

Tamper Proof Speed Controller with One-touch Fitting In-line Type

AS□□□1F-T Series



Model

Model	Applicable tubing O.D.												
	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	●	●	●				●	●	●				
AS2001F		●	●					●	●	●			
AS2051F			●	●					●	●	●		
AS3001F			●	●	●	●				●	●	●	
AS4001F					●	●						●	●

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)
Applicable tubing material ⁽¹⁾	Nylon, Soft nylon, Polyurethane

Note 1) Use caution regarding the max. operating pressure when soft nylon or polyurethane tubing is used. (Refer to pages 464 and 465 for details.)

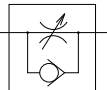
Note 2) Brass parts are all electroless nickel plated.

Flow Rate and Sonic Conductance

Model		AS1001F	AS2001F	AS2051F	AS3001F	AS4001F					
Tubing O.D.	Metric size	ø3.2, ø4, ø6	ø4	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	Flow rate (L/min (ANR))	100	130	230	290	460	420	660	920	1050	1390
Free flow	Sonic conductance dm ² /(s.bar)	0.3	0.4	0.7	0.9	1.4	1.3	2	2.8	3.2	4.2
	Controlled flow	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Critical pressure ratio	Controlled flow	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
	Free flow	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25

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

Symbol



Flow Direction Symbols on Body



Made to Order
(For details, refer to page 760.)

Symbol	Specifications
-X12	Lubricant: Vaseline
-X21	Grease-free (Seal: Fluorine-coated) + Throttle valve (Without check valve)
-X214	Throttle valve (Without check valve)

Caution

Be sure to read this before handling the products. Refer to back page 50 for Safety Instructions and pages 543 to 546 for Flow Control Equipment Precautions.

How to Order

AS **200** 1F - **06** T - **□**

Body size ↓

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

With One-touch fittings ↓

Tamper proof

Note) Speed controller requires a special tool for flow adjustment. Order separately with part number, AS-T-1.

Applicable tubing O.D. ^(Note)

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"

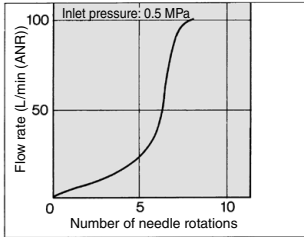
Made to Order
Refer to page 760 for details.

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

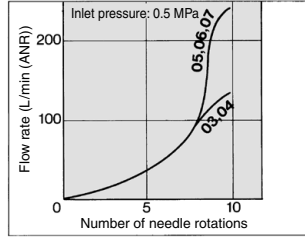
Needle Valve/Flow Rate Characteristics

Note) The flow rate characteristics are representative values.

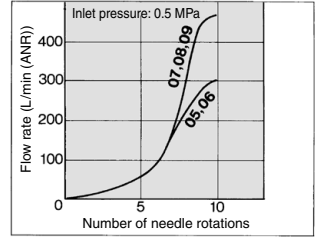
AS1001F



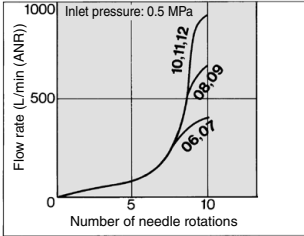
AS2001F



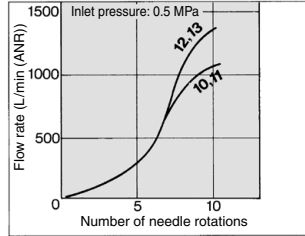
AS2051F



AS3001F

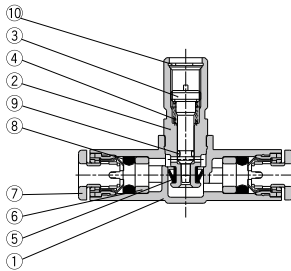


AS4001F

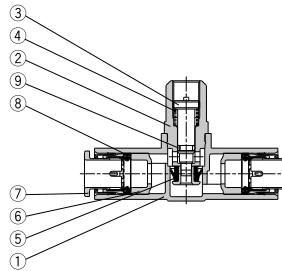


Construction

AS1001F



AS2001F to AS4001F



Component Parts

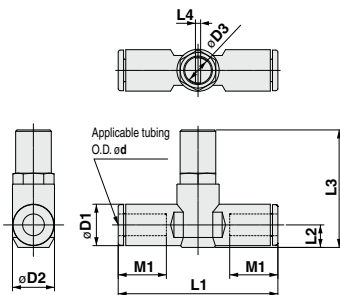
No.	Description	Material	Note
1	Body A	PBT	
2	Body B	Brass	Electroless nickel plated
3	Needle	Brass	Electroless nickel plated
4	Spring	Steel wire ⁽¹⁾	
5	U seal	HNBR	
6	Spacer	—	
7	Cassette	—	
8	Seal	NBR	
9	O-ring	NBR	
10	Retaining ring for hole type C	Tool steel	

Note 1) AS1001F type: Stainless steel

- AS-F
- TMH
- ASD
- AS
- AS-FE
- KE
- AS-FG
- AS-FP
- AS-FM
- AS-D
- AS-T
- ASP
- ASN
- AQ
- ASV
- AK
- VCHC
- ASR
- ASQ

AS□□□1F-T Series

Dimensions



Metric Size

Model	d	D1	D2	D3	L1	L2	L3	L4	M1	Weight(g)
AS1001F-23T	3.2	8.4	10.5	4.5	38	4.5	26	0.7	12.7	8
AS1001F-04T	4	9.3			39.2	5.2	26.6		9	
AS1001F-06T	6	11.6	12.3	7	40.7	6.2	27.7	1.5	13.5	10
AS2001F-04T	4	9.3			40.7	5.2	31.9		12.7	15
AS2001F-06T	6	11.6	15.5	7	44.8	6.3	33	1.5	13.5	16
AS2051F-06T	6	12.8			53.2	6.7	35.2		17	33
AS2051F-08T	8	15.2	20.6	9.5	59.8	8.1	36.5	1.5	18	36
AS3001F-06T	6	12.8			59	7.4	45		17	56
AS3001F-08T	8	15.2	27.6	12	64.4	8.2	45.8	1.5	18	60
AS3001F-10T	10	18.5			71.6	9.8	47.3		21	64
AS3001F-12T	12	20.9	27.6	12	76	11	48.5	1.5	22	68
AS4001F-10T	10	18.5			77.7	11.3	55.4		21	121
AS4001F-12T	12	20.9	82.1		56.4	22	125			

Inch Size

Model	d	D1	D2	D3	L1	L2	L3	L4	M1	Weight(g)
AS1001F-01T	1/8"	8.4	10.5	4.5	38	4.5	26	0.7	12.7	8
AS1001F-03T	5/32"	9.3			39.2	5.2	26.6		9	
AS1001F-05T	3/16"	11.4	12.3	7	40.7	6.2	27.7	1.5	13.5	10
AS1001F-07T	1/4"	12			40.7	5.2	31.9		12.7	15
AS2001F-03T	5/32"	9.3	15.5	7	40.7	6.2	32.8	1.5	13.5	16
AS2001F-05T	3/16"	11.4			50	6.2	32.8		17	19
AS2001F-07T	1/4"	13.2	20.6	9.5	52.2	7.1	33.7	1.5	17	33
AS2051F-05T	3/16"	11.4			52.2	6.2	34.9		16.5	35
AS2051F-07T	1/4"	13.2	27.6	12	54.4	7.1	35.7	1.5	17	33
AS2051F-09T	5/16"	15.2			59.8	8.1	36.7		18	36
AS3001F-07T	1/4"	13.2	27.6	12	59	7.4	45.2	1.5	17	56
AS3001F-09T	5/16"	15.2			64.4	8.2	46		18	60
AS3001F-11T	3/8"	17.9	27.6	12	70.8	9.5	47.2	1.5	21	72
AS4001F-11T	3/8"	17.9			76.9	10.3	55.5		21	129
AS4001F-13T	1/2"	21.7	83.1	11.6	56.9	22	142			

Made to Order



Lubricant: Vaseline

X12

Ex.) AS1001F-23T-X12

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

X21

Ex.) AS1001F-23T-X21

Note 1) Not particle-free

Throttle Valve (Without Check Valve)

X214

Ex.) AS1001F-23T-X214