

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

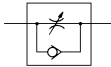
Series AS

Speed controller with One-touch fittings for metal body specifications

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



Symbol



Made to Order
(Refer to page 498 for details.)

Model

Model	Port size	Applicable tubing O.D.				
		4	6	8	10	12
AS12□1-M5	M5 x 0.8	●	●			
AS22□1-01	R 1/8		●	●		
AS22□1-02	R 1/4		●	●	●	
AS32□1-02	R 1/4			●	●	●
AS32□1-03	R 3/8			●	●	
AS42□1-04	R 1/2				●	●

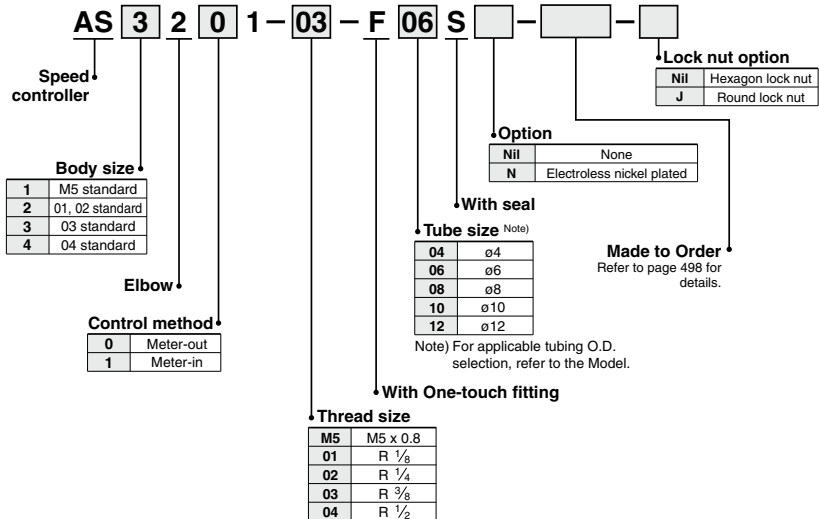
Note 1) ●: Brass parts are electroless nickel plated, provided as standard. (N specifications)

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)
Applicable tubing material	Nylon, Soft nylon, Polyurethane
Option	Round lock nut, Electroless nickel plated ^{Note)}

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 (the round lock nut is electroless nickel plated) while the meter-in type is black zinc chromate plated.
Note) Brass parts are all electroless nickel plated.

How to Order

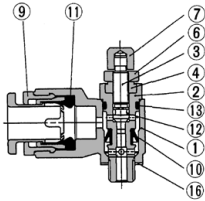


Note) M5 size: S (with seal) is not necessary.

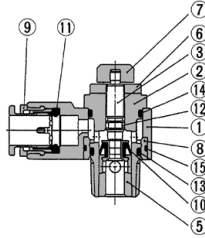
Series AS

Construction

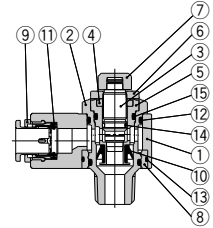
AS1201-M5



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	(1)
5	Seat ring	Brass	(2)
6	Lock nut	Steel (3)	Meter-out Zinc chromate plated (Note 4) Meter-in Black zinc chromate plated
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) M5 type, AS32□1-02 type: Electroless nickel plated.

Note 2) AS22□1 type, AS32□ type: Electroless nickel plated.

Note 3) The material of the lock nut option-J (round type) is brass. However, note that only the AS22□1F uses steel.

Note 4) The surface treatment of the lock nut option-J (round type) is electroless nickel plating.

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.

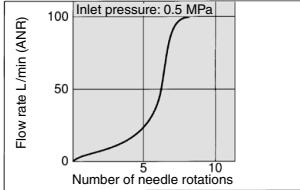
Flow Rate and Sonic Conductance

Model		AS12□1-M5	AS22□1-01	AS22□1-02		AS32□1		AS42□1-04	
Tubing O.D.		ø4, ø6	ø6, ø8	ø6	ø8, ø10	ø8	ø10	ø10	ø12
Controlled flow	Flow rate (L/min (ANR))	100	230	390	460	790	920	1580	1710
Free flow	Sonic conductance dm ³ /(s·bar)	0.3	0.7	1.2	1.4	2.4	2.8	4.8	5.2
Critical pressure ratio	Controlled	0.2	0.25	0.3		0.25		0.25	
	Free	0.4	0.2	0.3		0.2		0.3	

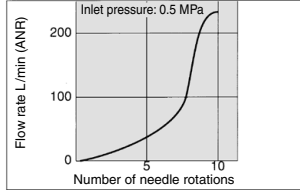
Needle Valve/Flow Characteristics

Note) The flow characteristics are representative values.

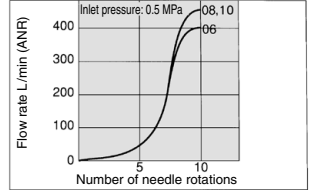
AS12□1



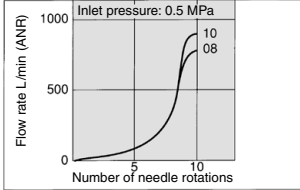
AS22□1-01



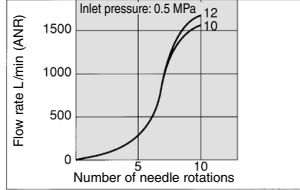
AS22□1-02



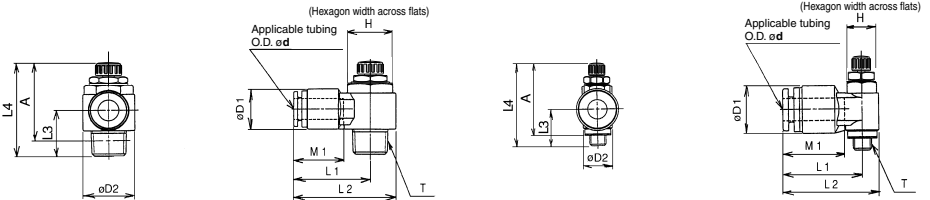
AS32□1



AS42□1



Dimensions



Model	Applicable tubing O.D. ød	T	H	D1	D2	L1	L2	L3	L4 ⁽¹⁾		A ⁽²⁾		M1	Weight (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
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	54		
AS22□1-02-F08S	8														18.5	50
AS22□1-02-F10S	10														18.2	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	21	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
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		
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 matter 56 for Safety Instructions and pages 468 to 471 for Flow Control Equipment Precautions.