

Speed Controller with One-touch Fittings

Series AS

In-line Style

Minimizes installation time and cost

Reduce the mounting height and enables compact machinery design. Effective area is larger than the former model.

Application to inch size tubing

- **Metric size** (Release bushing: White color)
 $\phi 3.2, \phi 4, \phi 6, \phi 8, \phi 10, \phi 12$
- **Inch size** (Release bushing: Orange color)
 $\phi 1/8", \phi 5/32", \phi 3/16", \phi 1/4", \phi 5/16", \phi 3/8", \phi 1/2"$

Operating pressure 1MPa max.

Applicable tube material

Nylon, Soft nylon and Polyurethane tubing

Retainer prevents accidental loss of needle

Optional: Hexagonal lock nut, Nickel plated option

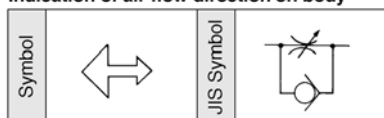
Number of needle rotations has been increased (8 to 10 turns)

The increased number of needle rotations (8 to 10 turns) permits easy control at low speed.

In-line style



Indication of air flow direction on body



Model

Model	Applicable tube 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

Note) ●: Nickel plated model is standard.

Specifications

Proof pressure	1.5MPa
Max. operating pressure	1MPa
Min. operating pressure	0.1MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)
Number of needle rotations	10 turns (8 turns ⁽¹⁾)
Applicable tubes ⁽²⁾	Nylon, Soft nylon, Polyurethane
Option	Hexagonal lock nut, Nickel plated ⁽³⁾

Note 1) AS1001F

Note 2) Pay attention to the maximum operating pressure when soft nylon or polyurethane is used. (Refer to p. 2.4-2 and 2.4-3 in "Best Pneumatics No.4" for further information.)

Note 3) Brass parts are all electroless nickel plated.

Air Flow/Effective Area

Model	AS1001F	AS2001F	AS2051F	AS3001F	AS4001F						
Applicable tube O.D.	Metric size	$\phi 3.2, \phi 4, \phi 6$	$\phi 4$	$\phi 6$	$\phi 6$	$\phi 8$	$\phi 6$	$\phi 8$	$\phi 10, \phi 12$	$\phi 10$	$\phi 12$
	Inch size	$\phi 1/8", \phi 5/32"$	$\phi 5/32"$	$\phi 3/16", \phi 1/4"$	$\phi 3/16"$	$\phi 1/4, \phi 5/16$	$\phi 1/4$	$\phi 5/16$	$\phi 3/8"$	$\phi 3/8"$	$\phi 1/2"$
Controlled (Free) Flow	Air flow (l/min(ANR))	100	130	230	290	460	420	660	920	1050	1390
	Effective area (mm ²)	1.5	2	3.5	4.5	7	6.5	10	14	16	21

Note) Supply pressure: 0.5MPa, Temperature: 20°C.

How to Order

AS 400 1F — 12 K

Body size

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

With One-touch fittings

Option*

-	None
K	Hexagonal lock nut
N	Electroless nickel plated

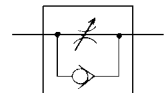
*Indicate symbols in alphabetical order if two options or more desired.

Applicable tube O.D.

Metric size	Inch size
23 $\phi 3.2^*$	01 $\phi 1/8"$
04 $\phi 4$	03 $\phi 5/32"$
06 $\phi 6$	05 $\phi 3/16"$
08 $\phi 8$	07 $\phi 1/4"$
10 $\phi 10$	09 $\phi 5/16"$
12 $\phi 12$	11 $\phi 3/8"$
	13 $\phi 1/2"$

*Use $\phi 1/8"$ tubing.

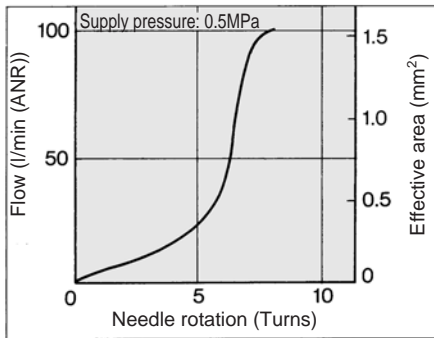
JIS Symbol



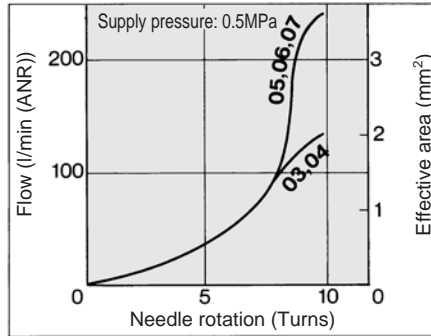
With One-touch Fittings: In-line Style Series AS

Needle Valve/Flow Characteristic

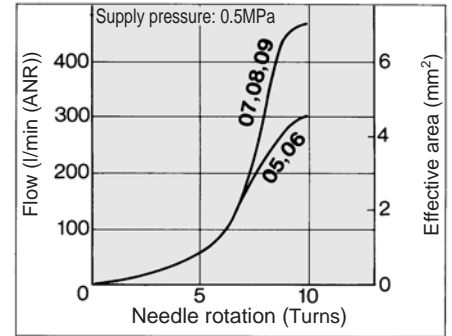
AS1001F



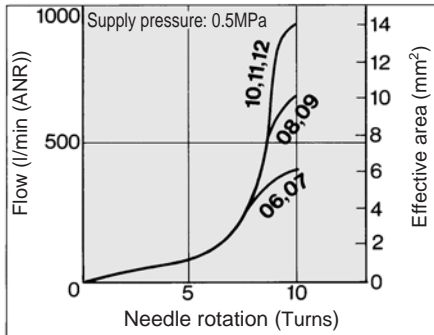
AS2001F



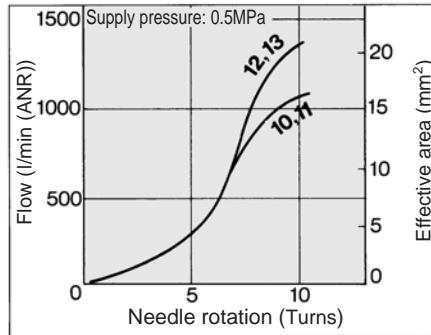
AS2051F



AS3001F



AS4001F



⚠ Caution

Be sure to read before handling.
Refer to p.0-20 and 0-21 for Safety Instructions and common precautions on the products mentioned in this catalogue, and refer to p.4.0-3 to 4.0-5 for precautions on every series.

AS

ASN

AQ

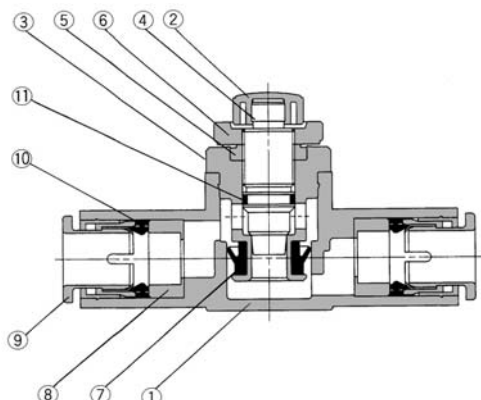
ASV

AK

ASS

Series AS

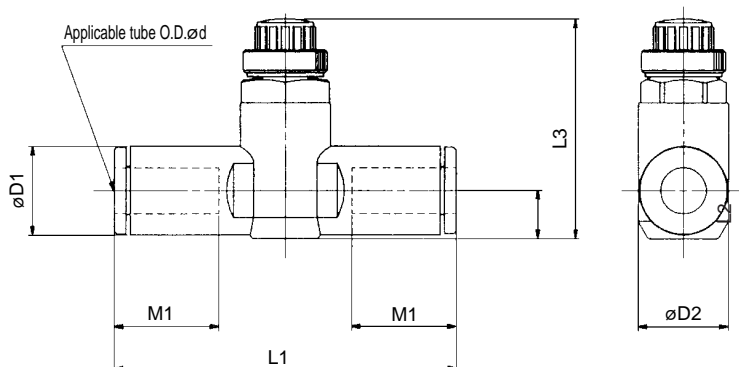
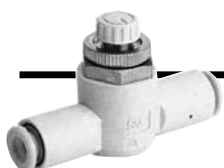
Construction



Component Parts

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 ⁽¹⁾	Electroless nickel plated
⑦	U-packing	NBR	
⑧	Spacer	Brass ⁽²⁾	
⑨	Cassette	POM, Stainless steel	
⑩	Packing	NBR	
⑪	O ring	NBR	

Note 1) AS2 □□1F: Steel
 Note 2) ø3.2, ø4, ø6, ø1/8", ø5/32" (Except for AS3001F-006): POM



Metric

Model	Tube O.D. d	D1	D2	L1	L2	L3		M1	Weight (g)
						MAX.	MIN.		
AS1001F-23	3.2	8.4	10	38.0	4.5	23.5	20.7	12.7	6
AS1001F-04	4	9.3		39.2	5.2	24.2	21.4	7	
AS1001F-06	6	11.6	11.8	40.7	6.2	25.2	22.4	13.5	8
AS2001F-04	4	9.3		40.7	5.2	32.6	27.6	12.7	12
AS2001F-06	6	11.6	14.8	44.8	6.3	33.7	28.7	13.5	13
AS2051F-06	6	12.8		53.2	6.7	35.2	30.2	17	26
AS2051F-08	8	15.2	19.8	59.8	8.1	36.5	31.5	18	31
AS3001F-06	6	12.8		59	7.4	38.3	33.3	17	18
AS3001F-08	8	15.2	26.5	64.4	8.2	39.1	34.1	18	21
AS3001F-10	10	18.5		71.6	9.8	40.6	35.6	21	32
AS3001F-12	12	20.9	82	76	11	41.8	36.8	22	33
AS4001F-10	10	18.5		51.1	11.3	43.6	21	36	
AS4001F-12	12	20.9	52.1	11.3	44.6	22	40		

Inch

Model	Tube O.D. d	D1	D2	L1	L2	L3		M1	Weight (g)
						MAX.	MIN.		
AS1001F-01	1/8"	8.4	10	38	4.5	23.5	20.7	12.7	6
AS1001F-03	5/32"	9.3		39.2	5.2	24.2	21.4	7	
AS2001F-03	5/32"	9.3	11.8	40.7	5.2	32.6	27.6	12.7	12
AS2001F-05	3/16"	11.4		50	6.2	33.6	28.6	16.5	18
AS2001F-07	1/4"	13.2	14.8	52.2	7.1	34.5	29.5	17	21
AS2051F-05	3/16"	11.4		52.2	6.2	34.6	29.6	16.5	24
AS2051F-07	1/4"	13.2	19.8	54.4	7.1	35.5	30.5	17	26
AS2051F-09	5/16"	15.2		59.8	8.1	36.5	31.5	18	31
AS3001F-07	1/4"	13.2	26.5	59	7.4	38.3	33.3	17	42
AS3001F-09	5/16"	15.2		64.4	8.2	39.1	34.1	18	46
AS3001F-11	3/8"	17.9	83.1	70.8	9.5	40.3	35.3	21	53
AS4001F-11	3/8"	17.9		76.9	10.3	51	43.5	21	97
AS4001F-13	1/2"	21.7	83.1	11.6	52.4	44.9	22	106	

In-line Style

File	Model	Detail No.					
		Tube O.D.					
		3.2	4	6	8	10	12
SAS01F1N	AS1001F-□	#1	#2	#3	—	—	—
	AS2001F-□	—	#4	#5	—	—	—
	AS2051F-□	—	—	#6	#7	—	—
	AS3001F-□	—	—	—	#8	#9	#10
	AS4001F-□	—	—	—	—	#11	#12

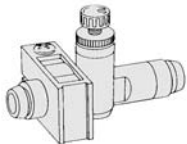
Holder Series *TMH*

A holder for securing a speed controller (in-line style) with a One-touch fitting.

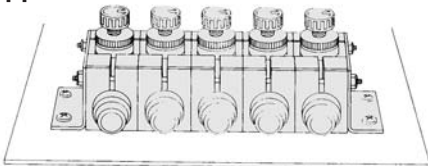
Universal mounting



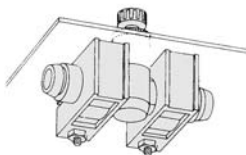
The holder can be used to secure an individual part.



Adaptable for a manifold application.⁽¹⁾



Can be mounted to a panel.



Specifications

Ambient temperature	-20 to 60°C
Material	Polypropylene
Color	White

Accessory: Round head Phillips screw for mounting (Black zinc chromated).

Model		Size (nominal X height)	Piece
Metric	Inch		
TMH-23J	TMH-01J	M3 X 15	1
TMH-04J	TMH-03J		
TMH-06J	TMH-05		
TMH-06	TMH-07	M4 X 25	
TMH-08	TMH-09		
TMH-10	TMH-11	M4 X 35	
TMH-12	TMH-13		

Correspondence of In-line Speed Controller and Holder

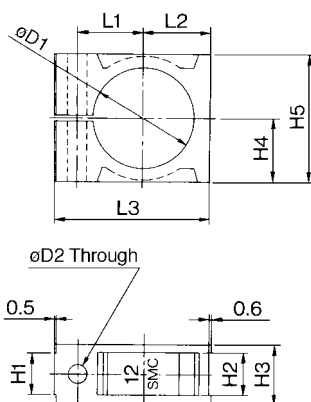
Metric

Body size	Tube size	Applicable tube					
		23	04	06	08	10	12
		ø3.2	ø4	ø6	ø8	ø10	ø12
AS1001F	TMH-23J						
AS2001F			TMH-04J	TMH-06J			
AS2051F				TMH-06	TMH-08		
AS3001F						TMH-10	TMH-12
AS4001F							

Inch

Body size	Tube size	Applicable tube						
		01	03	05	07	09	11	13
		ø1/8"	ø5/32"	ø3/16"	ø1/4"	ø5/16"	ø3/8"	ø1/2"
AS1001F	TMH-01J							
AS2001F			TMH-03J					
AS2051F				TMH-05	TMH-07			
AS3001F						TMH-09		
AS4001F							TMH-11	TMH-13

Dimensions



Model		øD1	øD2	H1	H2	H3	H4	H5	L1	L2	L3	Symbol
Metric	Inch											
TMH-23J	TMH-01J	8.4							7.2	6.6	18	1/8J
TMH-04J	TMH-03J	9.3	3.3	4.5	4.6	7.5	6	12	7.2	6.6	18	1/32J
—	TMH-05	11.7	3.3	6.3	6.4	9.3	7.7	15.4	8.5	8.3	21	3/16
TMH-06J	—	11.6										6
TMH-06	—	13.1										1/4
—	TMH-07	13.5	4.3	7.1	7.2	11	10	20	11	10.6	26.5	8
TMH-08	TMH-09	15.5										5/16
TMH-10	—	18.5										10
—	TMH-11	18.8										3/8
TMH-12	—	21.2	4.3	9.5	9.6	14	14	28	14.2	14.6	34	12
—	TMH-13	22										1/2

Note 1) Mounting bracket is not available. This is an application example.

AS

ASN

AQ

ASV

AK

ASS