

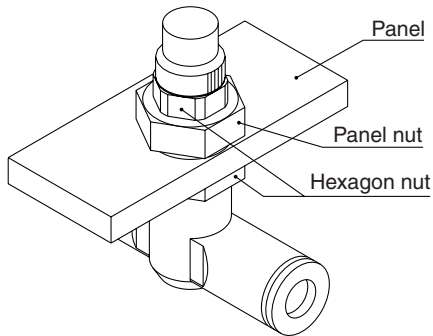
# Speed Controller with One-touch Fittings In-line Type/Panel Mount Type

## Series AS□□□1F-3

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.



### 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 <sup>(2)</sup>	10 turns (8 turns <sup>(1)</sup> )
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 371 and 372 for details.)

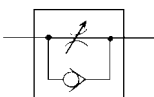
Note 3) Brass parts are all electroless nickel plated.

### Flow Rate and Effective Area

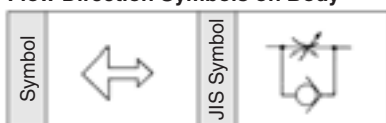
Model	AS1001F	AS2001F	AS2051F	AS3001F	AS4001F
Tubing O.D.	Metric size ø3.2, ø4, ø6	ø4	ø6	ø6	ø8
	Inch size ø1/8", ø5/32", ø3/16", ø1/4"	ø5/32"	ø3/16", ø1/4"	ø3/16"	ø1/4", ø5/16"
Controlled flow (Free flow)	Flow rate (l/min)(ANR)	100	130	230	290
	Effective area (mm <sup>2</sup> )	1.5	2	3.5	4.5
		7	6.5	10	14
		16	21	1050	1390

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

### JIS Symbol



### Flow Direction Symbols on Body



Made to Order

(Refer to page 435 for details.)

### 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.

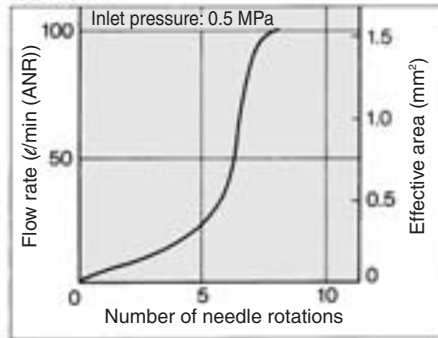
With One-touch fittings

Made to Order

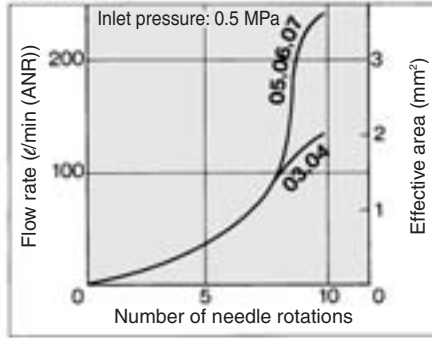
Refer to page 435 for details.

**Needle Valve/Flow Characteristics**

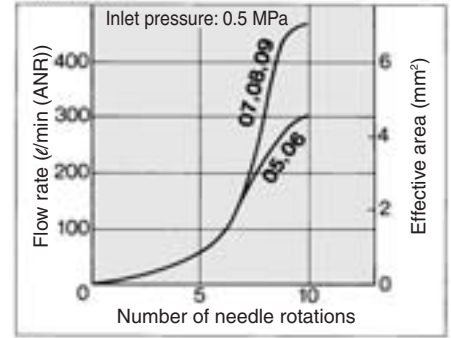
**AS1001F**



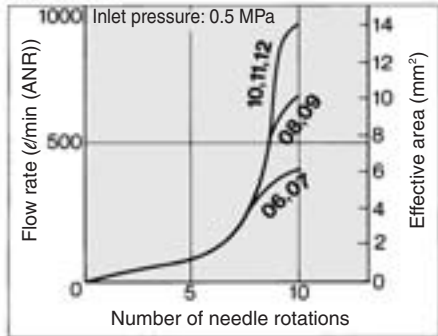
**AS2001F**



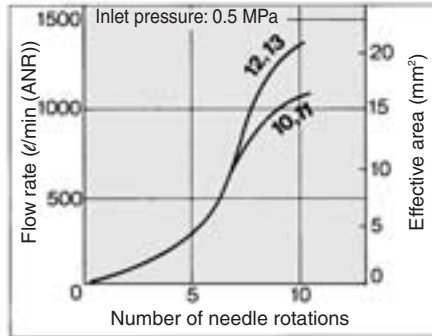
**AS2051F**



**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

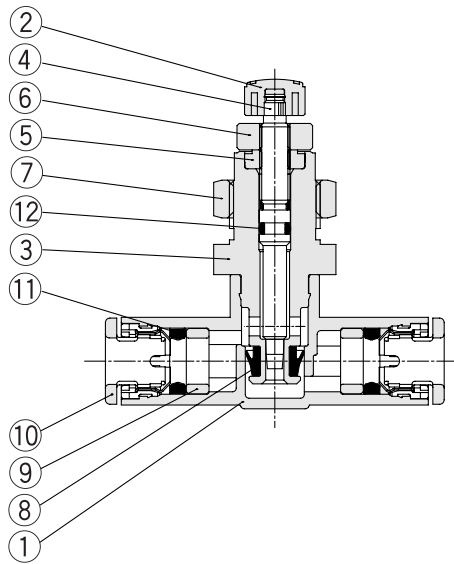
ASR  
ASQ

KE

TMH

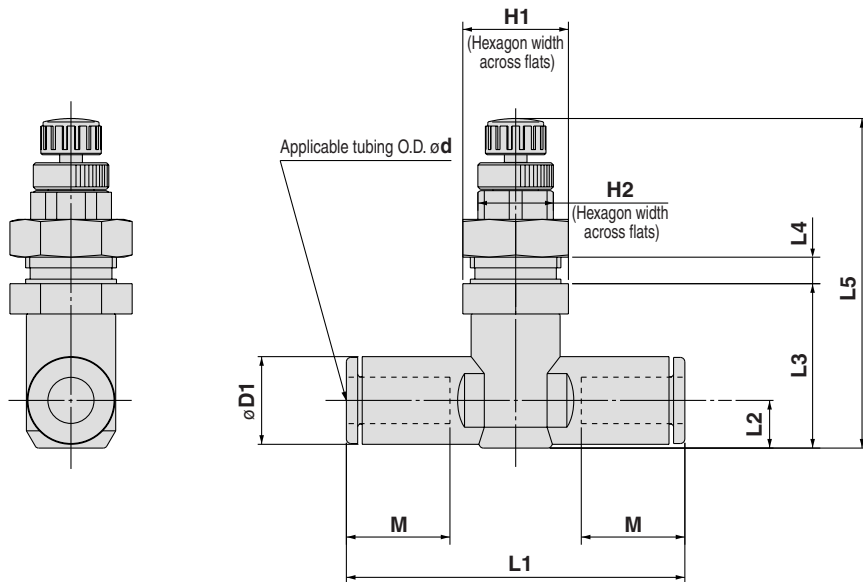
# Series AS□□□1F-3

## 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	Brass	Electroless nickel plated
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	14	10	40.7	6.2	18.5	3.5	39.3	36.1	13.5	12.5	20
AS2001F-04-3	4	9.3			40.7	5.2	20.7		48	42.5			28
AS2001F-06-3	6	11.6	17	13	44.8	6.3	21.8	3.5	49.1	43.6	13.5	15.5	29
AS2051F-06-3	6	12.8			53.2	6.7	25.7		54.8	48.1			49
AS2051F-08-3	8	15.2	21	16	59.8	8.1	27	3.5	60.1	54.7	17	18.5	54
AS3001F-06-3	6	12.8			64.4	8.2	32.1		60.9	55.5			88
AS3001F-08-3	8	15.2	27	21	71.6	9.8	33.7	3.5	62.5	57.1	21	24.5	99
AS3001F-12-3	12	20.9			76	11	34.9		63.7	58.3			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	14	10	48.7	6.2	18.5	3.5	39.3	36.1	13.5	12.5	24
AS1001F-07-3	1/4"	12			40.7				13.7	21			
AS2001F-03-3	5/32"	9.3	17	13	40.7	5.2	20.7	3.5	48	42.5	12.7	15.5	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	21	16	52.2	7.1	22.5	3.5	49.8	44.3	17	24.5	37
AS2051F-05-3	3/16"	11.4			52.2	6.2	25.2		53	47.6			47
AS2051F-07-3	1/4"	13.2	27	21	54.4	7.1	26	3.5	53.8	48.4	17	24.5	49
AS2051F-09-3	5/16"	15.2			59.8	8.1	27		54.8	49.4			54
AS3001F-07-3	1/4"	13.2	27	21	59	7.4	31.3	3.5	60.1	54.7	17	24.5	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	27	21	70.8	9.5	33.3	3.5	62.1	56.7	21	24.5	95
AS4001F-11-3	3/8"	17.9			76.9	10.3	34.9		69.2	60.9			175
AS4001F-13-3	1/2"	21.7	83.1	11.6	36.3	70.6	62.3	22	188				

Note 1) Reference dimensions