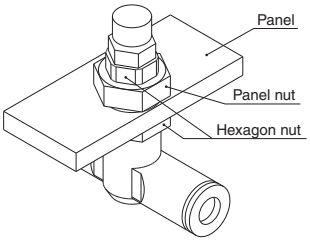
Speed Controller with One-touch Fittings
In-line Type/Panel Mount Type
Series AS□□□1F-3

RoHS

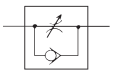
Panel mount thickness: 3.5 mm at the maximum

Easy installation and removal

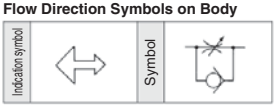
Installment of hexagon nuts on panel nuts up and down in two locations enables user to mount or remove it depending upon the situation.



Symbol



Flow Direction Symbols on Body



Made to Order
(Refer to page 507 for details.)

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 411 and 412 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	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^3/(s·bar))	0.28	0.36	0.64	0.8	1.3	1.2	1.8	2.6	2.9	3.9
Critical pressure ratio	Controlled flow	0.2	0.2		0.2		0.2			0.2	
	Free flow	0.25	0.25		0.25		0.25			0.25	

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

With One-touch fittings

Applicable tubing O.D. Note)

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"

Panel mount type

Made to Order
Refer to page 507 for details.

Lock nut option

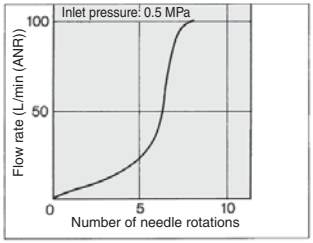
Nil	Hexagon lock nut
J	Round lock nut

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

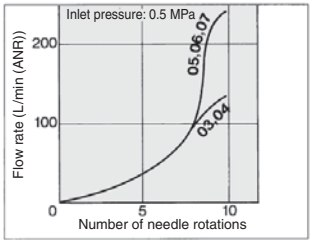
Needle Valve/Flow Characteristics

Note) The flow characteristics are representative values.

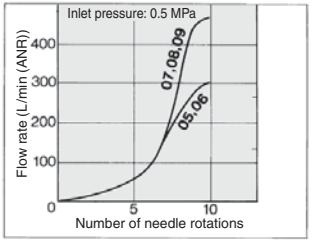
AS1001F



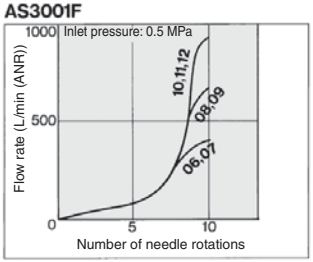
AS2001F



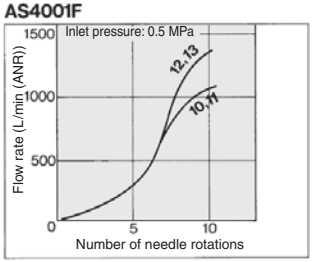
AS2051F



AS3001F



AS4001F



⚠Caution

Be sure to read before handling.
Refer to front matter 56 for Safety Instructions and pages 468 to 471 for Flow Control Equipment Precautions.

Made to Order

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

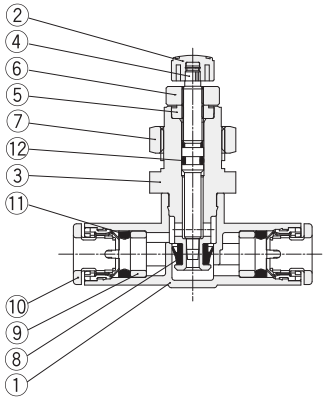
Note) Not particle-free

Throttle Valve (Without Check Valve) **X214**

Ex.) AS2001F-04-3-X214

Series AS□□□1F-3

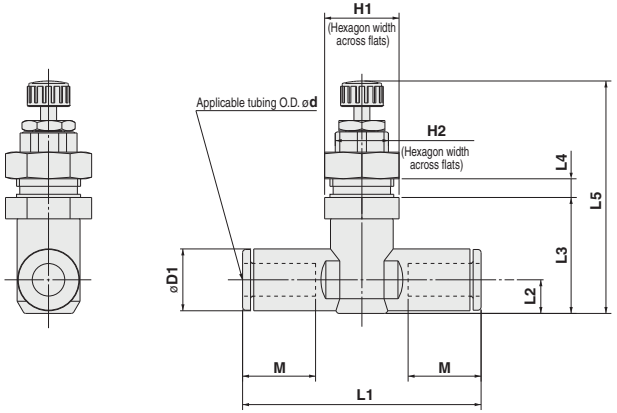
Construction



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

Note 1) Option: The round lock nut is made of electroless nickel plated brass.

Dimensions



Metric Size

Model	d	D1	H1	H2	L1	L2	L3	L4 Max.	L5 (1) Max.	L5 (1) Min.	M	Panel-cut dimensions	Weight (g)
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	13.5		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	13.5		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	18		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	18		88
AS3001F-10-3	10	18.5			71.6	9.8	33.7		62.5	57.1	21		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

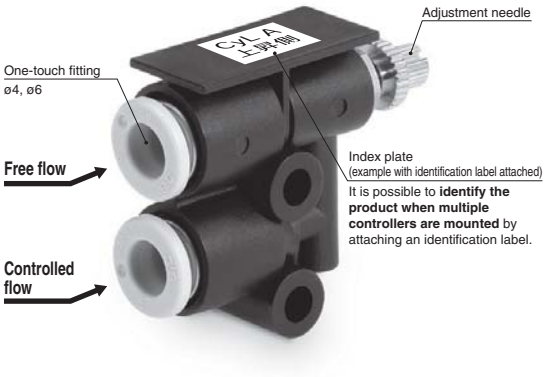
Model	d	D1	H1	H2	L1	L2	L3	L4 Max.	L5 (1) Max.	L5 (1) Min.	M	Panel-cut dimensions	Weight (g)
AS1001F-01-3	1/8"	8.4	12	8	38	4.5	16.8	3.5	37.6	34.4	12.7	10.5	18
AS1001F-03-3	5/32"	9.3			39.2	5.2	17.4		38.2	35			19
AS1001F-05-3	3/16"	11.4			48.7	6.2	18.5		39.3	36.1	16.5		24
AS1001F-07-3	1/4"	12			40.7						13.7		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	16.5		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	17		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	18		88
AS3001F-11-3	3/8"	17.2			70.8	9.5	33.3		62.1	56.7	21		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		188

Note 1) Reference dimensions

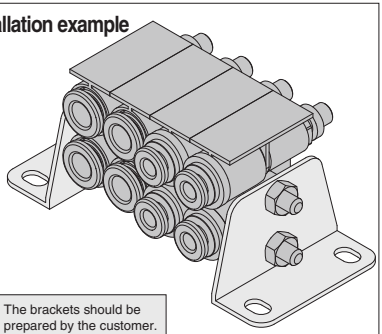
Made to Order Specifications
AS-DPP00092/00093

Please contact SMC for details dimensions, specifications, and lead times.

Made to Order



Installation example



Note) The brackets should be prepared by the customer.

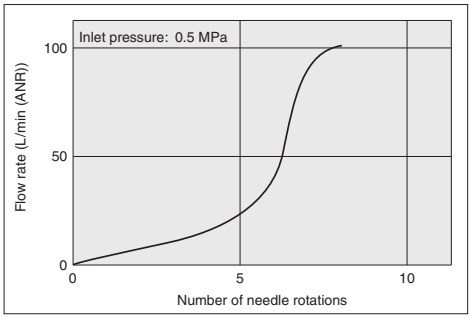
Specifications

Model	AS-DPP00092	AS-DPP00093
Applicable tubing O.D.	ø4	ø6
Fluid	Air	
Proof pressure	1.5 MPa	
Max. operating pressure	1 MPa (0.7 MPa Note 1))	
Min. operating pressure	0.1 MPa	
Ambient and fluid temperature	–5 to 60°C (No freezing)	
Applicable tubing material Note 1)	Nylon, Soft nylon, Polyurethane	

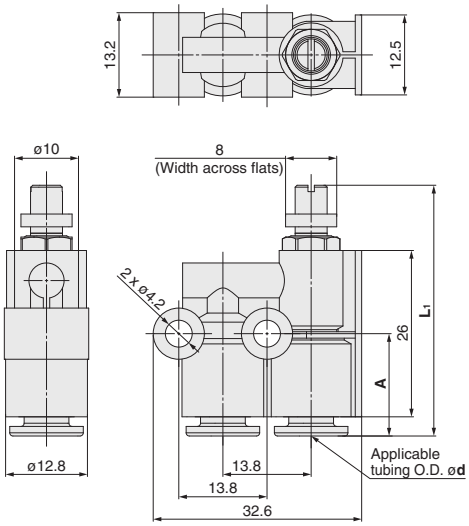
Note 1) Use caution at the max. operating pressure when soft nylon or polyurethane tubing is used.
(Refer to pages 411 and 412 for details.)
Note 2) Brass parts are all electroless nickel plated.

Flow-rate Characteristics

AS-DPP00092
AS-DPP00093



Dimensions



Dimensions (mm)

Model	Applicable tubing O.D. **d**	**A**	**L1**	
			MAX.	MIN.
AS-DPP00092	4	19.4	46.9	42.7
AS-DPP00093	6	16	43.5	39.3