

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

Series AS

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

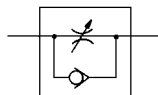
Retainer prevents accidental loss of needle.

Comes standard with seal.

Elbow type



JIS Symbol



Flow Direction Symbols on Body

	Meter-out type	Meter-in type
Indication symbol		
Symbol		

Model

Elbow type	Port size	Applicable tubing O.D. (mm)				Applicable cylinder bore size (mm)
		6	8	10	12	
AS22□1F-01-□W2	R 1/8	●	●	●		20, 25, 32
AS22□1F-02-□W2	R 1/4	●	●	●		20, 25, 32, 40
AS32□1F-02-□W2	R 1/4	●	●	●	●	40, 50, 63
AS32□1F-03-□W2	R 3/8	●	●	●	●	40, 50, 63
AS42□1F-04-□W2	R 1/2			●	●	63, 80, 100

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)
Number of needle rotations	10 turns
Applicable tubing material ^{Note)}	FR double layer, FR soft nylon

Note) Use caution regarding the max. tubing operating pressure.
(Refer to pages 379 and 380 for details.)

Flow Rate and Effective Area

Model		AS22□1F-01			AS22□1F-02			AS32□1F			AS42□1F	
Tubing O.D. (mm)		ø6, ø8, ø10			ø4, ø6, ø8, ø10			ø6, ø8, ø10, ø12			ø10, ø12	
Controlled flow (Free flow)	Flow rate l/min (ANR)	230	260	390	460	660	790	920	1580	1710		
	Effective area (mm ²)	3.5	4	6	7	10	12	14	24	26		

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

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.

AS

ASP

ASN

AQ

ASV

AK

VCHC

ASS

ASR
ASQ

KE

TMH

How to Order

AS2201F-01-06W2

Body size

2	1/8, 1/4 standard
3	3/8 standard
4	1/2 standard

Elbow

Control type

0	Meter-out
1	Meter-in

With One-touch fitting

Applicable tubing O.D. Note)

Metric size

06	ø6
08	ø8
10	ø10
12	ø12

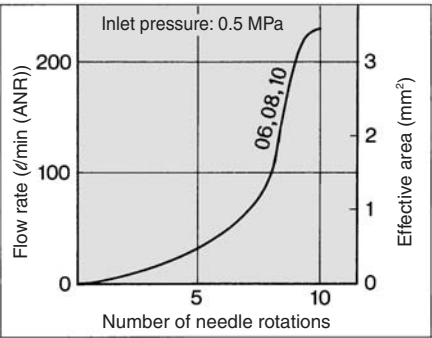
Note) For applicable tubing O.D. selection, refer to the Model on page 423.

Port size

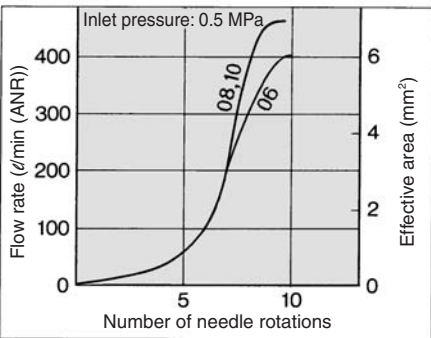
01	R 1/8
02	R 1/4
03	R 3/8
04	R 1/2

Needle Valve/Flow Characteristics

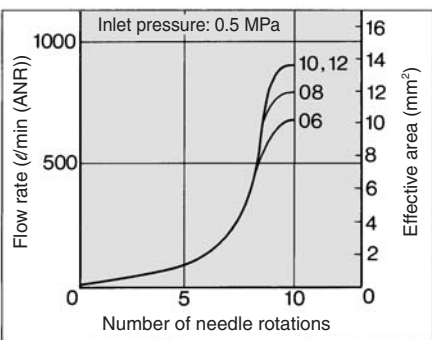
AS2201F-01, AS2211F-01



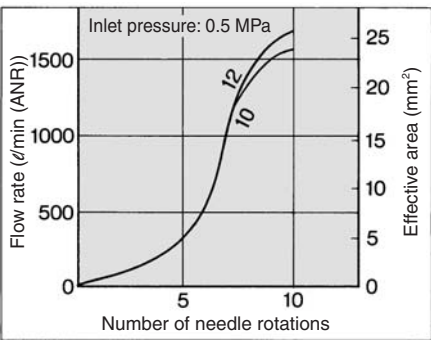
AS2201F-02, AS2211F-02



AS3201F, AS3211F

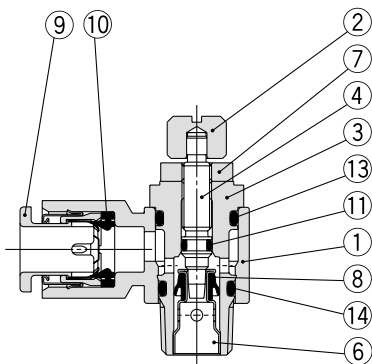


AS4201F, AS4211F

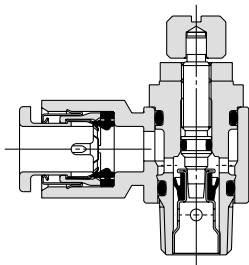


Construction

Meter-out type

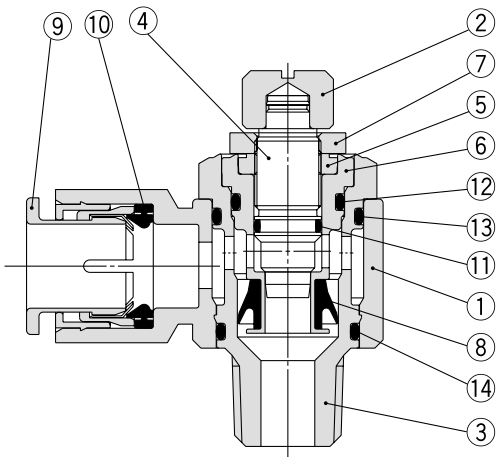


Meter-in type

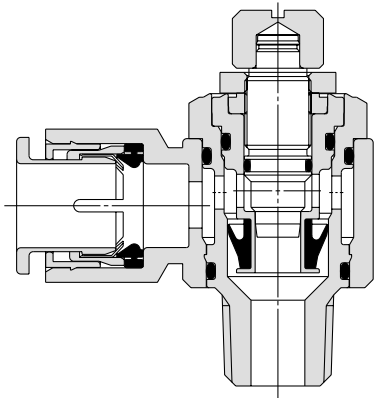


AS32□1F-02

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	Zinc chromated (2)
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	

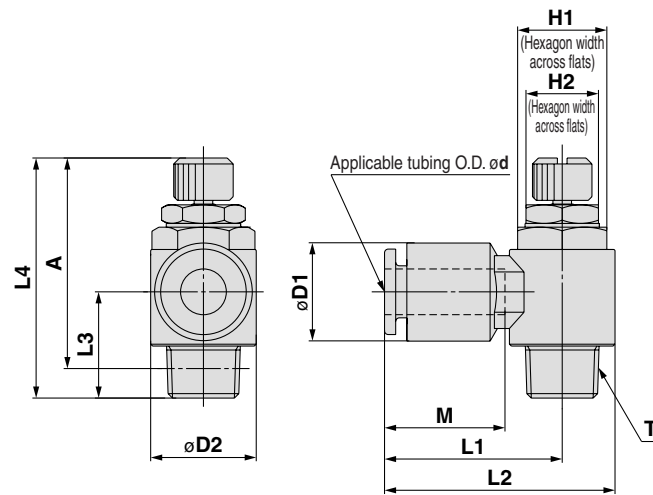
Note 1) AS22□1F, AS32□1F-02: Electroless nickel plated.
Note 2) Meter-in type is black zinc chromate plated.

- AS
- ASP
- ASN
- AQ
- ASV
- AK
- VCHC
- ASS
- ASR
ASQ
- KE
- TMH

Series AS



Elbow Type



Metric Size

Model	Applicable tubing O.D. ød	T	H1	H2	D1	D2	L1	L2	L3	L4 ⁽¹⁾		A ⁽²⁾		M	Mass (g)
										Max.	Min.	Max.	Min.		
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				18.5		32.1	39.2						15.2	21
AS22□1F-02-06W2	6	R 1/4	17	12	13.2	18.5	25.2	34.4	17.7	41.1	36.1	35.6	30.6	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						18.3	21
AS32□1F-02-06W2	6		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.