

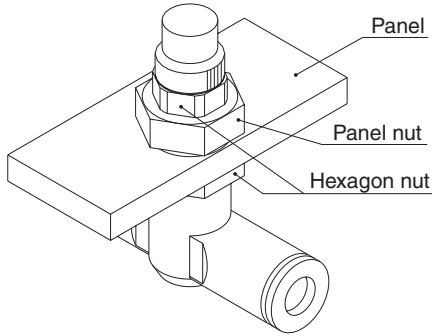
Speed Controller with One-touch Fittings Panel Mount Type

Series AS 1F-3 In-line Type

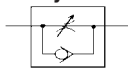
**Panel mount thickness:
35 mm at the maximum**

Easy installation and removal

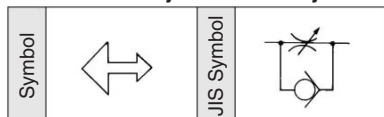
Installment of hexagon nuts on panel nuts up and down in two locations enables user to mount or remove it depending upon the situation.



JIS Symbol



Flow Direction Symbols on Body



Model

| Model | Applicable tubing O.D. | | | | | | | | | | | | Applicable cylinder bore size (mm) | |
|---------|------------------------|---|---|---|----|----|-----------|-------|-------|------|-------|------|------------------------------------|----------------|
| | Metric size | | | | | | Inch size | | | | | | | |
| | 3.2 | 4 | 6 | 8 | 10 | 12 | 1/8" | 5/32" | 3/16" | 1/4" | 5/16" | 3/8" | | 1/2" |
| AS1001F | ● | ● | ● | | | | ● | ● | ● | ● | | | | 6, 10, 16, 20 |
| AS2001F | | ● | ● | | | | | ● | ● | ● | | | | 20, 25, 32 |
| AS2051F | | | ● | ● | | | | | ● | ● | ● | | | 20, 25, 32, 40 |
| AS3001F | | | ● | ● | ● | ● | | | ● | ● | ● | | | 40, 50, 63 |
| AS4001F | | | | | ● | ● | | | | | | ● | ● | 63, 80, 100 |

Specifications

| | |
|---|---|
| Fluid | Air |
| Proof pressure | 1.5 MPa |
| Max. operating pressure | 1 MPa |
| Min. operating pressure | 0.1 MPa |
| Ambient and fluid temperature | -5 to 60°C (No freezing) ⁽¹⁾ |
| Number of needle rotations ⁽²⁾ | 10 turns (8 turns) |
| Applicable tubing material | Nylon, Soft nylon, Polyurethane |

Note 1) In the case of AS1001F type

Note 2) Use caution regarding the max. operating pressure when soft nylon or polyurethane tubing is used. (Refer to pages 15-6-3 to 15-6-5 for details.)

Flow Rate and Effective Area

| Model | AS1001F | AS2001F | AS2051F | AS3001F | AS4001F |
|-----------------------------|---|----------|-----------------|------------------|-----------------|
| Tubing O.D. | Metric size ø3.2, ø4, ø6 | ø4 | ø6 | ø6 | ø8 |
| | Inch size ø1/8" ø5/32" ø3/16", ø1/4" | ø5/32" | ø3/16" ø1/4" | ø3/16" ø5/16" | ø1/4" ø5/16" |
| Controlled flow (Free flow) | Flow rate (l/min(ANR)) | 100 | 130 | 230 | 290 |
| | Effective area (mm ²) | 1.5 | 2 | 3.5 | 4.5 |
| | | ø6 | ø8 | ø6 | ø8 |
| | | ø10, ø12 | ø10 | ø12 | ø10 |
| | | ø10 | ø12 | ø3/8" | ø3/8" |
| | | ø10 | ø12 | ø3/8" | ø1/2" |
| | | 1050 | 1390 | 14 | 21 |
| | | 16 | 21 | | |

Note) Flow rate values are measured at 0.5 MPa and 20°C.

How to Order

AS 200 1 F - 06 - 3

Body size

| | |
|-----|--------------|
| 100 | M5 standard |
| 200 | 1/8 standard |
| 205 | 1/4 standard |
| 300 | 3/8 standard |
| 400 | 1/2 standard |

Panel mount type

Applicable tubing O.D.

| Metric size | Inch size |
|-------------|-----------|
| 23 | ø3.2 * |
| 04 | ø4 |
| 06 | ø6 |
| 08 | ø8 |
| 10 | ø10 |
| 12 | ø12 |
| 01 | ø1/8" |
| 03 | ø5/32" |
| 05 | ø3/16" |
| 07 | ø1/4" |
| 09 | ø5/16" |
| 11 | ø3/8" |
| 13 | ø1/2" |

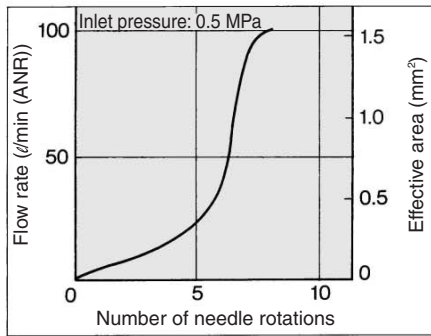
* Use ø1/8" tube.

With One-touch fittings

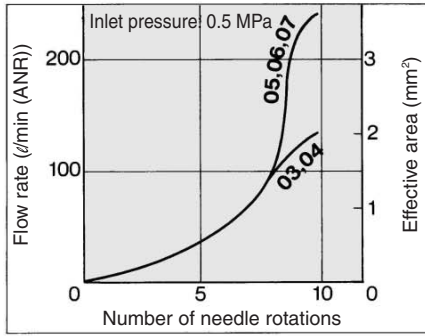
Speed Controller with One-touch Fittings Panel Mount Type, In-line Type

Needle Valve/Flow Characteristics

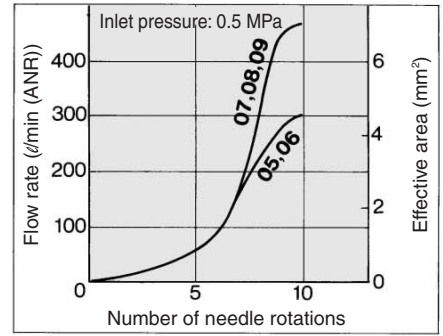
AS1001F



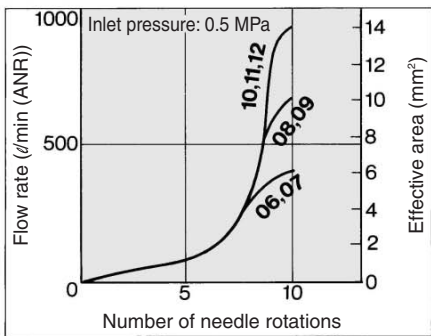
AS2001F



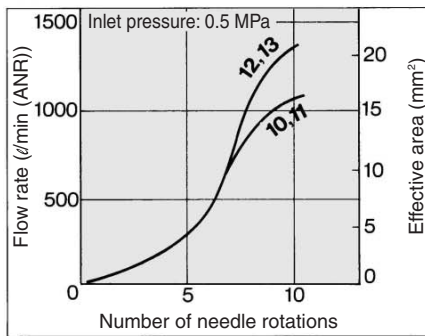
AS2051F



AS3001F



AS4001F

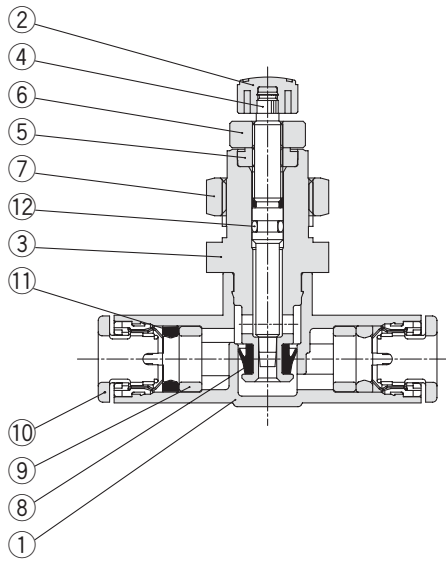


⚠ Caution

Be sure to read before handling. Refer to pages 15-18-3 to 15-18-4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, and refer to pages 15-8-6 to 15-8-8 for Precautions on every series.

- AS
- ASP
- ASN
- AQ
- ASV
- AK
- ASS
- ASR
- ASF

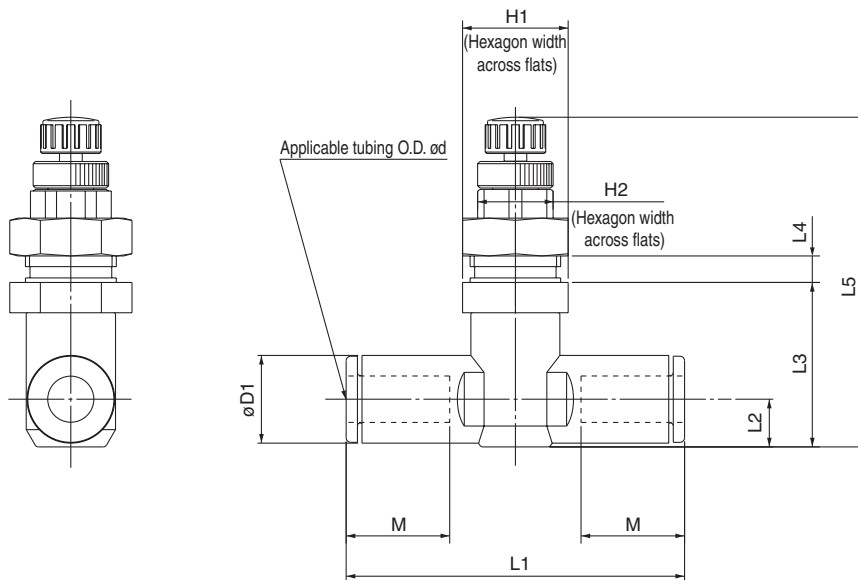
Construction



| No. | Description | Material | Note |
|-----|--------------|-----------------------|---------------------------|
| ① | Body A | PBT | |
| ② | Handle | PBT | |
| ③ | Body B | Brass | Electroless nickel plated |
| ④ | Needle | Brass | Electroless nickel plated |
| ⑤ | Needle guide | Brass | Electroless nickel plated |
| ⑥ | Lock nut | Brass | Electroless nickel plated |
| ⑦ | Panel nut | Brass | Electroless nickel plated |
| ⑧ | U seal | HNBR | |
| ⑨ | Spacer | PBT ^(Note) | |
| ⑩ | Cassette | POM, Stainless steel | |
| ⑪ | Packing | NBR | |
| ⑫ | O-ring | NBR | |

(Note) AS1001F(ø3.2, ø4, ø6, ø1/8", ø5/32", ø1/4"), AS2001F(ø4, ø6, ø5/32") are made of POM. ø3/16", ø3/8", ø1/2" are made of brass (Electroless nickel plated).

Dimensions



Metric Size

| Model | d | D1 | H1 | H2 | L1 | L2 | L3 | L4 Max. | L5 | | M | Panel-cut dimensions | |
|--------------|-----|------|----|----|------|------|------|---------|------|------|------|----------------------|------|
| | | | | | | | | | Max. | Min. | | | |
| AS1001F-23-3 | 3.2 | 8.4 | 12 | 8 | 38 | 4.5 | 16.8 | 3.5 | 37.6 | 34.4 | 12.7 | 10.5 | |
| AS1001F-04-3 | 4 | 9.3 | | | 39.2 | 5.2 | 17.4 | | 38.2 | 35 | | | |
| AS1001F-06-3 | 6 | 11.6 | | | 40.7 | 6.2 | 18.5 | | 39.3 | 36.1 | | | 13.5 |
| AS2001F-04-3 | 4 | 9.3 | 14 | 10 | 40.7 | 5.2 | 20.7 | 3.5 | 48 | 42.5 | 12.7 | 12.5 | |
| AS2001F-06-3 | 6 | 11.6 | | | 44.8 | 6.3 | 21.8 | | 49.1 | 43.6 | | | 13.5 |
| AS2051F-06-3 | 6 | 12.8 | 17 | 13 | 53.2 | 6.7 | 25.7 | 3.5 | 53.5 | 48.1 | 17 | 15.5 | |
| AS2051F-08-3 | 8 | 15.2 | | | 59.8 | 8.1 | 27 | | 54.8 | 49.4 | | | 18 |
| AS3001F-06-3 | 6 | 12.8 | 21 | 16 | 59 | 7.4 | 31.3 | 3.5 | 60.1 | 54.7 | 17 | 18.5 | |
| AS3001F-08-3 | 8 | 15.2 | | | 64.4 | 8.2 | 32.1 | | 60.9 | 55.5 | | | 18 |
| AS3001F-10-3 | 10 | 18.5 | | | 71.6 | 9.8 | 33.7 | | 62.5 | 57.1 | | | 21 |
| AS3001F-12-3 | 12 | 20.9 | | | 76 | 11 | 34.9 | | 63.7 | 58.3 | | | 22 |
| AS4001F-10-3 | 10 | 18.5 | 27 | 21 | 82 | 11.3 | 35 | 3.5 | 69.3 | 61 | 21 | 24.5 | |
| AS4001F-12-3 | 12 | 20.9 | | | 76 | 11 | 34.9 | | 63.7 | 58.3 | | | 22 |

Inch Size

| Model | d | D1 | H1 | H2 | L1 | L2 | L3 | L4 Max. | L5 | | M | Panel-cut dimensions | |
|--------------|-------|------|----|----|------|------|------|---------|------|------|------|----------------------|------|
| | | | | | | | | | Max. | Min. | | | |
| AS1001F-01-3 | 1/8" | 8.4 | 12 | 8 | 38 | 4.5 | 16.8 | 3.5 | 37.6 | 34.4 | 12.7 | 10.5 | |
| AS1001F-03-3 | 5/32" | 9.3 | | | 39.2 | 5.2 | 17.4 | | 38.2 | 35 | | | |
| AS1001F-05-3 | 3/16" | 11.4 | | | 48.7 | 6.2 | 18.5 | | 39.3 | 36.1 | | | 16.5 |
| AS1001F-07-3 | 1/4" | 12 | | | 40.7 | 6.2 | 18.5 | | 39.3 | 36.1 | 13.7 | | |
| AS2001F-03-3 | 5/32" | 9.3 | 14 | 10 | 40.7 | 5.2 | 20.7 | 3.5 | 48 | 42.5 | 12.7 | 12.5 | |
| AS2001F-05-3 | 3/16" | 11.4 | | | 50 | 6.2 | 21.6 | | 48.9 | 43.4 | | | 16.5 |
| AS2001F-07-3 | 1/4" | 13.2 | | | 52.2 | 7.1 | 22.5 | | 49.8 | 44.3 | 17 | | |
| AS2051F-05-3 | 3/16" | 11.4 | 17 | 13 | 52.2 | 6.2 | 25.2 | 3.5 | 53 | 47.6 | 16.5 | 15.5 | |
| AS2051F-07-3 | 1/4" | 13.2 | | | 54.4 | 7.1 | 26 | | 53.8 | 48.4 | | | 17 |
| AS2051F-09-3 | 5/16" | 15.2 | | | 59.8 | 8.1 | 27 | | 54.8 | 49.4 | 18 | | |
| AS3001F-07-3 | 1/4" | 13.2 | 21 | 16 | 59 | 7.4 | 31.3 | 3.5 | 60.1 | 54.7 | 17 | 18.5 | |
| AS3001F-09-3 | 5/16" | 15.2 | | | 64.4 | 8.2 | 32.1 | | 60.9 | 55.5 | | | 18 |
| AS3001F-11-3 | 3/8" | 17.2 | | | 70.8 | 9.5 | 33.3 | | 62.1 | 56.7 | | | 21 |
| AS4001F-11-3 | 3/8" | 17.9 | | | 76.9 | 10.3 | 34.9 | | 69.2 | 60.9 | | | 21 |
| AS4001F-13-3 | 1/2" | 21.7 | 27 | 21 | 83.1 | 11.6 | 36.3 | 3.5 | 70.6 | 62.3 | 22 | 24.5 | |