

Stainless Steel Speed Controller (Elbow Type) Series ASG

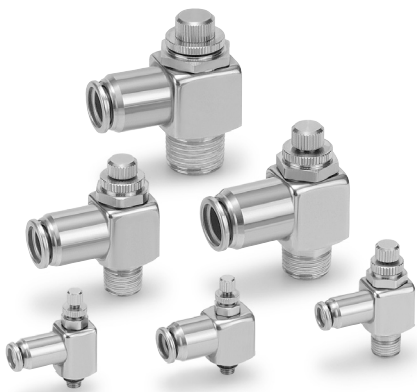
Material:

Stainless steel 316

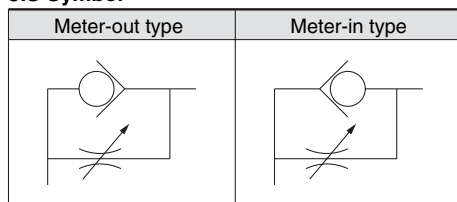
(Sealant: Special FKM
 (Seat ring: Stainless steel 303))

Applicable tubing materials

- FEP
- PFA
- Nylon
- Soft nylon
- Polyurethane
- Polyolefin



JIS Symbol



Conforms to Food Sanitation Laws
 (Material of the component parts meets the apparatus
 and container packaging standards.)

Flow Rate and Effective Area

| Model | ASG22□F-M5 | ASG32□F-01 | ASG42□F-02 | ASG52□F-03 | ASG62□F-04 | | | | |
|------------------------|-----------------------------------|------------|-------------|--------------|------------|-----|-----|-----|------|
| Tubing O.D. (mm) | ø4, ø6 | ø4, ø6, ø8 | ø6, ø8, ø10 | ø8, ø10, ø12 | ø12 | | | | |
| Controlled (free) flow | Flow rate (l/min (ANR)) | 100 | 180 | 230 | 390 | 460 | 790 | 920 | 1580 |
| | Effective area (mm ²) | 1.5 | 2.7 | 3.5 | 6 | 7 | 12 | 14 | 24 |

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

Model

| Elbow type | Port size | Applicable tubing O.D. (mm) | | | | | Applicable cylinder bore size (mm) |
|------------|-----------|-----------------------------|---|---|----|----|------------------------------------|
| | | 4 | 6 | 8 | 10 | 12 | |
| ASG22□F-M5 | M5 x 0.8 | ● | ● | | | | 6, 10, 16, 20 |
| ASG32□F-01 | R1/8 | ● | ● | ● | | | 20, 25, 32 |
| ASG42□F-02 | R1/4 | | ● | ● | ● | | 20, 25, 32, 40 |
| ASG52□F-03 | R3/8 | | | ● | ● | ● | 40, 50, 63 |
| ASG62□F-04 | R1/2 | | | | | ● | 63, 80, 100 |

Specifications

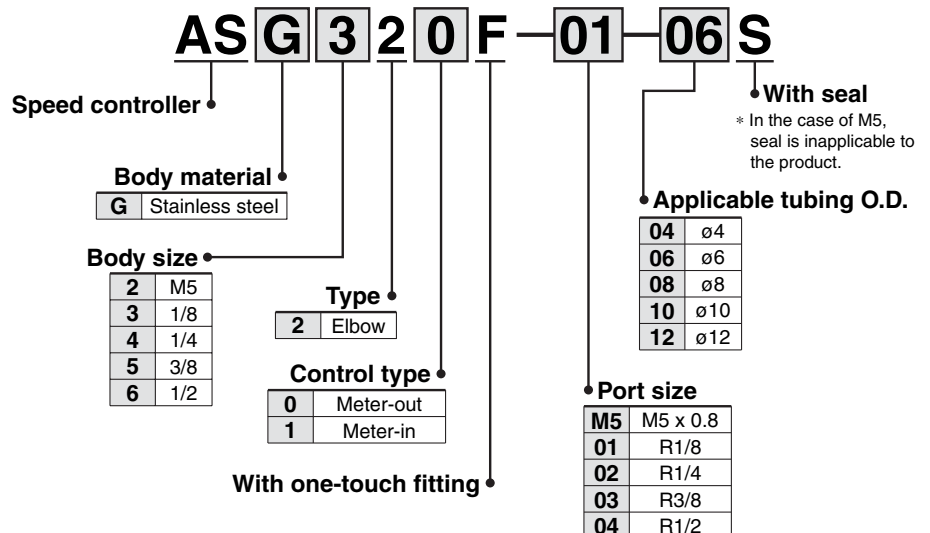
| | |
|-------------------------------|---|
| Fluid | Air |
| Proof pressure | 1.5 MPa |
| Max. operating pressure | 1 MPa |
| Min. operating pressure | 0.1 MPa |
| Ambient and fluid temperature | -5 to 60°C (No freezing) |
| Number of needle rotations | 10 turns (8 turns ^{Note 1)}) |
| Applicable tubing material | FEP, PFA, Nylon, Soft nylon, Polyurethane ^{Note 3)} , Polyolefin |

Note 1) In case of ASG22□F-M5

Note 2) Please be cautious of the max. operating pressure when soft nylon or polyurethane tubing is used.

Note 3) When polyurethane tubing is used, please use an inner sleeve.

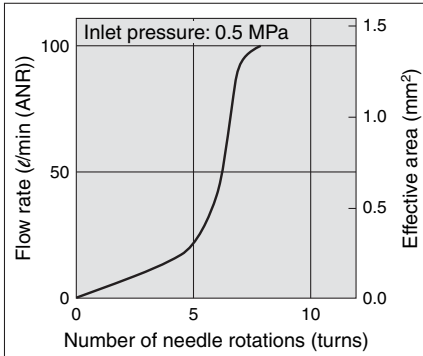
How to Order



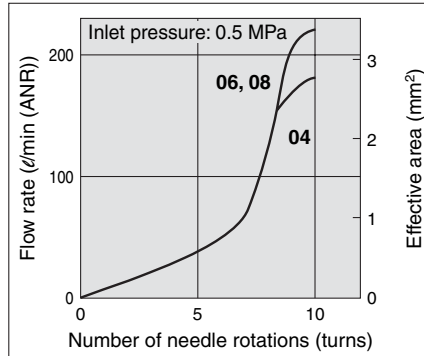
Series ASG

Needle Valve: Flow Characteristics

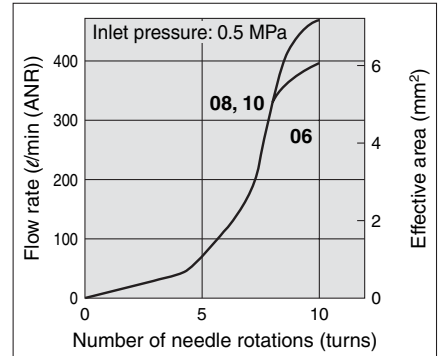
ASG220F-M5
ASG221F-M5



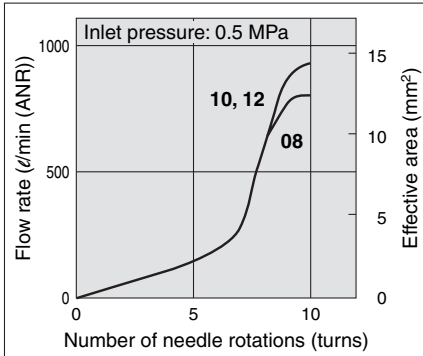
ASG320F-01
ASG321F-01



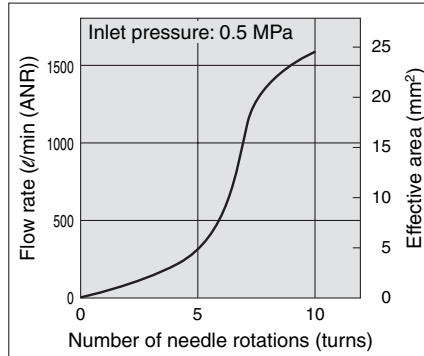
ASG420F-02
ASG421F-02



ASG520F-03
ASG521F-03



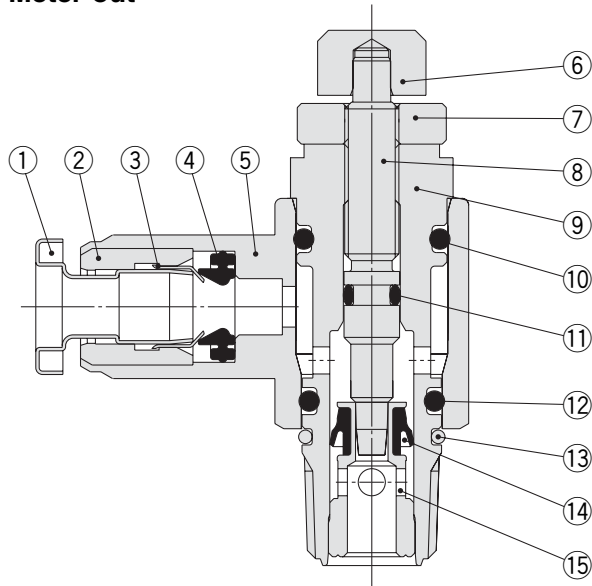
ASG620F-04
ASG621F-04



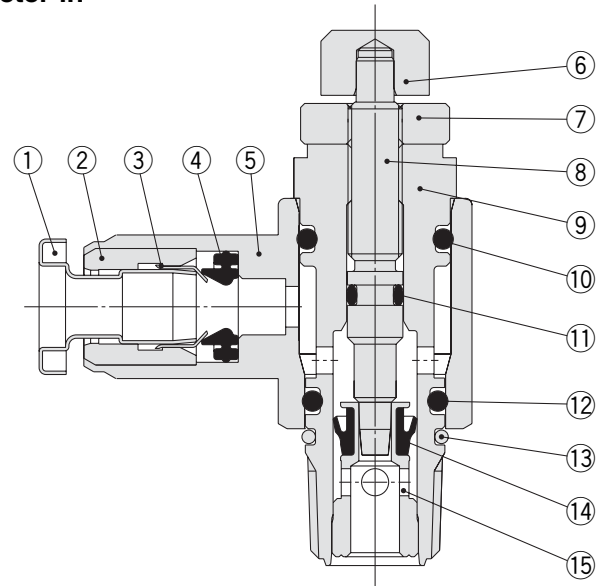
Construction

Elbow type

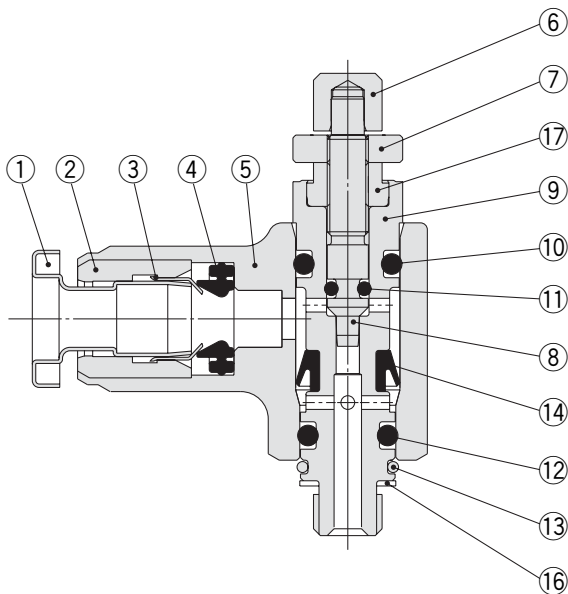
Meter-out



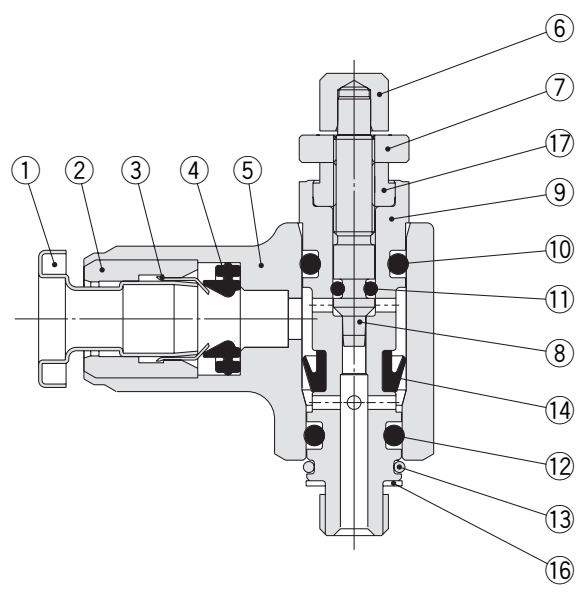
Meter-in



M5 port



M5 port



Component Parts

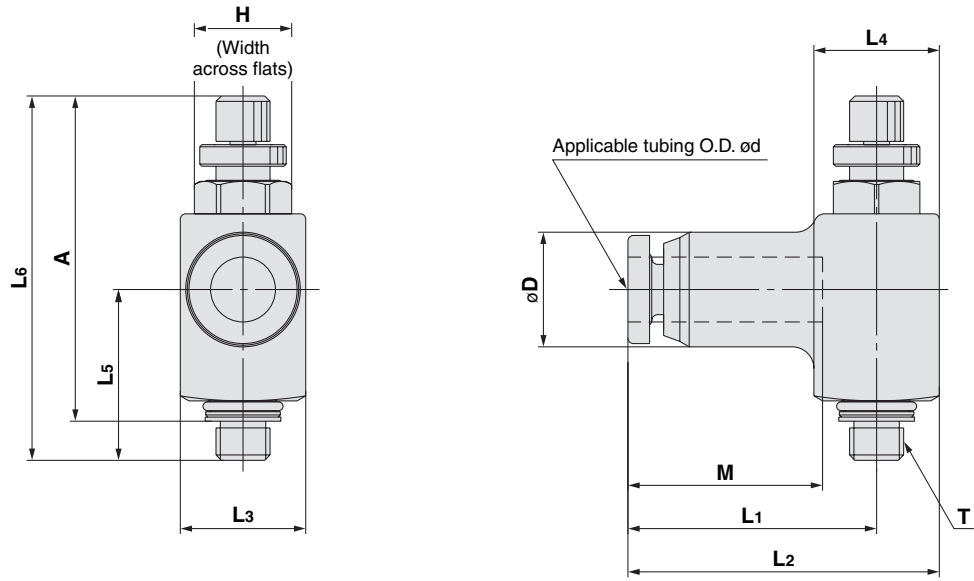
| No. | Description | Material |
|-----|----------------|---------------------|
| 1 | Release button | Stainless steel 316 |
| 2 | Guide | Stainless steel 316 |
| 3 | Chuck | Stainless steel 316 |
| 4 | Seal | Special FKM |
| 5 | Body A | Stainless steel 316 |
| 6 | Handle | Stainless steel 316 |
| 7 | Lock nut | Stainless steel 316 |
| 8 | Needle | Stainless steel 316 |
| 9 | Body B | Stainless steel 316 |

| No. | Description | Material |
|-----|--------------|----------------------------------|
| 10 | O-ring | Special FKM |
| 11 | O-ring | Special FKM |
| 12 | O-ring | Special FKM |
| 13 | Ring | Stainless steel 316 |
| 14 | U-seal | FKM |
| 15 | Seat ring | Stainless steel 303 |
| 16 | Gasket | Stainless steel 316, Special FKM |
| 17 | Needle guide | Stainless steel 316 |

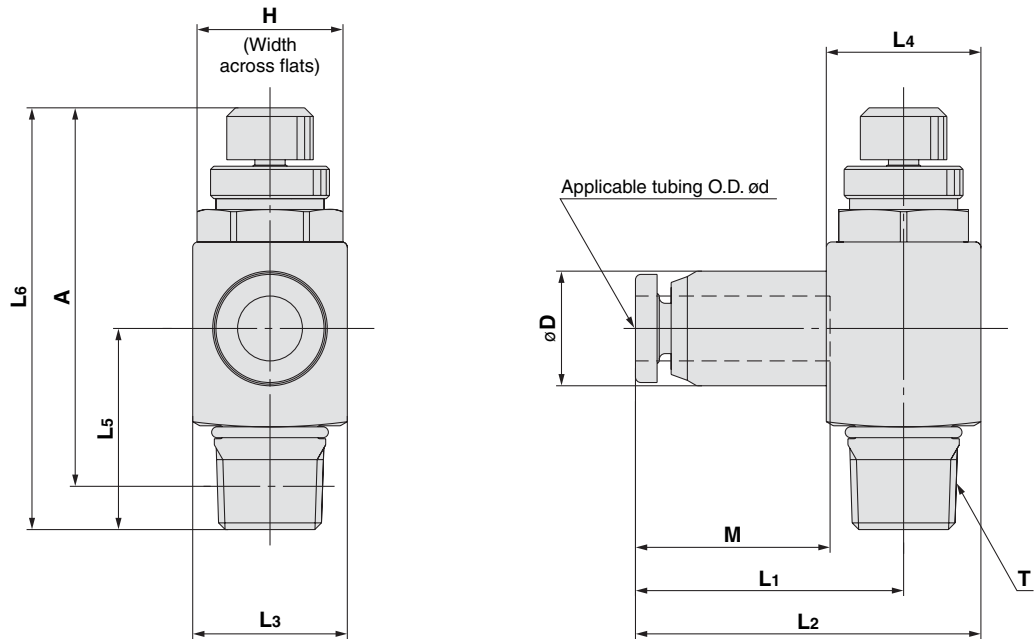
Series ASG

Dimensions

ASG22□F-M5



ASG32□F-01 ASG42□F-02 ASG52□F-03 ASG62□F-04



| Model | Applicable tubing O.D. ød | T | H | D | L1 | L2 | L3 | L4 | L5 | L6 | | A ^{Note)} | | M | Weight (g) |
|----------------|------------------------------|----------|----|------|------|------|------|----|------|------|------|--------------------|------|------|---------------|
| | | | | | | | | | | Max. | Min. | Max. | Min. | | |
| ASG22□F-M5-04 | 4 | M5 x 0.8 | 8 | 10.6 | 23 | 28.8 | 11.6 | | 15.8 | 37.2 | 33.7 | 33.7 | 30.2 | 18.2 | 25.2 |
| ASG22□F-M5-06 | 6 | | | 13 | 23.6 | 30.6 | | | | 14 | 18.8 | 34.4 | | | |
| ASG32□F-01-04S | 4 | 1/8 | 12 | 10.6 | 24.8 | 32 | 14.3 | | 18.6 | 44 | 39 | 40 | 35 | 18.2 | 39.4 |
| ASG32□F-01-06S | 6 | | | 13 | 25.4 | 32.6 | | | | 14.3 | 18.8 | 42.4 | | | |
| ASG32□F-01-08S | 8 | 1/4 | 17 | 15 | 27.5 | 35.5 | 16 | | 24.2 | 53.5 | 48.5 | 47.5 | 42.5 | 20.9 | 52.4 |
| ASG42□F-02-06S | 6 | | | 13 | 27.3 | 36.2 | | | | 17.9 | 18.8 | 76.8 | | | |
| ASG42□F-02-08S | 8 | 10 | 18 | 15 | 29.4 | 38.3 | 17.9 | | 26.5 | 58.7 | 53.7 | 52.7 | 47.7 | 20.9 | 80.3 |
| ASG42□F-02-10S | 10 | | | 18 | 31.9 | 41.4 | | | | 19 | 23 | 93.6 | | | |
| ASG52□F-03-08S | 8 | 3/8 | 19 | 15 | 31.1 | 41.7 | 21.2 | | 26.5 | 58.7 | 53.7 | 52.7 | 47.7 | 20.9 | 117.0 |
| ASG52□F-03-10S | 10 | | | 18 | 33.6 | 44.2 | | | | 21.2 | 23 | 124.9 | | | |
| ASG52□F-03-12S | 12 | 1/2 | 24 | 20.8 | 35.4 | 46.3 | 21.8 | | 30 | 65.9 | 58.4 | 54.3 | 46.8 | 24.8 | 137.8 |
| ASG62□F-04-12S | 12 | | | 20.8 | 37.6 | 50.5 | | | | 25.8 | 24.8 | 186.8 | | | |

Note) Reference thread dimensions after installation.