

# Speed Controller for Low Speed Operation with One-touch Fitting

## Series AS-FM

In-line Type (Resin Body)



### Model

Model	Applicable tubing O.D.									Applicable cylinder bore size (mm)
	Metric size				Inch size					
	3.2	4	6	8	1/8"	5/32"	3/16"	1/4"	5/16"	
AS1001FM	●	●	●		●	●	●	●		6, 10, 16, 20
AS2001FM		●	●			●	●	●		20, 25, 32
AS2051FM			●	●			●	●	●	20, 25, 32, 40

### 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 (20 turns <sup>(1)</sup> )
Applicable tubing material <sup>(2)</sup>	Nylon, Soft nylon, Polyurethane, Soft polyurethane

Note 1) In the case of AS1001FM type

Note 2) Use caution regarding the max. operating pressure when soft nylon or polyurethane, or soft polyurethane tubing is used.

(Refer to pages 15-6-3 to 15-6-5 for details.)

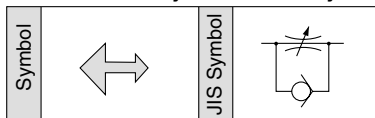
Note 3) Brass parts are all electroless nickel plated. The handle of the M5 type is black zinc chromate plated.

### Flow Rate and Effective Area

Model		AS1001FM	AS2001FM		AS2051FM	
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	Flow rate (l/min (ANR))	7	12		38	
	Effective area (mm <sup>2</sup> )	0.1	0.2		0.6	
Free flow	Flow rate (l/min (ANR))	100	130	230	290	460
	Effective area (mm <sup>2</sup> )	1.5	2	3.5	4.5	7

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

### Flow Direction Symbols on Body



### How to Order

**AS** 200 **1 F M** — 06

● **Body size**

<b>100</b>	M5 standard
<b>200</b>	1/8 standard
<b>205</b>	1/4 standard

● **Applicable tubing O.D.**

Metric size		Inch size	
<b>23</b>	ø3.2*	<b>01</b>	ø1/8"
<b>04</b>	ø4	<b>03</b>	ø5/32"
<b>06</b>	ø6	<b>05</b>	ø3/16"
<b>08</b>	ø8	<b>07</b>	ø1/4"
		<b>09</b>	ø5/16"

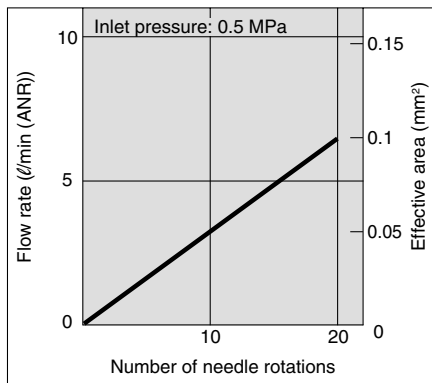
\* Use ø1/8" tube.

● **With one-touch fitting**

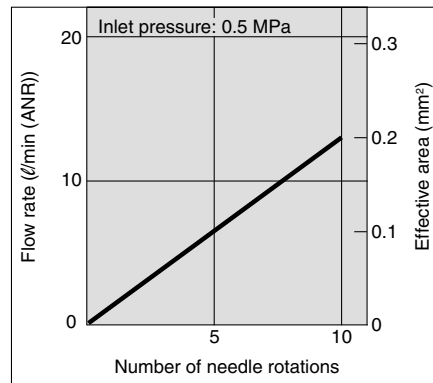
● **For low speed control**

### Needle Valve/Flow Characteristics

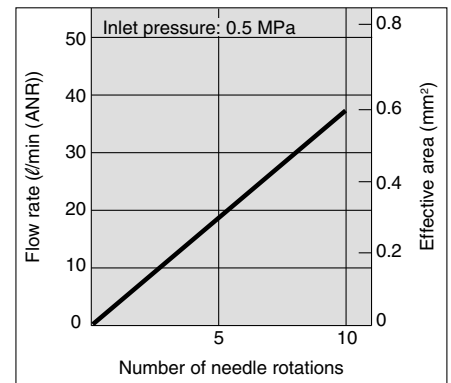
**AS1001FM**



**AS2001FM**



**AS2051FM**



**AS**

**ASP**

**ASN**

**AQ**

**ASV**

**AK**

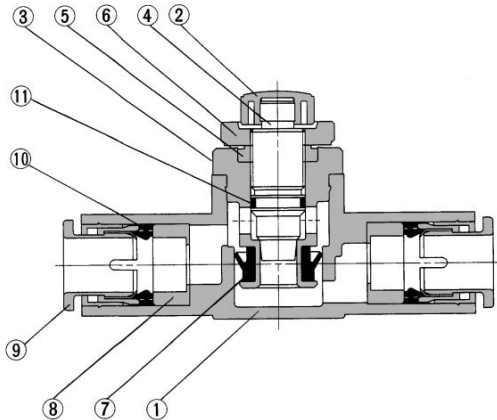
**ASS**

**ASR**

**ASF**

# Series AS-FM

## Construction



## Component Parts

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

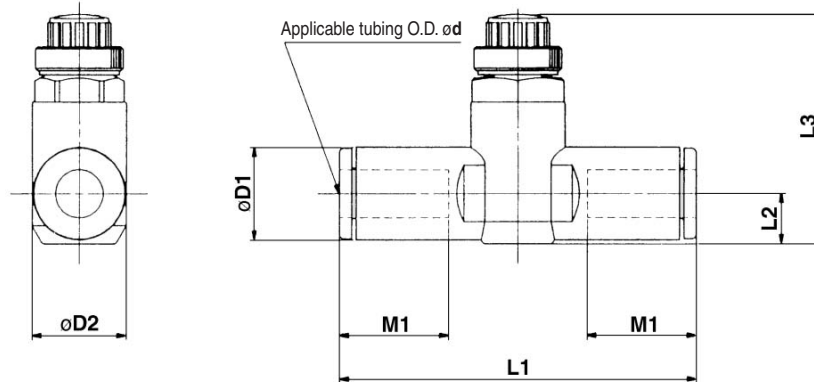
Note 1) AS1001FM type is made of brass (black zinc chromate plated).

Note 2) AS20□1FM type is made of steel.

Note 3)  $\phi 3/16"$  is made of brass (electroless nickel plated). AS2001FM-07, AS2051FM ( $\phi 6, \phi 8, \phi 1/4", \phi 5/16"$ ) are made of PBT.

Note 4)  $\phi 3/16"$  is made of POM, stainless steel, and brass (electroless nickel plated).

## Dimensions



### Metric Size

Model	d	D1	D2	L1	L2	L3		M1	Weight (g)
						Max.	Min.		
AS1001FM-23	3.2	8.4	10	38	4.5	27.7	24.9	12.7	6
AS1001FM-04	4	9.3		39.2	5.2	28.5	25.5		
AS1001FM-06	6	11.6		40.7	6.2	29.8	26.6		
AS2001FM-04	4	9.3	11.8	40.7	5.2	32.6	27.6	12.7	12
AS2001FM-06	6	11.6		44.8	6.3	33.7	28.7		
AS2051FM-06	6	12.8	14.8	53.2	6.7	35.2	30.2	17	26
AS2051FM-08	8	15.2		59.8	8.1	36.5	31.5		

### Inch Size

Model	d	D1	D2	L1	L2	L3		M1	Weight (g)
						Max.	Min.		
AS1001FM-01	1/8"	8.4	10	38	4.5	27.7	24.9	12.7	6
AS1001FM-03	5/32"	9.3		39.2	5.2	28.5	25.5		
AS1001FM-05	3/16"	11.4		48.7	6.2	27.7	24.7		
AS1001FM-07	1/4"	12	40.7	13.7					
AS2001FM-03	5/32"	9.3	11.8	40.7	5.2	32.6	29.6	12.7	12
AS2001FM-05	3/16"	11.4		50	6.2	33.6	28.6		
AS2001FM-07	1/4"	13.2	14.8	52.2	7.1	34.5	29.5	17	21
AS2051FM-05	3/16"	11.4		52.2	6.2	34.6	29.6		
AS2051FM-07	1/4"	13.2		54.4	7.1	35.5	30.5		
AS2051FM-09	5/16"	15.2	14.8	59.8	8.1	36.5	31.5	18	31