

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

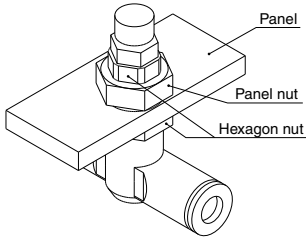
Series AS□□□1F-3

RoHS

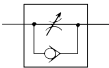
Panel mount thickness:
3.5 mm at the maximum

Easy installation and removal

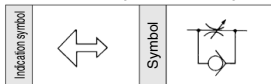
Installation of hexagon nuts on panel nuts up and down in two locations enables user to mount or remove it depending upon the situation.



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		
	Metric size	Flow rate (L/min (ANR))	Metric size	Flow rate (L/min (ANR))	Metric size	Flow rate (L/min (ANR))	Metric size	Flow rate (L/min (ANR))	Metric size	Flow rate (L/min (ANR))	
Tubing O.D.	ø3.2, ø4, ø6		ø4	ø6	ø6	ø8	ø6	ø8	ø10, ø12	ø10	ø12
	ø1/8", ø5/32", ø3/16", ø1/4"		ø5/32", ø1/4"	ø3/16", ø1/4"	ø3/16", ø5/16"	ø1/4", ø5/16"	ø1/4", ø5/16"	ø3/8"	ø3/8"	ø1/2"	
Controlled flow	100	130	230	290	460	420	660	920	1050	1390	
Free flow	0.28	0.36	0.64	0.8	1.3	1.2	1.8	2.6	2.9	3.9	
Critical pressure ratio	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
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.

How to Order

AS **200** 1 F - **06** - **3** - **NI** - **J**

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

NI	Hexagon lock nut
J	Round lock nut

Made to Order
Refer to page 507 for details.

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"
11	ø3/8"
12	ø12
13	ø1/2"

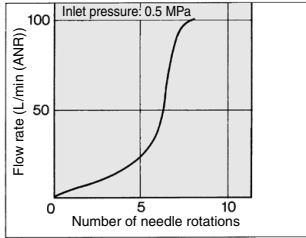
With One-touch fittings

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

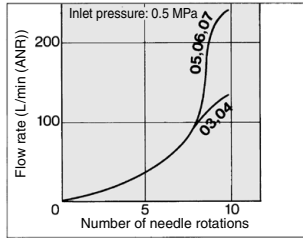
Needle Valve/Flow Characteristics

Note) The flow characteristics are representative values.

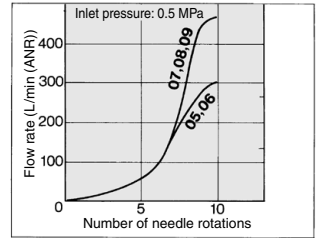
AS1001F



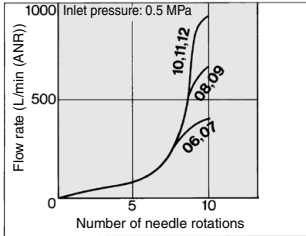
AS2001F



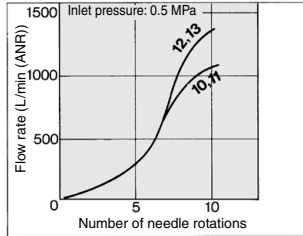
AS2051F



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



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)

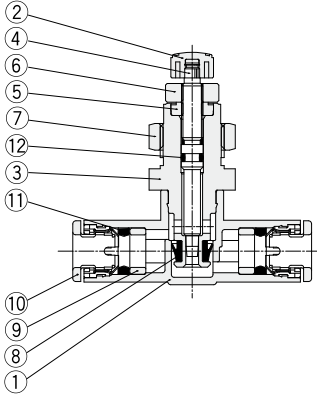
X214

Ex.) AS2001F-04-3-X214

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

Series AS□□□1F-3

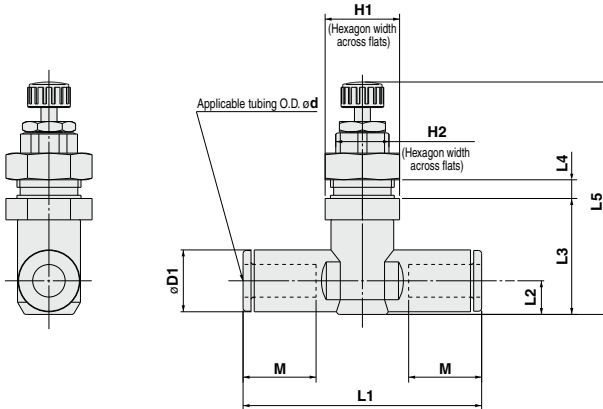
Construction



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		L5 ⁽¹⁾		M	Panel-cut dimension	Weight (g)
								Max.	Min.	Max.	Min.			
AS1001F-23-3	3.2	8.4			38	4.5	16.8			37.6	34.4			18
AS1001F-04-3	4	9.3	12	8	39.2	5.2	17.4	3.5		38.2	35	12.7	10.5	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			40.7	5.2	20.7	3.5		48	42.5	12.7	12.5	28
AS2001F-06-3	6	11.6	14	10	44.8	6.3	21.8			49.1	43.6	13.5		29
AS2051F-06-3	6	12.8			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			59	7.4	31.3			60.1	54.7	17		85
AS3001F-08-3	8	15.2	21	16	64.4	8.2	32.1	3.5		60.9	55.5	18	18.5	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			77.7		35	3.5		69.3	61	21	24.5	167
AS4001F-12-3	12	20.9	27	21	82.1	11.3	36			70.3	62	22		171

Note 1) Reference dimensions

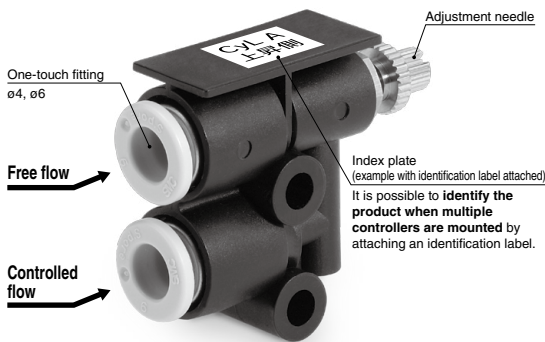
Inch Size

Model	d	D1	H1	H2	L1	L2	L3	L4		L5 ⁽¹⁾		M	Panel-cut dimension	Weight (g)
								Max.	Min.	Max.	Min.			
AS1001F-01-3	1/8"	8.4			38	4.5	16.8			37.6	34.4			18
AS1001F-03-3	5/32"	9.3	12	8	39.2	5.2	17.4	3.5		38.2	35	12.7	10.5	19
AS1001F-05-3	3/16"	11.4			48.7		18.5			39.3	36.1	13.5		24
AS1001F-07-3	1/4"	12			40.7	6.2	20.7			48	42.5	12.7		21
AS2001F-03-3	5/32"	9.3			40.7	5.2	20.7	3.5		48	42.5	12.7		28
AS2001F-05-3	3/16"	11.4	14	10	50	6.2	21.6	3.5		48.9	43.4	16.5	12.5	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			52.2	6.2	25.2			53	47.6	16.5		47
AS2051F-07-3	1/4"	13.2	17	13	54.4	7.1	26	3.5		53.8	48.4	17	15.5	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			59	7.4	31.3			60.1	54.7	17		84
AS3001F-09-3	5/16"	15.2	21	16	64.4	8.2	32.1	3.5		60.9	55.5	18	18.5	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			76.9	10.3	34.9			69.2	60.9	21		175
AS4001F-13-3	1/2"	21.7	27	21	83.1	11.6	36.3	3.5		70.6	62.3	22	24.5	188

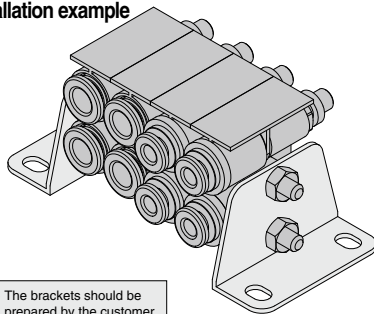
Note 1) Reference dimensions

Speed Controller with One-touch Fittings/Centralized Piping Type Made to Order Specifications AS-DPP00092/00093

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



Installation example



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	

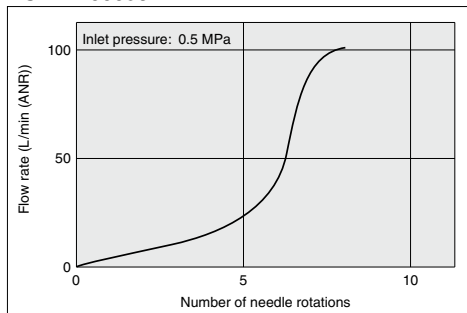
Note 1) Use caution at the max. operating pressure when soft nylon or polyurethane tubing is used.

(Refer to pages 411 and 412 for details.)

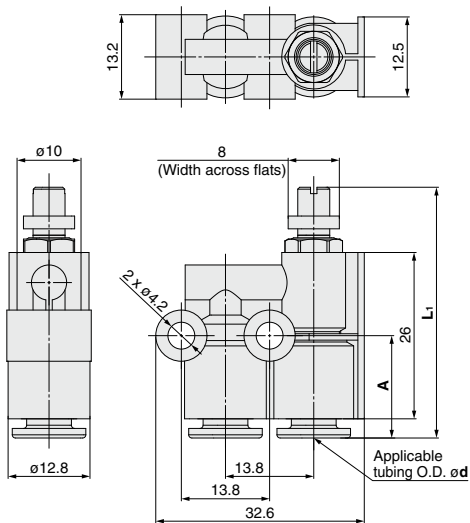
Note 2) Brass parts are all electroless nickel plated.

Flow-rate Characteristics

AS-DPP00092
AS-DPP00093



Dimensions



Dimensions

Model	Applicable tubing O.D. d	A	L ₁ (mm)	
			MAX.	MIN.
AS-DPP00092	4	19.4	46.9	42.7
AS-DPP00093	6	16	43.5	39.3

AS

TMH

ASD

AS

AS-FE

KE

AS-FG

AS-FP

AS-FM

AS-D

AS-T

ASP

ASN

AQ

ASV

AK

VCHC

ASS

ASR

ASQ