

Flame Resistant (Equivalent to UL-94 Standard V-0) Speed Controller with One-touch Fittings Elbow Type

AS Series

Minimizes installation time
and cost

Tube swivels 360°

Application to inch size tubing

- Metric size
ø6, ø8, ø10, ø12

Maximum operating pressure
1 MPa max.

Applicable tubing materials
FR double layer, FR soft nylon

Comes standard with seal.

Model

Elbow type	Port size	Applicable tubing O.D. (mm)			
		6	8	10	12
AS12□1F-M5-W2	M5	●			
AS22□1F-01-□W2	R1/8	●	●	●	
AS22□1F-02-□W2	R1/4	●	●	●	
AS32□1F-02-□W2	R1/4	●	●	●	●
AS32□1F-03-□W2	R3/8	●	●	●	●
AS42□1F-04-□W2	R1/2			●	●

Note 1) 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 2) ●: Brass parts are electroless nickel plated, provided as standard. (N specifications)

Specifications

Fluid	Air
Proof pressure	1.5 MPa
Max. operating pressure	1 MPa
Mini. operating pressure	0.1 MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)
Applicable tubing material ^{Note)}	FR double layer, FR soft nylon

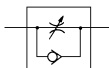
Note) Use caution regarding the max. tubing operating pressure.

(Refer to pages 483 and 484 for details.)

Elbow type



Symbol



Flow Direction Symbols on Body

	Meter-out type	Meter-in type
Indication symbol		
Symbol		

Flow Rate and Sonic Conductance

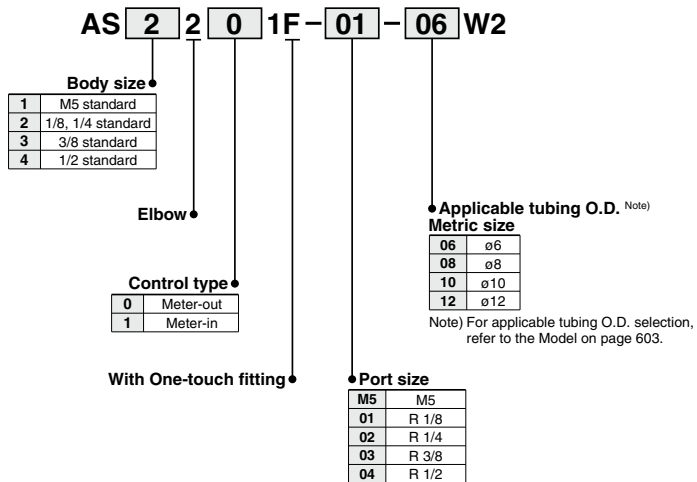
Model	AS12□1F-M5		AS22□1F-01		AS22□1F-02		AS32□1F			AS42□1F	
	ø6	ø6, ø8, ø10	ø4	ø6	ø8, ø10	ø6	ø8	ø10, ø12	ø10	ø12	
Tubing O.D. (mm)											
Controlled flow	Flow rate L/min (ANR)	100	230	260	390	460	660	790	920	1580	1710
	Sonic conductance dm ³ /(s·bar)	0.28	0.64	0.72	1.1	1.3	1.8	2.2	2.6	4.4	4.8
Critical pressure ratio	Controlled flow	0.2	0.25	0.3		0.25			0.25		
	Free flow	0.4	0.2	0.3		0.2			0.3		

Note) Flow rate values are measured at 0.5 MPa and 20°C.

⚠ Caution

Be sure to read this before handling the products.
Refer to back page 50 for Safety Instructions and pages 543 to 546 for Flow Control Equipment Precautions.

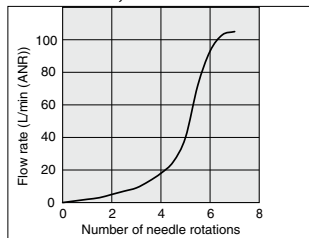
How to Order



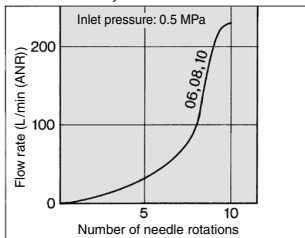
Needle Valve/Flow Rate Characteristics

Note) The flow rate characteristics are representative values.

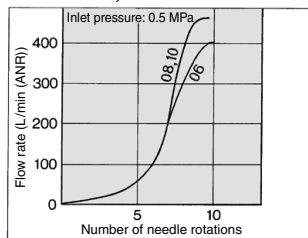
AS1201F-M5, AS1211F-M5



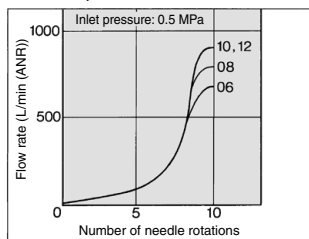
AS2201F-01, AS2211F-01



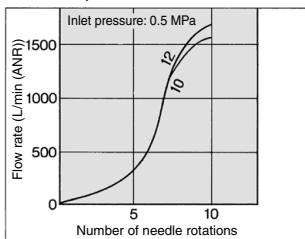
AS2201F-02, AS2211F-02



AS3201F, AS3211F



AS4201F, AS4211F



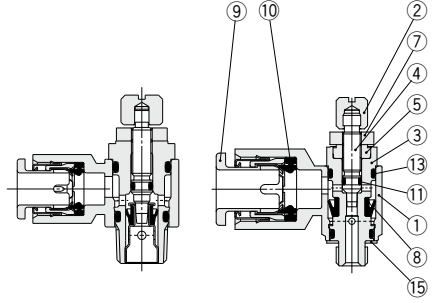
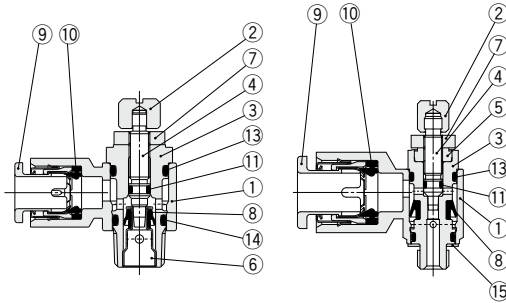
Construction

Meter-out type

Meter-in type

M5 type

M5 type

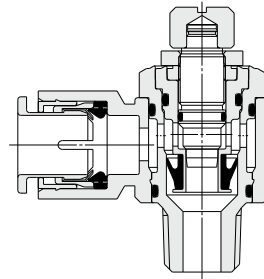
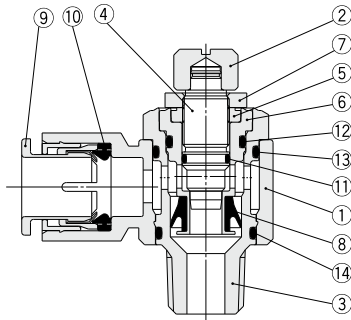


- AS-F
- TMH
- ASD
- AS
- AS-FE
- KE
- AS-FG
- AS-FP
- AS-FM
- AS-D
- AS-T
- ASP
- ASN
- AQ
- ASV
- AK
- VCHC
- ASR
- ASQ

AS32□1F-02

Meter-out type AS3201F-02

Meter-in type AS3211F-02



Component Parts

No.	Description	Material	Note
1	Body A	Flame-resistant PBT	
2	Handle	Brass	Electroless nickel plated
3	Body B	Brass	Electroless nickel plated
4	Needle	Brass	Electroless nickel plated
5	Needle guide	Brass	Electroless nickel plated
6	Seat ring	Brass	(1)
7	Lock nut	Steel	Meter-out Zinc chromate plated Meter-in Black zinc chromate plated
8	U-packing	HNBR	
9	Cassette	—	
10	Seal	NBR	
11	O-ring	NBR	
12	O-ring	NBR	
13	O-ring	NBR	
14	O-ring	NBR	
15	Gasket	Stainless steel, NBR	

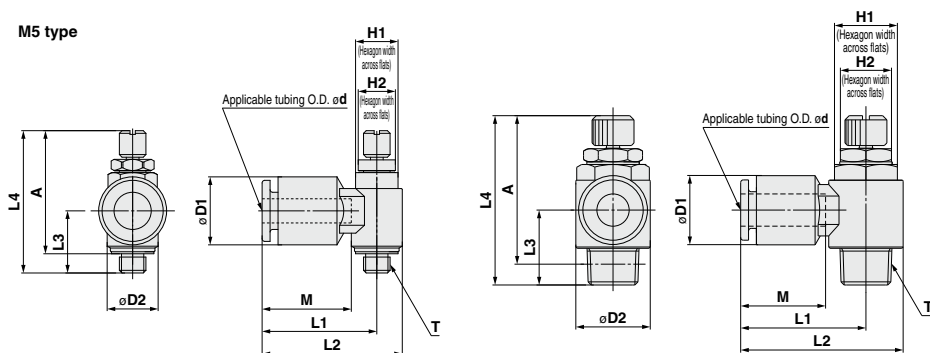
Note 1) AS22□1F, AS32□1F: Electroless nickel plated.

AS Series



Elbow Type

M5 type



Metric Size

Model	Applicable tubing O.D. ød	T	H1	H2	D1	D2	L1	L2	L3	L4 ⁽¹⁾		A ⁽²⁾		M	Weight (g)
										Max.	Min.	Max.	Min.		
AS12□1F-M5-06W2	6	M5 x 0.8	8	6	11.6	9.6	18.1	22.9	11.7	28.8	26	25.2	22.4	13.5	9
AS22□1F-01-06W2	6	R 1/8	12	10	13.2	14.2	23.9	31	13.4	36.4	31.4	33.3	28.3	17	19
AS22□1F-01-08W2	8				15.2		25.3	32.4						18.5	21
AS22□1F-01-10W2	10	R 1/4	17	12	18.5	18.5	32.1	39.2	15.2	41.1	36.1	35.6	30.6	21	23
AS22□1F-02-06W2	6				13.2		25.2	34.4	17					34	
AS22□1F-02-08W2	8				15.2		27.2	36.4	18.5					36	
AS22□1F-02-10W2	10				18.5		35.3	44.5	21					38	
AS32□1F-02-06W2	6	R 1/4	19	14	13.2	23	27.8	39.3	21.3	49.9	44.9	44.4	39.4	17	63
AS32□1F-02-08W2	8				15.2		29.5	41						18.5	65
AS32□1F-02-10W2	10				18.5		31.5	43.1						21	67
AS32□1F-02-12W2	12				20.9		32.8	44.3						22	69
AS32□1F-03-06W2	6	R 3/8	19	14	13.2	23	27.8	39.3	19.8	47.4	42.4	42.4	37.4	17	58
AS32□1F-03-08W2	8				15.2		29.5	41						18.5	60
AS32□1F-03-10W2	10				18.5		31.5	43.1						21	62
AS32□1F-03-12W2	12				20.9		32.8	44.3						22	64
AS42□1F-04-10W2	10	R 1/2	24	17	18.5	28.6	33.6	47.9	24.5	58.7	51.2	51.4	43.9	21	101
AS42□1F-04-12W2	12				20.9		35.2	49.5						22	107

Note 1) Reference dimensions

Note 2) Reference thread dimensions after installation.