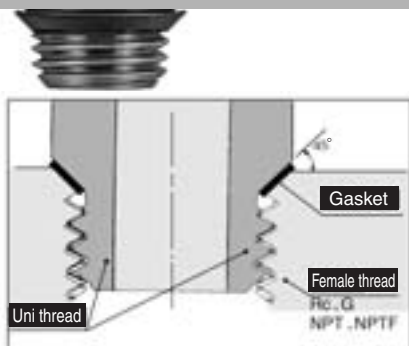


Speed Controller with Uni One-touch Fitting Series AS

New-stand male threads for piping that reduces the screw-in time by 1/3.



Shape of Uni thread ridge

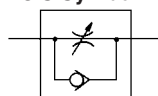
Use of the chamfered surface of the female thread as the seat surface and adoption of gaskets made by laminating NBR on both surfaces of stainless steel plates achieve secure sealing regardless of the difference of diameters due to the female thread type, deviations due to the tolerance, or the size of the chamfered corner.
(Any standard chamfered female thread can be used.)

A ridge shape has been created as a Uni thread for common applications for Rc, G, NPT and NPTF.

The male thread for piping drastically cuts piping man-hours.



JIS Symbol



Flow Direction Symbols on Body

	Meter-out type	Meter-in type
Symbol		
JIS Symbol		

Model

Model		Connection thread Uni thread	Applicable tubing O.D.													
Elbow type	Universal type		Metric size						Inch size							
			3.2	4	6	8	10	12	1/8"	5/32"	3/16"	1/4"	5/16"	3/8"	1/2"	
AS22□IF-U01	AS23□IF-U01	1/8	●	●	●	●	●	●		●	●	●	●	●		
AS22□IF-U02	AS23□IF-U02	1/4		●	●	●	●	●			●	●	●	●	●	
AS32□IF-U02	AS33□IF-U02	1/4			●	●	●	●	●				●	●	●	
AS32□IF-U03	AS33□IF-U03	3/8			●	●	●	●					●	●	●	
AS42□IF-U04	AS43□IF-U04	1/2						●	●						●	

Note 1) * Elbow type only

Note 2) □ indicates the control type ("0" for meter-out and "1" for meter-in).

Note 3) 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 that on the meter-in type is black zinc chromate plated.

Note 4) Models marked with "●" are nickel plated as standard.

Specifications

Fluid	Air
Max. operating pressure	1 MPa
Min. operating pressure	0.1 MPa
Proof pressure	1.5 MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)
Number of needle rotations	10 turns
Applicable tubing material ⁽¹⁾	Nylon, Soft-nylon, Polyurethane
Mounting thread	Uni-thread
Thread seal	Gasket
Option	Hexagon lock nut, Electroless nickel plated ⁽²⁾

Note 1) Use caution regarding the max. operating pressure when soft nylon or polyurethane tubing is used.
(Refer to pages 371 and 372 for details.)

Note 2) Brass parts are all electroless nickel plated.

Flow Rate and Effective Area

Model		AS22□IF-U01 AS23□IF-U02		AS22□IF-U02 AS23□IF-U02			AS32□IF AS33□IF			AS42□IF-U04 AS43□IF-U04	
Tubing O.D.	Metric size	ø3.2, ø4	ø6, ø8, ø4	ø4	ø6	ø8, ø10	ø6	ø8	ø10, ø12	ø10	ø12
	Inch size	1⁄8", 5⁄32	3⁄16", 1⁄4" 5⁄16"	5⁄32	3⁄16	1⁄4", 5⁄16" 3⁄8"	1⁄4"	5⁄16	3⁄8"	3⁄8"	1⁄2"
Controlled flow (Free flow)	Flow rate (ℓ/min (ANR))	180	230	260	390	460	660	790	920	1580	1710
	Effective area (mm²)	2.7	3.7	4	6	7	10	12	14	24	26

Note 1) Flow rate values are measured at 0.5 MPa and 20°C.

Note 2) □ indicates the control type ("0" for meter-out and "1" for meter-in).

How to Order

AS 2 2 1 1F - U02 - 06 - - -

Body size

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

Type

2	Elbow
3	Universal

Control type

0	Meter-out
1	Meter-in

With One-touch fitting

Made to Order

X260 Antistatic type
Refer to page 450 for details.

Option*

Nil	None
K	Hexagonal lock nut
N	Electroless nickel plated

* If more than one option is required, write option part numbers in the order of "K", "N".

Applicable tubing O.D.

Metric size		Inch size	
23	ø3.2 *	01	1/8"
04	ø4	03	5/32"
06	ø6	05	3/16"
08	ø8	07	1/4"
10	ø10	09	5/16"
12	ø12	11	3/8"
		13	1/2"

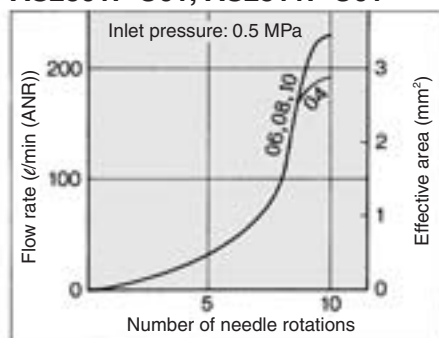
* Use ø1/8" tube.

Bore size

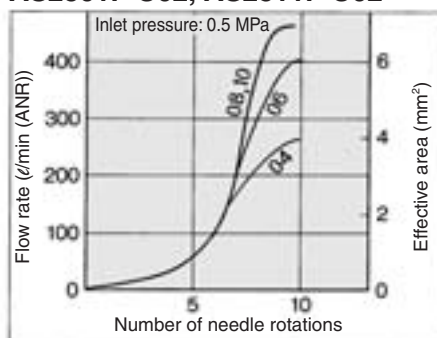
U01	Uni 1/8
U02	Uni 1/4
U03	Uni 3/8
U04	Uni 1/2

Needle Valve/Flow Characteristics

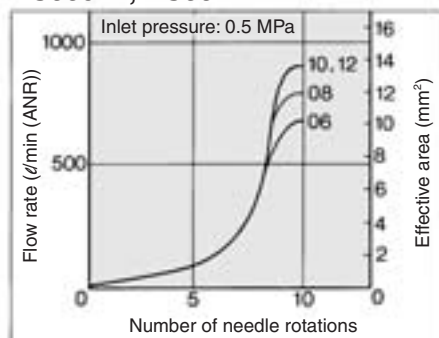
AS2201F-U01, AS2211F-U01
AS2301F-U01, AS2311F-U01



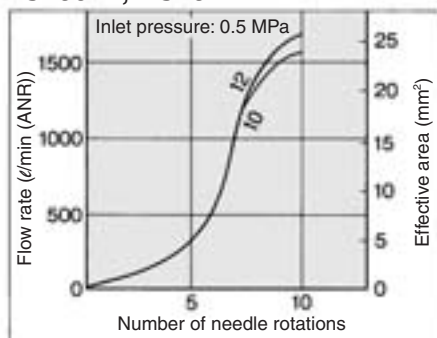
AS2201F-U02, AS2211F-U02
AS2301F-U02, AS2311F-U02



AS3201F, AS3211F
AS3301F, AS3311F

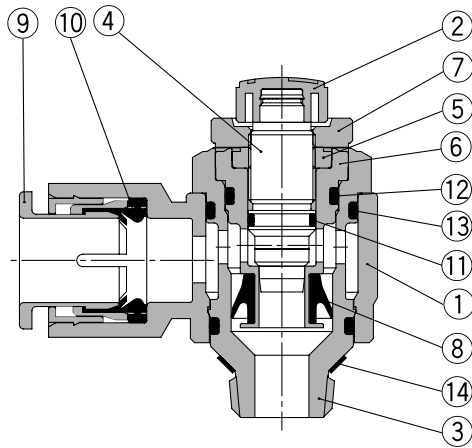


AS4201F, AS4211F
AS4301F, AS4311F

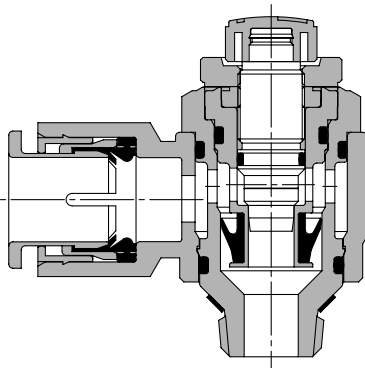


Construction/Component Parts

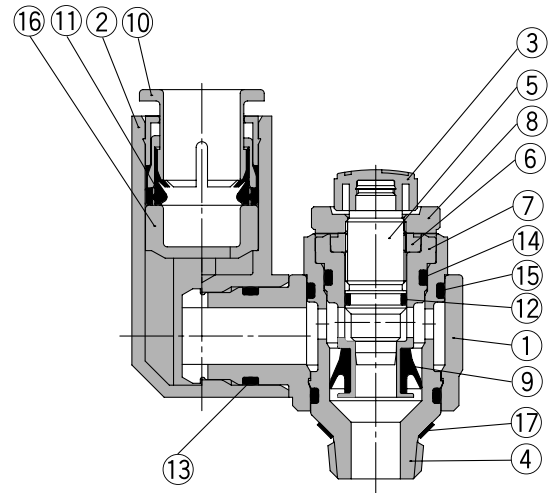
Elbow type Meter-out type



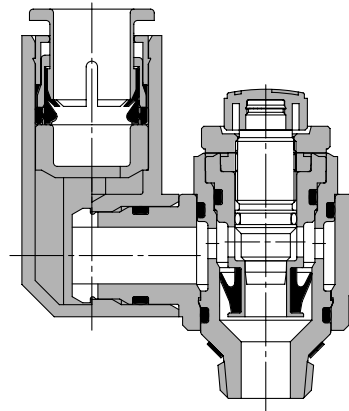
Meter-in type



Universal type Meter-out type



Meter-in type



Component Parts: Elbow Type

No.	Description	Material	Note
1	Body A	PBT	
2	Handle	PBT	
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	Brass ⁽²⁾	Electroless nickel plated ⁽³⁾
8	U seal	HNBR	
9	Cassette	—	
10	Seal	NBR	
11	O-ring	NBR	
12	O-ring	NBR	
13	O-ring	NBR	
14	Gasket	NBR, Stainless steel	

Note 1) Only AS22□1F-U01 and AS32□1F-U02 are electroless nickel plated.

Note 2) AS22□1F type is made of steel.

Note 3) Meter-in type is black zinc chromate plated.

Component Parts: Universal Type

No.	Description	Material	Note
1	Body A	PBT	
2	Elbow body	PBT	
3	Handle	PBT	
4	Body B	Brass	Electroless nickel plated
5	Needle	Brass	Electroless nickel plated
6	Needle guide	Brass	Electroless nickel plated
7	Seat ring	Brass	⁽¹⁾
8	Lock nut	Brass ⁽²⁾	Electroless nickel plated ⁽³⁾
9	U seal	HNBR	
10	Cassette	—	
11	Seal	NBR	
12	O-ring	NBR	
13	O-ring	NBR	
14	O-ring	NBR	
15	O-ring	NBR	
16	Spacer	—	
17	Gasket	NBR, Stainless steel	

Note 1) Only AS22□1F-U01 and AS32□1F-U02 are electroless nickel plated.

Note 2) AS22□1F type is made of steel.

Note 3) Meter-in type is black zinc chromate plated.

AS

ASP

ASN

AQ

ASV

AK

VCHC

ASS

ASR

ASQ

KE

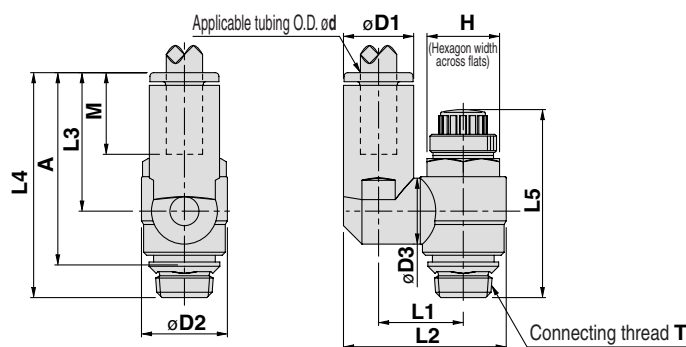
TMH

Elbow

Technical drawing of a Tee fitting showing dimensions and labels:

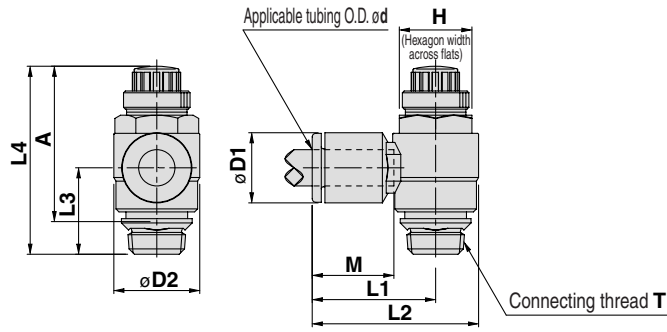
- L4**: Overall height of the fitting.
- A**: Height of the mounting flange.
- L3**: Height of the mounting flange from the base.
- øD2**: Diameter of the mounting flange.
- Applicable tubing O.D. ød**: Dimension for the tubing connected to the side port.
- øD1**: Diameter of the side port.
- H**: Hex width across flats of the side port.
- M**: Height of the mounting flange from the base.
- L1**: Length of the fitting from the base to the side port.
- L2**: Length of the fitting from the base to the end of the side port.
- Connecting thread T**: Thread specification for the side port.

Note 1) Reference dimensions
Note 2) Reference dimensions of Uni thread after installation.



Note 1) Reference dimensions
Note 2) Reference dimensions of Uni thread after installation.

Elbow Type/Inch Size

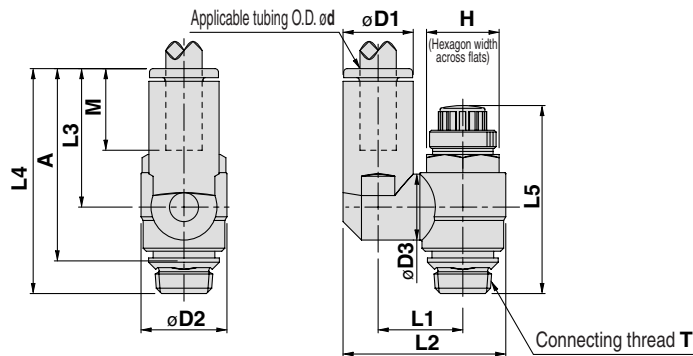


Model	Applicable tubing O.D. ød	T Uni thread	H	øD1	øD2	L1	L2	L3	L4 (1)		A (2)		M	Mass (g)
									Max.	Min.	Max.	Min.		
AS22□1F-U01-01	1/8"	1/8	12	7.8	14.2	20.8	27.9	14.3	36.1	31.1	30.5	25.5	14.5	17
AS22□1F-U01-03	5/32"			8.9		21.1	28.2						16.5	18
AS22□1F-U01-05	3/16"			11.4		23.1	30.2						17.0	19
AS22□1F-U01-07	1/4"			13.2		23.9	31.0						18.5	19
AS22□1F-U01-09	5/16"	1/4	17	15.2	18.5	25.3	32.4	17.2	39.4	34.4	32.0	26.6	14.5	32
AS22□1F-U02-03	5/32"			8.9		23.3	32.5						16.5	33
AS22□1F-U02-05	3/16"			11.4		24.9	34.2						17.0	33
AS22□1F-U02-07	1/4"			13.2		25.2	34.5						18.5	34
AS22□1F-U02-09	5/16"	1/4	19	15.2	23.0	27.2	36.4	20.3	45.9	40.9	38.1	33.1	21.0	36
AS22□1F-U02-11	3/8"			17.9		35.3	44.5						17.0	54
AS32□1F-U02-07	1/4"			13.2		27.8	39.3						18.5	55
AS32□1F-U02-09	5/16"			15.2		29.5	41.0						21.0	57
AS32□1F-U02-11	3/8"	3/8	19	17.9	23.0	31.8	43.3	19.4	45.0	40.0	37.6	32.6	17.0	54
AS32□1F-U03-07	1/4"			13.2		27.8	39.3						18.5	55
AS32□1F-U03-09	5/16"			15.2		29.5	41.0						21.0	57
AS32□1F-U03-11	3/8"			17.9		31.8	43.3						21.0	94
AS42□1F-U04-11	3/8"	1/2	24	17.9	18.6	33.6	47.9	22.4	54.6	47.1	44.5	37.0	22.0	96
AS42□1F-U04-13	1/2"			21.4		35.2	49.5							

Note 1) Reference dimensions

Note 2) Reference dimensions of Uni thread after installation.

Universal Type/Inch Size



Model	Applicable tubing O.D. ød	T Uni thread	H	øD1	øD2	øD3	L1	L2	L3	L4	L5 (1)		A (2)		M	Mass (g)
											Max.	Min.	Max.	Min.		
AS23□1F-U01-01	1/8"	1/8	12	7.8	14.2	9.3	13.4	24.8	18.9	33.2	36.1	31.1	30.5	25.5	14.5	17
AS23□1F-U01-03	5/32"			8.9											16.5	19
AS23□1F-U01-05	3/16"			11.4		10.3	14.2	27.0	21.5	35.9					17.0	20
AS23□1F-U01-07	1/4"			13.2		11.4	15.2	28.9	22.3	36.3					18.5	21
AS23□1F-U01-09	5/16"	1/4	17	15.2	18.5	12.9	16.2	30.9	24.7	38.2	39.4	34.4	32.0	26.6	14.5	32
AS23□1F-U02-03	5/32"			8.9		9.3	15.6	29.2	18.9	36.1					16.5	34
AS23□1F-U02-05	3/16"			11.4		10.3	16.4	31.1	21.5	38.8					17.0	34
AS23□1F-U02-07	1/4"			13.2		11.4	17.4	33.2	22.3	39.5					18.5	36
AS23□1F-U02-09	5/16"	1/4	19	15.2	23.0	12.9	18.3	35.2	24.4	40.8	45.9	40.9	38.1	33.1	29.4	39
AS23□1F-U02-11	3/8"			17.9			19.6	38.1	26.8	43.2					17.0	56
AS33□1F-U02-07	1/4"			13.2		11.4	19.6	37.7	22.3	44.2					18.5	57
AS33□1F-U02-09	5/16"			15.2		12.9	20.6	39.7	24.4	42.8	45.0	40.0	37.6	32.6	21.0	61
AS33□1F-U02-11	3/8"	3/8	19	17.9	23.0	16.2	22.5	42.9	28.3	47.7					21.0	61
AS33□1F-U03-07	1/4"			13.2		11.4	19.6	37.7	22.3	43.3					17.0	56
AS33□1F-U03-09	5/16"			15.2		12.9	20.6	39.7	24.4	42.8					18.5	57
AS33□1F-U03-11	3/8"			17.9		16.2	22.5	42.9	28.3	47.7	54.6	47.1	44.5	37.0	21.1	97
AS43□1F-U04-11	3/8"	1/2	24	17.9	28.6	16.2	25.3	48.6	28.3	50.7					22.0	100
AS43□1F-U04-13	1/2"			21.7		19.4	26.8	52.5	30.8	53.2						

Note 1) Reference dimensions

Note 2) Reference dimensions of Uni thread after installation.

Antistatic Type

X260

Model

Model	Applicable tubing O.D.			
	Metric size			
	4	6	8	10
AS22□1F-U01	●	●	●	●
AS22□1F-U02	●	●	●	●
AS32□1F-U03		●	●	

Note 1) Electroless nickel plated

How to Order

AS 2 2 1 1F - U02 - 06 - X260

Body size

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

Elbow type

Control type

0	Meter-out
1	Meter-in

With One-touch fitting

Applicable tubing O.D.

Metric size	
04	ø4
06	ø6
08	ø8
10	ø10

Port size

U01	Uni 1/8
U02	Uni 1/4
U03	Uni 3/8