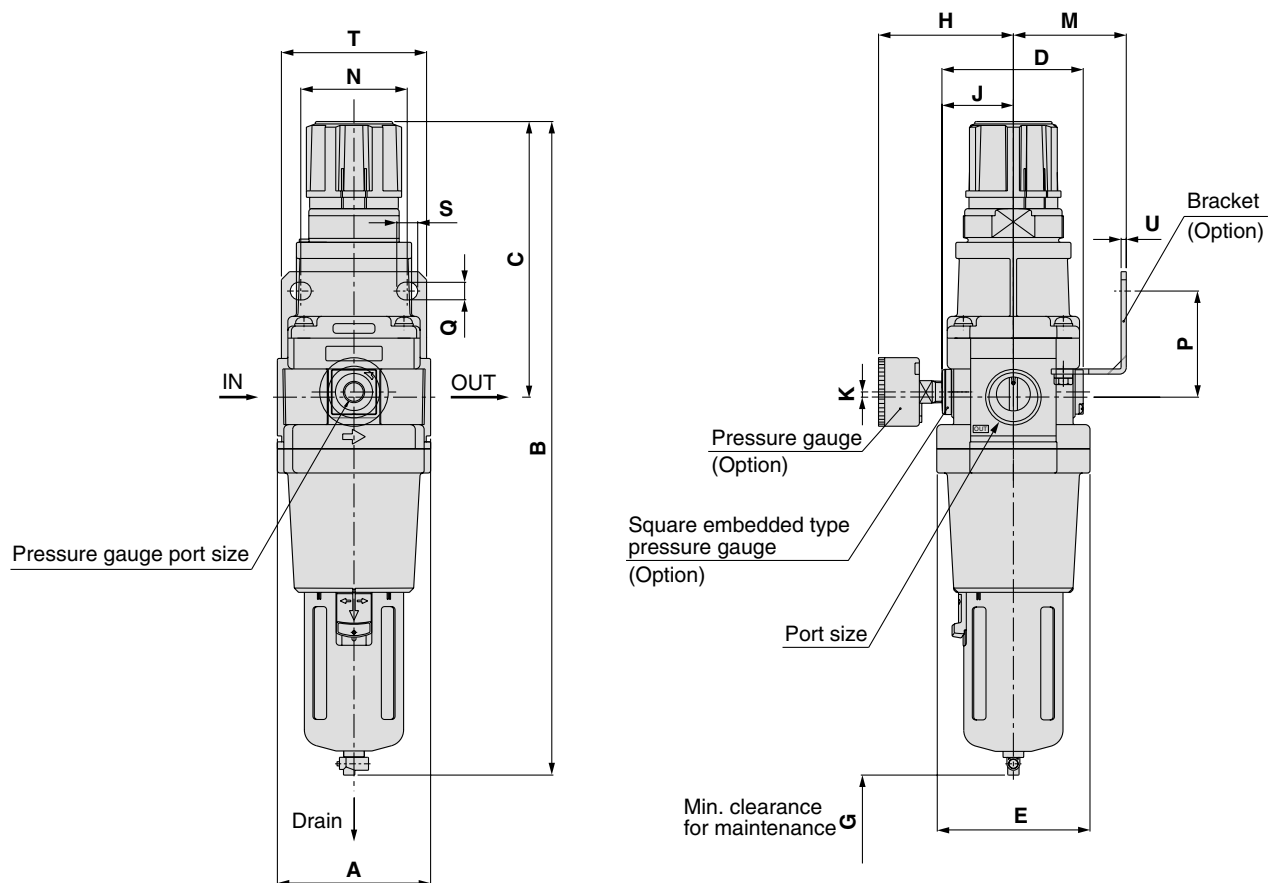
| No. | Description | Material | Part no. |
|----------------------|---|--------------------|-------------------------|
| 3 | Valve assembly | Brass · HNBR | AW60P-090AS |
| 4 | Filter element | Non-woven fabric | AW60P-060S |
| 5 | Diaphragm assembly | Weatherability NBR | AR50P-150AS |
| 6 | Blow O-ring | NBR | C4SFP-260S |
| 7 | Blow assembly ^{Note 1)} | PC | C4SF ^{Note 2)} |
| 8 ^{Note 3)} | Check valve assembly | POM · PBT | AR20KP-020AS |

- Note 1) Includes an O-ring. Contact SMC regarding the bowl assembly supply for PSI and °F unit specifications.
 Note 2) Supplied with a bowl guard (steel band material).
 Note 3) Check valve construction (K) includes the check valve itself, check valve cover, and 2 screws.

Series AW60

Dimensions

AW60 (K)



| Applicable model | AW60 (K) | | | | |
|---------------------------------------|---|------------|-----------------------------|------------------|------------------------------|
| Accessory/ Optional specifications | With auto drain (N.O./N.C.) | Metal bowl | Metal bowl with level gauge | With drain guide | Drain cock with barb fitting |
| Dimensions | <p>N.O.: Black N.C.: Gray ø10 One-touch fitting</p> | | | | |

| Model | Port size | Standard specification | | | | | | Accessory specification | | | | | | | | | | |
|-----------------|-----------|------------------------|-----|-----|----|----|----|-------------------------|------|------|-----------------------|----|----|----|----|-----------------|-----|-----|
| | | A | B | C | D | E | G | With pressure gauge | | | Bracket mounting size | | | | | With auto drain | | |
| | | A | B | C | D | E | G | H | J | K | M | N | P | Q | S | T | U | B |
| AW60 (K) | 3/4 · 1 | 95 | 405 | 171 | 88 | 95 | 20 | 84 | 44.5 | 3.25 | 70 | 66 | 66 | 11 | 13 | 90 | 3.2 | 445 |

| Model | Optional specification | | | | |
|-----------------|------------------------|-----------------------------|------------------|-------------------|---|
| | Metal bowl | Metal bowl with level gauge | With drain guide | With barb fitting | |
| | | B | B | B | B |
| AW60 (K) | 418 | 438 | 412 | 413 | |