

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

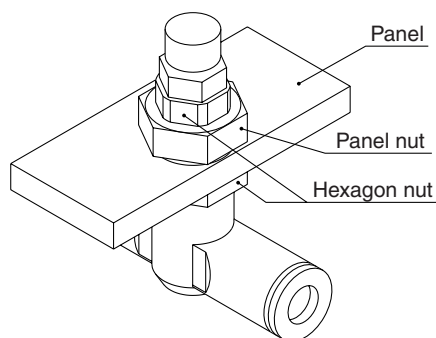
## Series AS□□□1F-3

RoHS

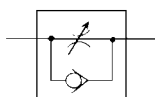
Panel mount thickness:  
3.5 mm at the maximum

### Easy installation and removal

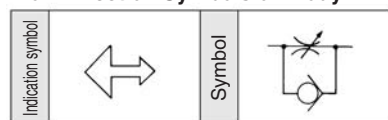
Installation of hexagon nuts on panel nuts up and down in two locations enables user to mount or remove it depending upon the situation.



### JIS Symbol



### Flow Direction Symbols on Body



**Made to Order**  
(Refer to page 435 for details.)

### 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)
Number of needle rotations	10 turns (8 turns <sup>(1)</sup> )
Applicable tubing material <sup>(2)</sup>	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 371 and 372 for details.)

Note 3) Brass parts are all electroless nickel plated.

### Flow Rate and Effective Area

Model	AS1001F	AS2001F	AS2051F	AS3001F	AS4001F						
Tubing O.D.	Metric size	ø3.2, ø4, ø6	ø4	ø6	ø6	ø8	ø6	ø8	ø10, ø12	ø10	ø12
	Inch size	ø1/8", ø5/32", ø3/16", ø1/4"	ø5/32"	ø3/16", ø1/4"	ø3/16"	ø1/4", ø5/16"	ø1/4"	ø5/16"	ø3/8"	ø3/8"	ø1/2"
Controlled flow (Free flow)	Flow rate (l/min)(ANR)	100	130	230	290	460	420	660	920	1050	1390
	Effective area (mm <sup>2</sup> )	1.5	2	3.5	4.5	7	6.5	10	14	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**

**Lock nut option**

Nil	Hexagon lock nut
J	Round lock nut

**Made to Order**  
Refer to page 435 for details.

**Applicable tubing O.D.** (Note) Refer to page 435 for details.

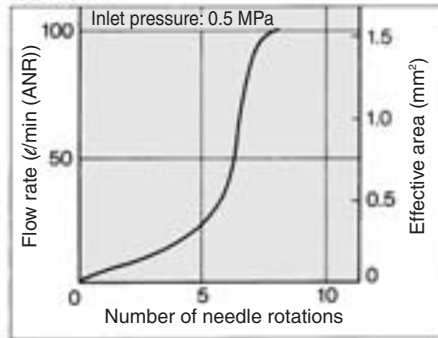
Metric size	Inch size
23	ø3.2*
01	ø1/8"
04	ø4
03	ø5/32"
06	ø6
05	ø3/16"
08	ø8
07	ø1/4"
10	ø10
09	ø5/16"
12	ø12
11	ø3/8"
13	ø1/2"

**With One-touch fittings**

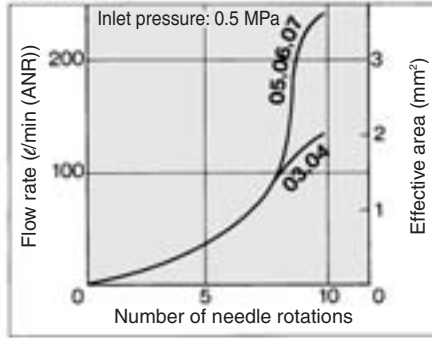
Note) For applicable tubing O.D. selection, refer to the Model.  
\* Use ø1/8" tube.

**Needle Valve/Flow Characteristics**

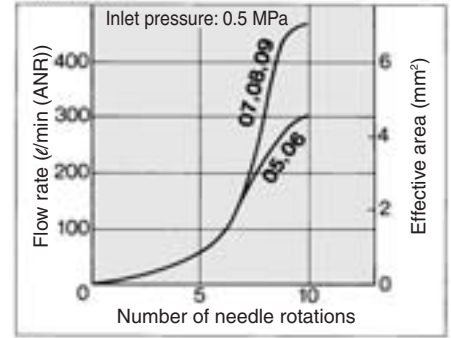
**AS1001F**



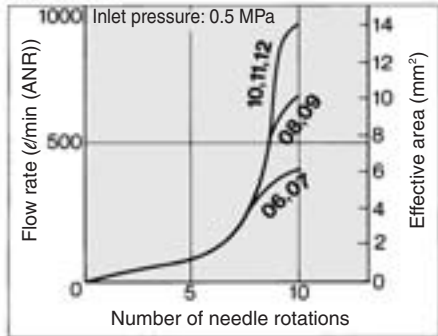
**AS2001F**



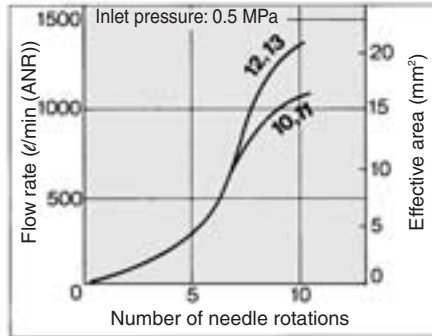
**AS2051F**



**AS3001F**



**AS4001F**



**⚠ Caution**

Be sure to read before handling.  
Refer to front matters 58 and 59 for Safety Instructions and pages 412 to 414 for Flow Control Equipment Precautions.

**Made to Order**



Lubricant: Vaseline

**X12**

Ex.) AS2001F-04-3-X12

Grease-free (Seal: Fluorine Coating) + Throttle Valve (Without Check Valve)

**X21**

Ex.) AS2001F-04-3-X21

Note) Not particle-free

Throttle Valve (Without Check Valve)

**X214**

Ex.) AS2001F-04-3-X214

AS

ASP

ASN

AQ

ASV

AK

VCHC

ASS

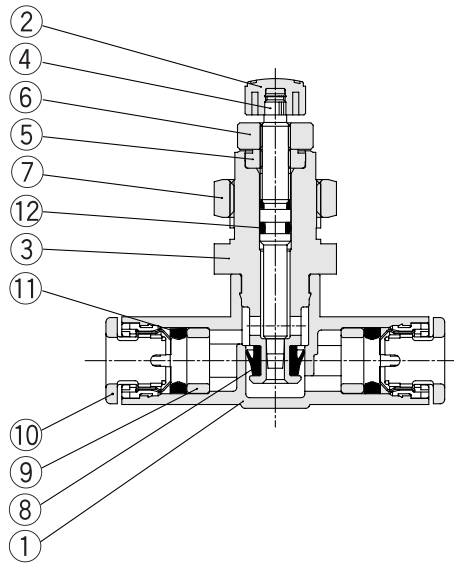
ASR  
ASQ

KE

TMH

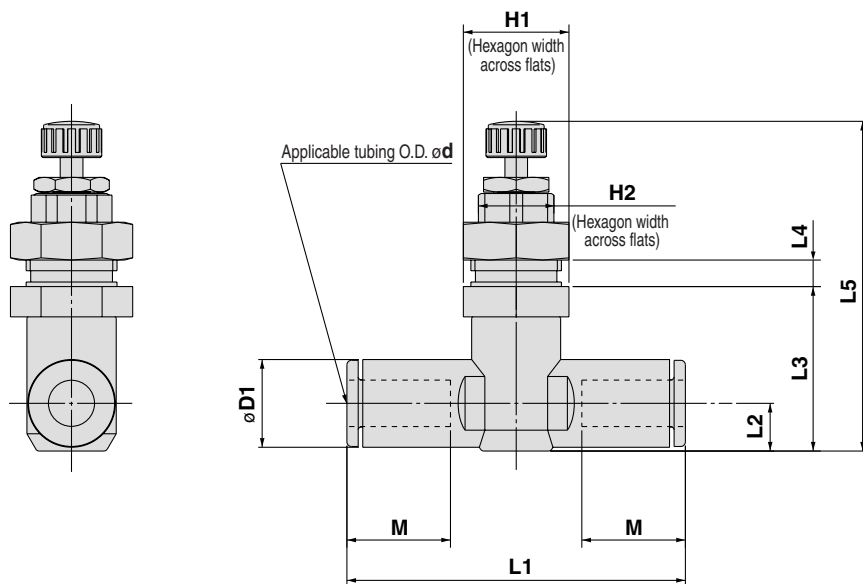
# Series AS□□□1F-3

## 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	Steel	Zinc chromated
7	Panel nut	Brass	Electroless nickel plated
8	U seal	HNBR	
9	Spacer	—	
10	Cassette	—	
11	Packing	NBR	
12	O-ring	NBR	

## Dimensions



### Metric Size

Model	d	D1	H1	H2	L1	L2	L3	L4 Max.	L5 <sup>(1)</sup>		M	Panel-out dimensions	Mass (g)
									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	18
AS1001F-04-3	4	9.3			39.2	5.2	17.4		38.2	35			19
AS1001F-06-3	6	11.6			40.7	6.2	18.5		39.3	36.1			20
AS2001F-04-3	4	9.3	14	10	40.7	5.2	20.7	3.5	48	42.5	12.7	12.5	28
AS2001F-06-3	6	11.6			44.8	6.3	21.8		49.1	43.6			29
AS2051F-06-3	6	12.8	17	13	53.2	6.7	25.7	3.5	53.5	48.1	17	15.5	49
AS2051F-08-3	8	15.2			59.8	8.1	27		54.8	49.4			54
AS3001F-06-3	6	12.8	21	16	59	7.4	31.3	3.5	60.1	54.7	17	18.5	85
AS3001F-08-3	8	15.2			64.4	8.2	32.1		60.9	55.5			88
AS3001F-10-3	10	18.5			71.6	9.8	33.7		62.5	57.1			99
AS3001F-12-3	12	20.9			76	11	34.9		63.7	58.3	22		100
AS4001F-10-3	10	18.5	27	21	77.7	11.3	35	3.5	69.3	61	21	24.5	167
AS4001F-12-3	12	20.9			82.1	36	70.3		62	22			171

Note 1) Reference dimensions

### Inch Size

Model	d	D1	H1	H2	L1	L2	L3	L4 Max.	L5 <sup>(1)</sup>		M	Panel-out dimensions	Mass (g)
									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	18
AS1001F-03-3	5/32"	9.3			39.2	5.2	17.4		38.2	35			19
AS1001F-05-3	3/16"	11.4			48.7	6.2	18.5		39.3	36.1			24
AS1001F-07-3	1/4"	12			40.7			21					
AS2001F-03-3	5/32"	9.3	14	10	40.7	5.2	20.7	3.5	48	42.5	12.7	12.5	28
AS2001F-05-3	3/16"	11.4			50	6.2	21.6		48.9	43.4			34
AS2001F-07-3	1/4"	13.2			52.2	7.1	22.5		49.8	44.3	17		37
AS2051F-05-3	3/16"	11.4	17	13	52.2	6.2	25.2	3.5	53	47.6	16.5	15.5	47
AS2051F-07-3	1/4"	13.2			54.4	7.1	26		53.8	48.4			49
AS2051F-09-3	5/16"	15.2			59.8	8.1	27		54.8	49.4	18		54
AS3001F-07-3	1/4"	13.2	21	16	59	7.4	31.3	3.5	60.1	54.7	17	18.5	84
AS3001F-09-3	5/16"	15.2			64.4	8.2	32.1		60.9	55.5			88
AS3001F-11-3	3/8"	17.2			70.8	9.5	33.3		62.1	56.7			95
AS4001F-11-3	3/8"	17.9	27	21	76.9	10.3	34.9	3.5	69.2	60.9	21	24.5	175
AS4001F-13-3	1/2"	21.7			83.1	11.6	36.3		70.6	62.3			22

Note 1) Reference dimensions