

# 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**

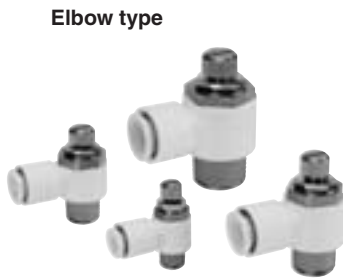
- Metric size  
ø6, ø8, ø10, ø12

**Maximum operating pressure 1 MPa max.**

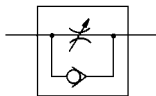
**Applicable tubing materials**  
FR double layer, FR soft nylon

**Retainer prevents accidental loss of needle.**

**Comes standard with seal.**



JIS Symbol



**Flow Direction Symbols on Body**

	Meter-out type	Meter-in type
Symbol		
JIS 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 electroless nickel plated, while the meter-in type is black zinc chromate plated.

Note 2) ● Marking is 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 <sup>Note)</sup>	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	
	ø6, ø8, ø10	ø4	ø6	ø8, ø10	ø6	ø8	ø10, ø12	ø10	ø12		
Controlled flow	Flow rate l/min (ANR)	230	260	390	460	660	790	920	1580	1710	
(Free flow)	Effective area (mm <sup>2</sup> )	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

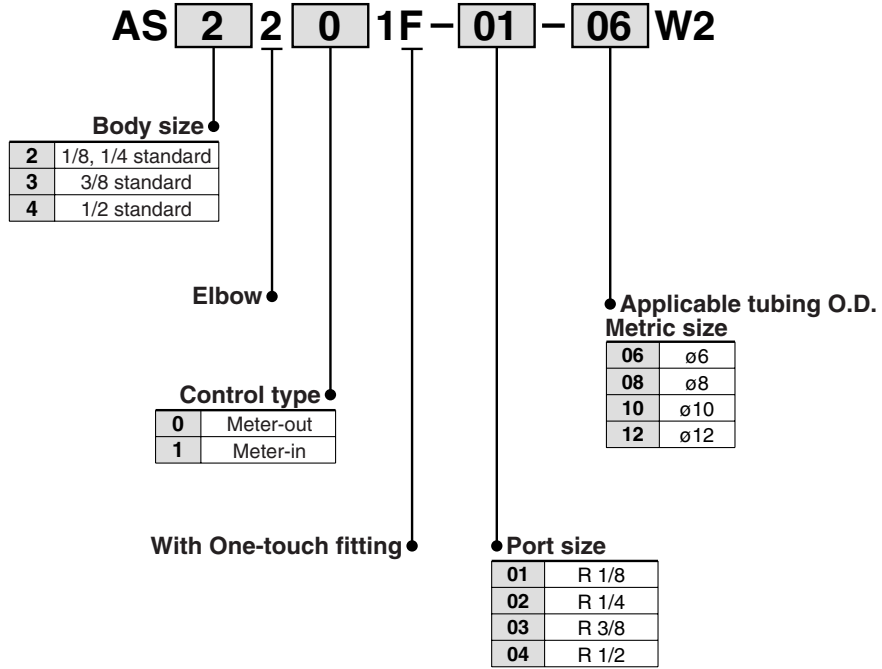
ASS

ASR  
ASQ

KE

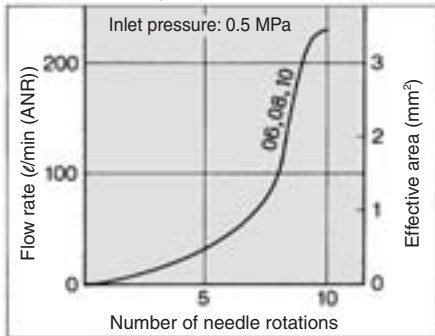
TMH

## How to Order

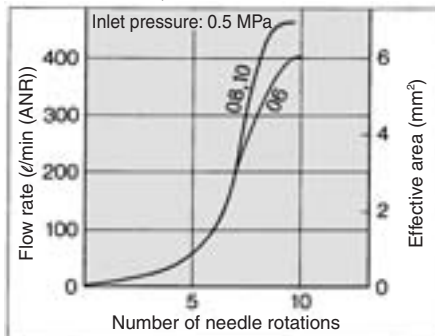


## Needle Valve/Flow Characteristics

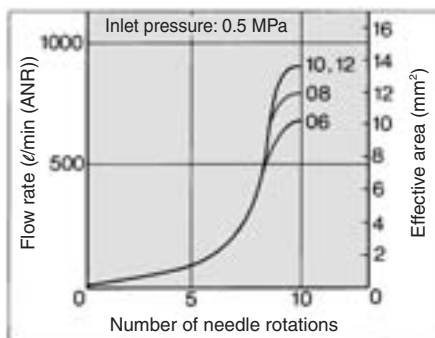
AS2201F-01, AS2211F-01



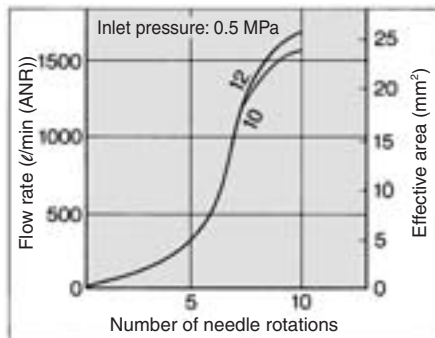
AS2201F-02, AS2211F-02



AS3201F, AS3211F

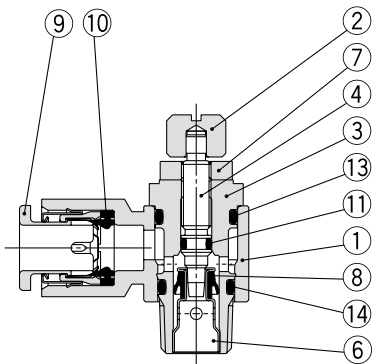


AS4201F, AS4211F

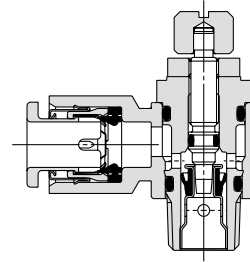


**Construction**

**Meter-out type**

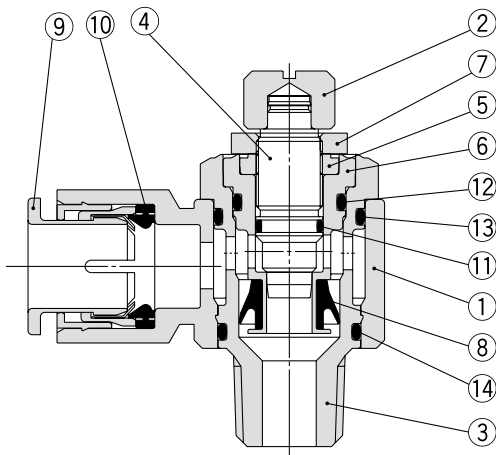


**Meter-in type**

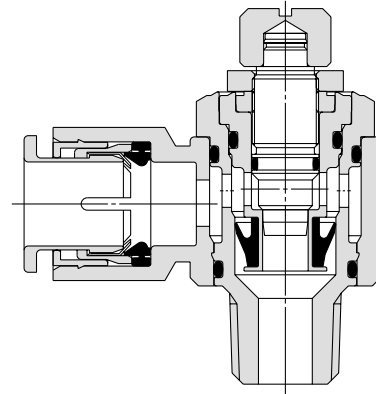


**AS32□1F-02**

**Meter-out type AS3201F-02**



**Meter-in type AS3211F-02**



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

**Component Parts**

No.	Description	Material	Note
1	<b>Body A</b>	Flame-resistant PBT	
2	<b>Handle</b>	Brass	Electroless nickel plated
3	<b>Body B</b>	Brass	Electroless nickel plated
4	<b>Needle</b>	Brass	Electroless nickel plated
5	<b>Needle guide</b>	Brass	Electroless nickel plated
6	<b>Seat ring</b>	Brass	(1)
7	<b>Lock nut</b>	Brass	Electroless nickel plated (2)
8	<b>U-packing</b>	HNBR	
9	<b>Cassette</b>	—	
10	<b>Seal</b>	NBR	
11	<b>O-ring</b>	NBR	
12	<b>O-ring</b>	NBR	
13	<b>O-ring</b>	NBR	
14	<b>O-ring</b>	NBR	

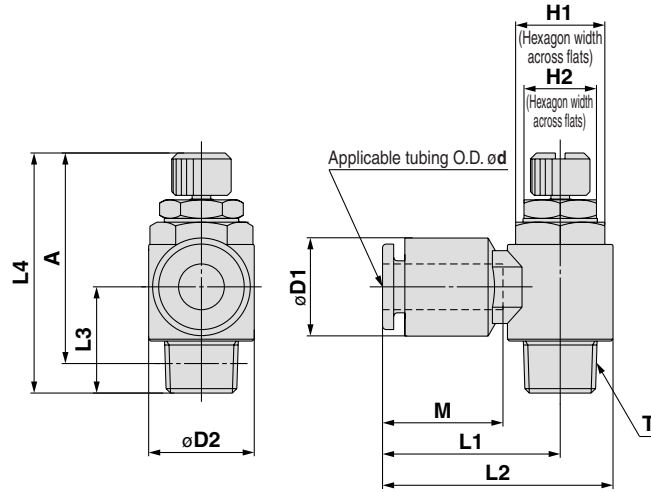
Note 1) AS22□1F, AS32□1F-02: Electroless nickel plated.

Note 2) Meter-in type is black zinc chromate plated.

# Series AS



## Elbow Type



### Metric Size

Model	Applicable tubing O.D. ød	T	H1	H2	D1	D2	L1	L2	L3	L4 <sup>(1)</sup>		A <sup>(2)</sup>		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	23
AS22□1F-01-10W2	10				18.5		32.1	39.2						15.2	21	23
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	18.5	36
AS22□1F-02-10W2	10				18.5		35.3	44.5						18.3	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.