

# Speed Controller with One-touch Fittings

## Series AS

In-line Style

RoHS

### 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)  
ø3.2, ø4, ø6, ø8, ø10, ø12
- **Inch size** (Release bushing: Orange color)  
ø1/8", ø5/32", ø3/16", ø1/4", ø5/16", ø3/8", ø1/2"

### 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

### 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 <sup>(1)</sup> )
Applicable tubes <sup>(2)</sup>	Nylon, Soft nylon, Polyurethane
Option	Hexagonal lock nut, Nickel plated <sup>(3)</sup>

Note 1) AS1001F

Note 2) Pay attention to the maximum operating pressure when soft nylon or polyurethane is used.

(Refer to p. 7-146 and 7-147 in "Best Pneumatics 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	ø3.2, ø4, ø6	ø4	ø6	ø6	ø8	ø6	ø8	ø10, ø12	ø10	ø12
	Inch size	ø1/8", ø5/32"	ø5/32"	ø3/16", ø1/4"	ø3/16"	ø1/4, ø5/16	ø1/4	ø5/16	ø3/8"	ø3/8"	ø1/2"
Controlled (Free) Flow	Air flow (w/min(ANR))	100	130	230	290	460	420	660	920	1050	1390
	Effective area (mm <sup>2</sup> )	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

JIS Symbol

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.

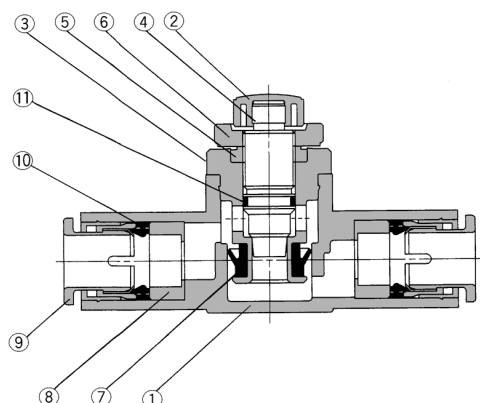
Applicable tube O.D.

Metric size	Inch size
23 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"

\*Use ø1/8" tubing.

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

## Construction

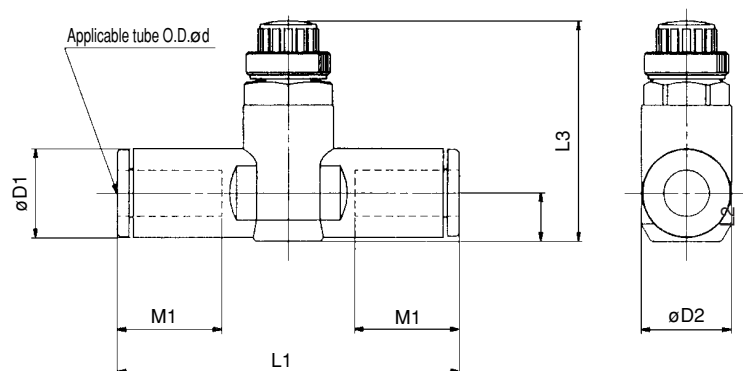
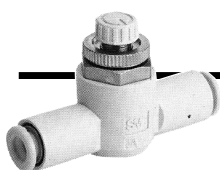


### Component Parts

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 <sup>(1)</sup>	Electroless nickel plated
⑦	U-packing	NBR	
⑧	Spacer	Brass <sup>(2)</sup>	
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		40.7	6.2	25.2	22.4	13.5	8
AS2001F-04	4	9.3	11.8	40.7	5.2	32.6	27.6	12.7	12
AS2001F-06	6	11.6		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	14.8	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		64.4	8.2	39.1	34.1	18	21
AS3001F-10	10	18.5	19.8	71.6	9.8	40.6	35.6	21	32
AS3001F-12	12	20.9		76	11	41.8	36.8	22	33
AS4001F-10	10	18.5		51.1	43.6	21	36		
AS4001F-12	12	20.9	26.5	82	11.3	52.1	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		40.7	5.2	32.6	27.6	12.7	12
AS2001F-05	3/16"	11.4	11.8	50	6.2	33.6	28.6	16.5	18
AS2001F-07	1/4"	13.2		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	14.8	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		59	7.4	38.3	33.3	17	18
AS3001F-09	5/16"	15.2	19.8	64.4	8.2	39.1	34.1	18	46
AS3001F-11	3/8"	17.9		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	26.5	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	#11
	AS4001F-□	—	—	—	—	#12	#13