

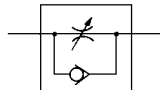
Speed Controller with One-touch Fitting Elbow Type (Metal Body) Series AS

Speed controller with One-touch fittings for metal body specifications

- Uses flame resistant resin as standard.
(UL standard V-0)



JIS Symbol



Made to Order

(Refer to page 428 for details.)

Model

Model	Port size	Applicable tubing O.D.					Applicable cylinder bore size (mm)
		4	6	8	10	12	
AS12□1-M5	M5 x 0.8	●	●				6, 10, 16, 20
AS22□1-01	R 1/8		●	●			20, 25, 32
AS22□1-02	R 1/4		●	●			20, 25, 32, 40
AS32□1-02	R 1/4			●	●		40, 50, 63
AS32□1-03	R 3/8			●	●		40, 50, 63
AS42□1-04	R 1/2				●	●	63, 80, 100

Note 1) ●: Brass parts are electroless nickel plated, provided as standard. (N specifications)

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)
Number of needle rotations	10 turns (8 turns ⁽¹⁾)
Applicable tubing material	Nylon, Soft nylon, Polyurethane
Option	Round lock nut, Electroless nickel plated ⁽²⁾

Meter-out and meter-in types can be visually differentiated by the lock nut.

The lock nut on the meter-out type is zinc chromated while the meter-in type is black zinc chromate plated.

Note 1) M5 size

Note 2) Brass parts are all electroless nickel plated.

How to Order

AS 3 2 0 1 - 03 - F 06 S □ - □ - □

Speed controller

Body size

1	M5 standard
2	01, 02 standard
3	03 standard
4	04 standard

Elbow

Control method

0	Meter-out
1	Meter-in

Thread size

M5	M5 x 0.8
01	R 1/8
02	R 1/4
03	R 3/8
04	R 1/2

With One-touch fitting

Tube size Note)

04	ø4
06	ø6
08	ø8
10	ø10
12	ø12

Note) For applicable tubing O.D. selection, refer to the Model.

Option

Nil	None
N	Electroless nickel plated

With seal

Lock nut option

Nil	Hexagon lock nut
J	Round lock nut

Made to Order
Refer to page 428 for details.

Note) M5 size: S (with seal) is not necessary.

AS

ASP

ASN

AQ

ASV

AK

VCHC

ASS

ASR

ASQ

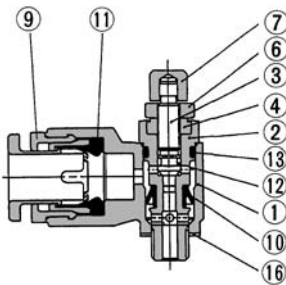
KE

TMH

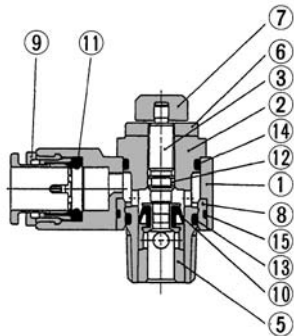
Series AS

Construction

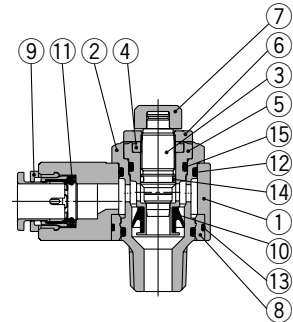
AS1201-M5



AS2201/3201/4201



AS3201-02



Component Parts

No.	Description	Material	Note
1	Body A	Zinc alloy	Chromate plated
2	Body B	Brass	Electroless nickel plated
3	Needle	Brass	Electroless nickel plated
4	Needle guide	Brass	Electroless nickel plated only with M5
5	Seat ring	Brass	(1)
6	Lock nut	Steel	Zinc chromated (2)
7	Handle	Brass	Electroless nickel plated
8	Bushing	PBT	
9	Cassette	PBT/Stainless steel	
10	U-packing	HNBR	
11	Seal	NBR	
12	O-ring	NBR	
13	O-ring	NBR	
14	O-ring	NBR	
15	O-ring	NBR	
16	Gasket	NBR/Stainless steel	M5 port only

Note 1) "AS22□□1": Electroless nickel plated
Note 2) Meter-in type: Black zinc chromated

Made to Order



1 Lubricant: Vaseline **X12**

Ex.) AS1201-M5-F04-X12

2 Grease-free (Seal: Fluorine Coating) + Throttle Valve (Without Check Valve) **X21**

Ex.) AS1201-M5-F04-X21

Note 1) Not particle-free
Note 2) Throttle valve is only compatible with the part no. of the meter-out type.

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

Ex.) AS1201-M5-F04-X214

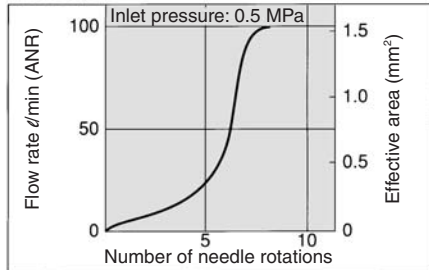
Note) Throttle valve is only compatible with the part no. of the meter-out type.

Flow Rate and Effective Area

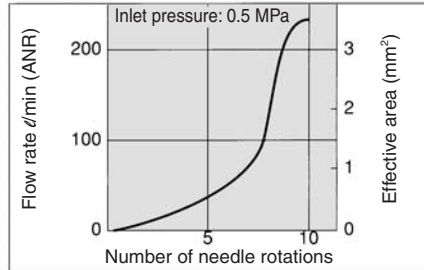
Model		AS12□1-M5	AS22□1-01	AS22□1-02		AS32□1		AS42□1-04	
Tubing O.D.		ø4, ø6	ø6, ø8	ø6	ø8	ø8	ø10	ø10	ø12
Controlled (Free) flow	Flow rate (ℓ/min (ANR))	100	230	390	460	790	920	1580	1710
	Effective area (mm ²)	1.5	3.5	6	7	12	14	24	26

Needle Valve/Flow Characteristics

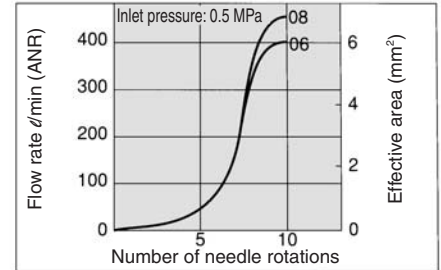
AS12□1



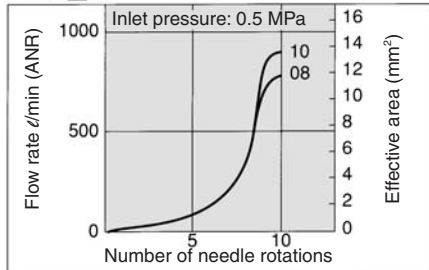
AS22□1-01



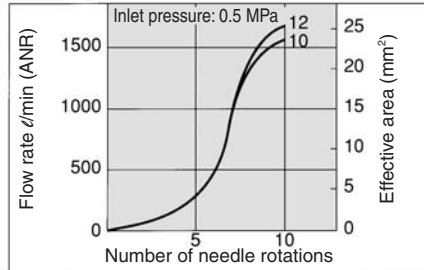
AS22□1-02



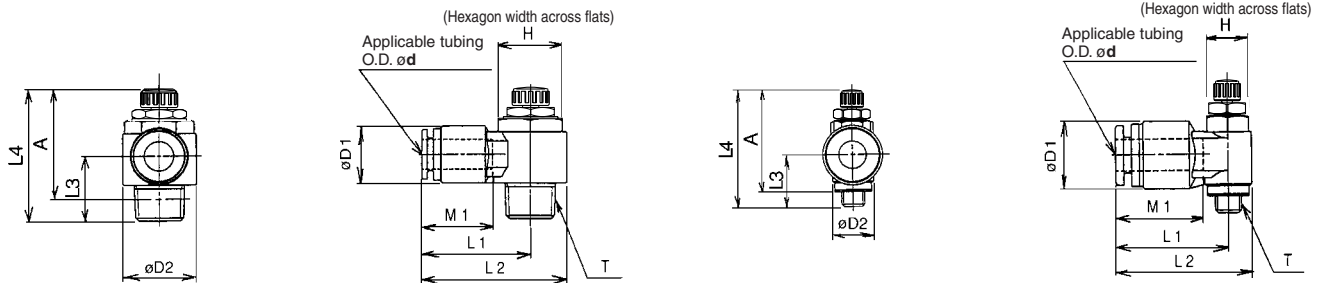
AS32□1



AS42□1



Dimensions



Model	Applicable tubing O.D. ød	T	H	D1	D2	L1	L2	L3	L4 ⁽¹⁾		A ⁽²⁾		M1	Mass (g)
									Max.	Min.	Max.	Min.		
AS12□1-M5-F04	4	M5 x 0.8	8	13	9	21	25.5	11.2	28.3	25.5	25	22.2	16	13
AS12□1-M5-F06	6					21.5	26						17	13
AS22□1-01-F06S	6	R 1/8	12	15.5	14.6	26.6	33.9	13.8	35.5	30.5	32.4	27.4	17	34
AS22□1-01-F08S	8												18.5	31
AS22□1-02-F06S	6	R 1/4	17	15.5	19.5	28.7	38.5	17.2	40.3	35.3	34.8	29.8	17	56
AS22□1-02-F08S	8												18.5	52
AS32□1-02-F08S	8	R 1/4	19	18.2	24.3	32.7	44.9	21	48.3	43.3	42.8	37.8	18.5	86
AS32□1-02-F10S	10					33.3	45.5						21	81
AS32□1-03-F08S	8	R 3/8	19	18.2	24.3	32.7	44.9	19	45.8	40.8	40.6	35.6	18.5	93
AS32□1-03-F10S	10					33.3	45.5						21	88
AS42□1-04-F10S	10	R 1/2	24	22.3	28.5	36.1	50.4	24.6	54.7	49.7	47.4	42.4	21	154
AS42□1-04-F12S	12												22	146

Note 1) Reference dimensions

Note 2) Reference dimensions of thread M5, R after installation.

⚠ Caution

Be sure to read before handling.
Refer to front matters 58 and 59 for Safety Instructions and pages 412 to 414 for Flow Control Equipment Precautions.