

Speed Controller with One-touch Fitting

Push-lock Type

Elbow Type/Universal Type

AS Series



Model

Model		Port size	Seal method	Applicable tubing O.D.																				
Elbow type	Universal type			Metric size						Inch size														
				2 ^{Note 2)}	3.2	4	6	8	10	12	16	1/8"	5/32"	1/4"	5/16"	3/8"	1/2"							
AS12□1F-M5□	AS13□1F-M5□	M5 x 0.8	Gasket seal	● ^{Note 3)}	●	●	●							●	●	●								
AS12□1F-U10/32□	AS13□1F-U10/32□	10-32UNF	Gasket seal	● ^{Note 3)}	●	●	●							●	●	●								
AS22□1F-□01	AS23□1F-□01	R NPT	Sealant ^{Note 1)}	1/8			●	●	●	● ^{Note 3)}						●	●	●						
AS22□1F-□02	AS23□1F-□02			1/4		● ^{Note 3)}	●	●	●					● ^{Note 3)}	●	●	●	●	●					
AS32□1F-□02	AS33□1F-□02			1/4				●	●	●	●	●					●	●	●	●				
AS32□1F-□03	AS33□1F-□03			3/8				●	●	●	●	●					●	●	●	●				
AS42□1F-□04	AS43□1F-□04			1/2							●	●	●	● ^{Note 3)}						●	●	●		

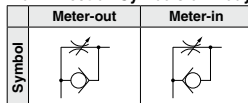
Note 1) "Without sealant" type can be selected as a standard option.

Note 2) Only polyurethane tubing is applicable for ø2.

Note 3) Universal type is not available.

Specifications

Flow Direction Symbols on Body



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 ^{Note)} , FEP, PFA

Note) Use caution at the max. operating pressure when using soft nylon or polyurethane tubing. (Refer to pages 678 and 682 for details.)

Flow Rate and Sonic Conductance

Caution

Be sure to read this before handling the products. Refer to page 11 for safety instructions, pages 19 to 22 for flow control equipment precautions, and pages 797 to 799 for specific product precautions.

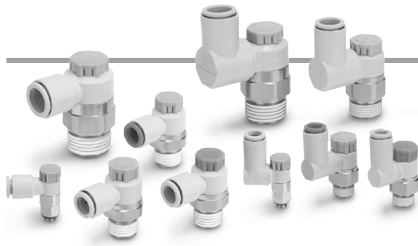
Model	AS12□1F-M5□	AS13□1F-M5□	AS22□1F-□01 ^{Note 3)}	AS23□1F-□01 ^{Note 3)}	AS22□1F-□02	AS23□1F-□02	AS32□1F	AS33□1F	AS42□1F	AS43□1F					
	Tubing O.D.	Metric size ø2 ø3.2 ø4 ø6	ø3.2	ø4	ø6 ø8 ø10	ø3.2	ø4	ø6	ø8 ø10	ø6	ø8 ø10 ø12	ø10	ø12 ø16		
	Inch size — ø1/8" ø1/4" ø5/32"	ø1/8"	ø1/4"	ø5/32" ø1/4" ø5/16"	ø1/8"	ø5/32"	—	ø1/4" ø5/16" ø3/8"	ø1/4"	ø5/16" ø3/8"	ø3/8"	ø1/2"			
C values: Sonic conductance	Free flow	0.2	0.3	0.4	0.6	0.6	0.7	1.0	1.3	1.5	1.6	1.7	2.5	4.4	4.8
	Controlled flow	0.2	0.3	0.4	0.7	0.8	0.6	0.9	1.3	2.1	2.4	3.3	4.4	4.9	
b values: Critical pressure ratio	Free flow	0.3	0.4	0.2	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3			
	Controlled flow		0.2	0.2	0.3		0.3		0.3	0.3	0.3				

Note 1) 10-32UNF has the same specification as M5.

Note 2) C and b values are for controlled flow with the needle fully open and free flow with the needle fully closed.

Note 3) The same specifications also apply to the AS-FG series (stainless steel type).

Speed Controller with One-touch Fitting **AS Series**



How to Order

Applicable tubing O.D. ^{Note 1)}

Metric size		Inch size	
02	ø2	01	ø1/8"
23	ø3.2 ^{Note 2)}	03	ø5/32"
04	ø4	07	ø1/4"
06	ø6		

Note 1) For selecting applicable tubing O.D., refer to the "Model" on page 778. Metric size and inch size types can be visually identified by color of the release button.

Metric size: Light gray
Inch size: Orange

Note 2) Use ø1/8" tube.

Width across flats (H)

E	8 mm
Nil	9 mm

Body size

1	M5 x 0.8 10-32UNF
---	----------------------

Port size

M5	M5 x 0.8
U10/32	10-32UNF

Body size 1

AS 1 2 0 1 F - M5 E - 06 A -

Body size 2/3/4

AS 2 2 0 1 F - 01 - 06 S A -

Body size

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

Type

2	Elbow
3	Universal

Control type ^{Note)}

0	Meter-out
1	Meter-in

Note) Meter-out and meter-in types can be visually identified by color of the knob.
Meter-out: Gray
Meter-in: Light blue

• **Made to Order**
Refer to pages 786 and 787 for details.

• **Push-lock type**

Seal method

Nil	Without sealant
S	With sealant

Applicable tubing O.D. ^{Note 1)}

Metric size		Inch size	
23	ø3.2 ^{Note 2)}	01	ø1/8"
04	ø4	03	ø5/32"
06	ø6	07	ø1/4"
08	ø8	09	ø5/16"
10	ø10	11	ø3/8"
12	ø12	13	ø1/2"
16	ø16		

Note 1) For selecting applicable tubing O.D., refer to the "Model" on page 778.

Note 2) Use ø1/8" tube.

Thread type

Nil	R
N	NPT

Port size

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

Made to Order

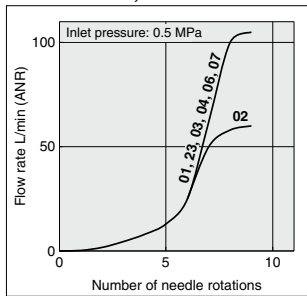
Made to Order

(For details, refer to pages 786 and 787.)

Symbol	Specifications
-X12	Lubricant: Vaseline
-X21	Grease-free (Seal: Fluorine-coated) + Restrictor (Without check valve)
-X214	Restrictor (Without check valve)
10-	Clean Series
-X778	Large Flow Type

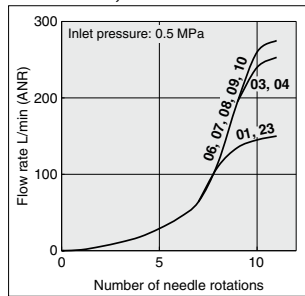
Needle Valve/Flow Rate Characteristics

AS1201F-M5□, AS1211F-M5□
AS1301F-M5□, AS1311F-M5□

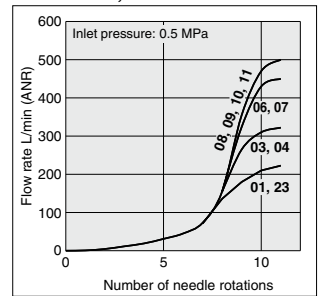


Note) -U10/32 has the same specification as M5.

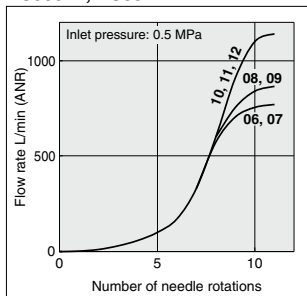
AS2201F-01, AS2211F-01
AS2301F-01, AS2311F-01



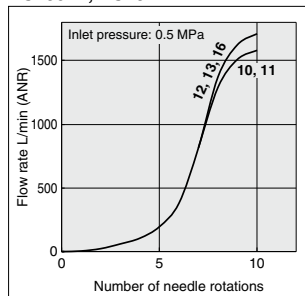
AS2201F-02, AS2211F-02
AS2301F-02, AS2311F-02



AS3201F, AS3211F
AS3301F, AS3311F



AS4201F, AS4211F
AS4301F, AS4311F

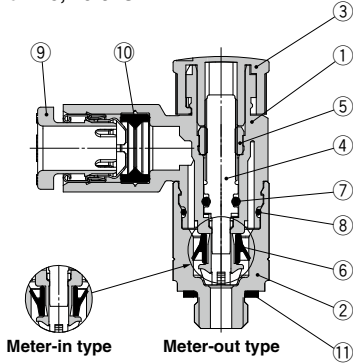


Note) The numbers above the flow rate characteristic curves in the charts show the applicable tubing outside diameter as defined by the product number.

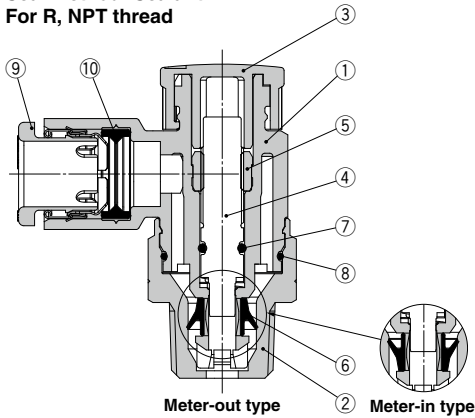
Construction

Elbow type

Seal method: Gasket seal
For M5, 10-32UNF



Seal method: Sealant
For R, NPT thread

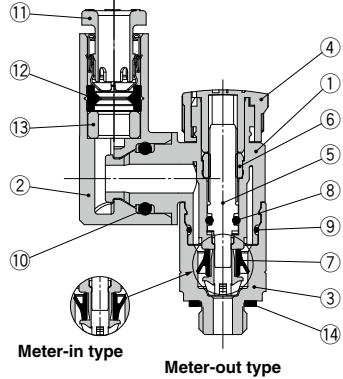


Component Parts

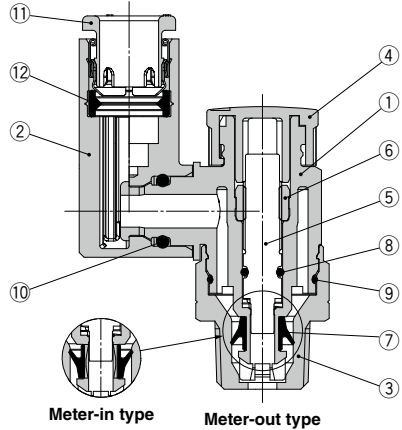
No.	Description	Material	Note
1	Body A	PBT	
2	Body B	Brass	Electroless nickel plating
3	Knob	POM	
4	Needle	PBT	
5	Needle guide	Brass	Electroless nickel plating
6	U-seal	HNBR	
7	O-ring	NBR	
8	O-ring	NBR	
9	Cassette	—	
10	Seal	NBR	
11	Gasket	NBR/Stainless steel	

Universal type

Seal method: Gasket seal
For M5, 10-32UNF



Seal method: Sealant
For R, NPT thread



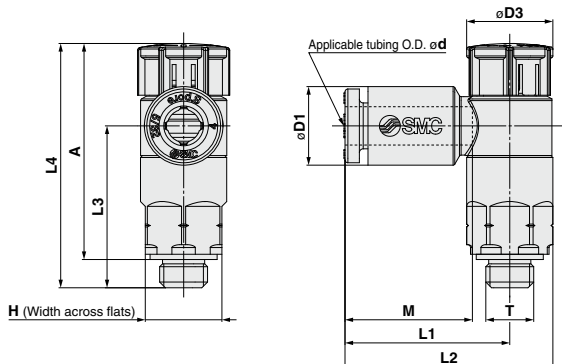
Component Parts

No.	Description	Material	Note
1	Body A	PBT	
2	Elbow body	PBT	
3	Body B	Brass	Electroless nickel plating
4	Knob	POM	
5	Needle	PBT	
6	Needle guide	Brass	Electroless nickel plating
7	U-seal	HNBR	
8	O-ring	NBR	
9	O-ring	NBR	
10	O-ring	NBR	
11	Cassette	—	
12	Seal	NBR	
13	Spacer ^(Note)	PBT	
14	Gasket	NBR/Stainless steel	

Note) Spacer is included only for the applicable tubing O.D. ø3.2, ø1/8", ø4, ø5/32" and ø6.

Dimensions/ Elbow type

Seal method: Gasket seal
For M5, 10-32UNF



Metric Size

Model	d	T	H <small>Note 1)</small>	D1	D3	L1	L2	L3	<small>L4</small> <small>Note 2)</small>		<small>A</small> <small>Note 3)</small>		M	Weight [g]									
									Unlocked	Locked	Unlocked	Locked											
AS12□1F-M5E-02A	2	M5 x 0.8 10/32UNF	8 (9)	5.8	9.4	15.8	20.3	16.9	26.5	25.4	23.5	22.4	11.9	5									
AS12□1F-U10/32E-02A																							
AS12□1F-M5E-23A	3.2			7.2		17.2	21.7																
AS12□1F-U10/32E-23A																							
AS12□1F-M5E-04A	4			8.2		18.6	23.1	16.5															
AS12□1F-U10/32E-04A																							
AS12□1F-M5E-06A	6		10.4											6									
AS12□1F-U10/32E-06A																							

Note 1) The value in () indicates that the dimension for the width across flats is 9 mm.

Note 2) Reference dimensions

Note 3) Reference dimensions of threads after installation

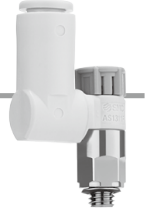
Inch Size

Model	d	T	H <small>Note 1)</small>	D1	D3	L1	L2	L3	<small>L4</small> <small>Note 2)</small>		<small>A</small> <small>Note 3)</small>		M	Weight [g]									
									Unlocked	Locked	Unlocked	Locked											
AS12□1F-M5E-01A	1/8"	M5 x 0.8 10/32UNF	8 (9)	7.2	9.4	17.2	21.7	16.9	26.5	25.4	23.5	22.4	13.3	5									
AS12□1F-U10/32E-01A																							
AS12□1F-M5E-03A	5/32"			8.2		18.6	23.1	16.5															
AS12□1F-U10/32E-03A																							
AS12□1F-M5E-07A	1/4"					11.2																	
AS12□1F-U10/32E-07A																							

Note 1) The value in () indicates that the dimension for the width across flats is 9 mm.

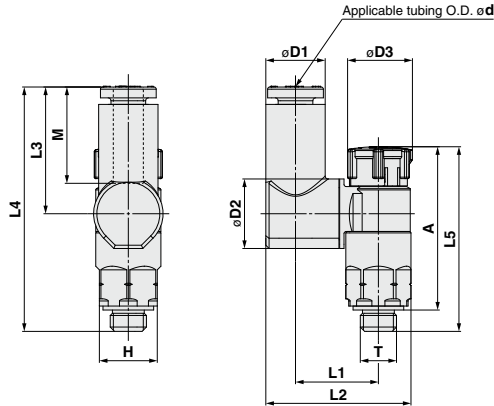
Note 2) Reference dimensions

Note 3) Reference dimensions of threads after installation



Dimensions/ **Universal type**

Seal method: Gasket seal
For M5, 10-32UNF



Metric Size

Model	d	T	H ^{Note 1)}	D1	D2	D3	L1	L2	L3	L4	L5 ^{Note 2)}		A ^{Note 3)}		M	Weight [g]
											Unlocked	Locked	Unlocked	Locked		
AS13□1F-M5E-23A	3.2	M5 x 0.8 10/32UNF	8 (9)	7.2	9.6	9.4	11.6	19.4	17.5	33.8	26.5	25.4	23.5	22.4	13.3	6
AS13□1F-U10/32E-23A				8.2												
AS13□1F-M5E-04A	4	M5 x 0.8 10/32UNF	8 (9)	8.2	9.6	9.4	11.5	19.8	17.5	33.8	26.5	25.4	23.5	22.4	13.3	6
AS13□1F-U10/32E-04A				10.4												
AS13□1F-M5E-06A	6	M5 x 0.8 10/32UNF	8 (9)	10.4	9.6	9.4	11.5	20.9	20.4	36.6	26.5	25.4	23.5	22.4	13.3	6
AS13□1F-U10/32E-06A				11.5												

Note 1) The value in () indicates that the dimension for the width across flats is 9 mm.

Note 2) Reference dimensions

Note 3) Reference dimensions of threads after installation

Inch Size

Model	d	T	H ^{Note 1)}	D1	D2	D3	L1	L2	L3	L4	L5 ^{Note 2)}		A ^{Note 3)}		M	Weight [g]
											Unlocked	Locked	Unlocked	Locked		
AS13□1F-M5E-01A	1/8"	M5 x 0.8 10/32UNF	8 (9)	7.2	9.6	9.4	11.6	19.4	17.5	33.8	26.5	25.4	23.5	22.4	13.3	6
AS13□1F-U10/32E-01A				8.2												
AS13□1F-M5E-03A	5/32"	M5 x 0.8 10/32UNF	8 (9)	8.2	9.6	9.4	11.5	19.8	17.5	33.8	26.5	25.4	23.5	22.4	13.3	6
AS13□1F-U10/32E-03A				10.4												
AS13□1F-M5E-07A	1/4"	M5 x 0.8 10/32UNF	8 (9)	11.2	9.6	9.4	11.5	21.3	20.2	36.5	26.5	25.4	23.5	22.4	13.3	6
AS13□1F-U10/32E-07A				11.5												

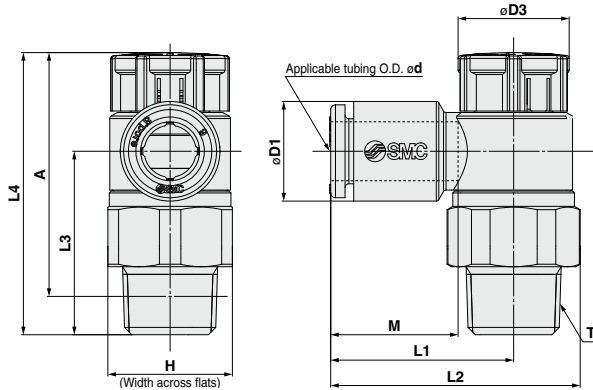
Note 1) The value in () indicates that the dimension for the width across flats is 9 mm.

Note 2) Reference dimensions

Note 3) Reference dimensions of threads after installation

Dimensions/ Elbow type

Seal method: Sealant
For R, NPT thread



Metric Size

Model	d	T	H	D1	D3	L1	L2	L3	L4 <small>Note 1)</small>		A <small>Note 2)</small>		M	Weight [g]
									Unlocked	Locked	Unlocked	Locked		
AS22□1F-01-23(S)A	3.2	1/8	13 (12.7)	7.2	12	19.1	26.2	19.1	30.6	29.2	27.5	26.1	13.3	9 (9)
AS22□1F-01-04(S)A	4			8.2										10 (9)
AS22□1F-01-06(S)A	6			10.4										11 (10)
AS22□1F-01-08(S)A	8			13.2										12 (11)
AS22□1F-01-10(S)A	10	15.9	15.9	25.3	32.4									
AS22□1F-02-23(S)A	3.2	1/4	17 (17.5)	7.2	13	20.9	30.2 (30.3)	22.6	36.6	35	31.1	29.5	13.3	18 (19)
AS22□1F-02-04(S)A	4			8.2										18 (19)
AS22□1F-02-06(S)A	6			10.4										19 (20)
AS22□1F-02-08(S)A	8			13.2										20 (21)
AS22□1F-02-10(S)A	10	15.9	26.9	36.2 (36.3)										
AS32□1F-02-06(S)A	6	1/4	19	10.4	16.6	21.8	32.1	36.4	50	48.4	44.5	42.9	13.3	40 (40)
AS32□1F-02-08(S)A	8			13.2										41 (41)
AS32□1F-02-10(S)A	10			15.9										42 (42)
AS32□1F-02-12(S)A	12			18.5										43 (43)
AS32□1F-03-06(S)A	6	3/8	19	10.4	16.6	21.8	32.1	28.7	42.3	40.7	37.1	35.5	13.3	31 (32)
AS32□1F-03-08(S)A	8			13.2										32 (33)
AS32□1F-03-10(S)A	10			15.9										33 (33)
AS32□1F-03-12(S)A	12			18.5										34 (35)
AS42□1F-04-10(S)A	10	1/2	24 (23.8)	15.9	18.8	27.4	40.3 (40.2)	36.2	50.8	49.2	43.7	42.1	15.6	54 (53)
AS42□1F-04-12(S)A	12			18.5										55 (55)
AS42□1F-04-14(S)A	14			23.8										56 (55)
AS42□1F-04-16(S)A	16			34.8										60 (59)

Note 1) Reference dimensions Note 2) Reference dimensions of threads after installation Note 3) The values in () are for NPT thread.

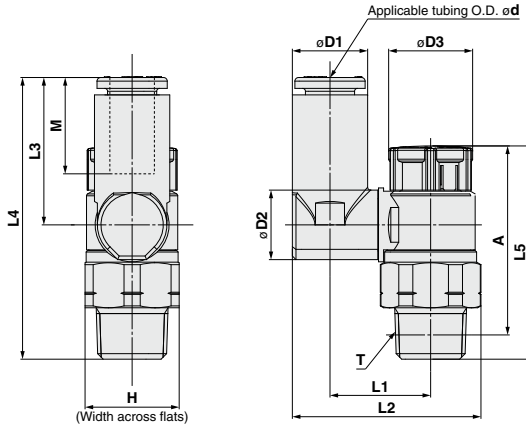
Inch Size

Model	d	T	H	D1	D3	L1	L2	L3	L4 <small>Note 1)</small>		A <small>Note 2)</small>		M	Weight [g]
									Unlocked	Locked	Unlocked	Locked		
AS22□1F-01-01(S)A	1/8"	1/8	13 (12.7)	7.2	12	19.1	26.2	19.1	30.6	29.2	27.5	26.1	13.3	9 (9)
AS22□1F-01-03(S)A	5/32"			8.2										10 (9)
AS22□1F-01-07(S)A	1/4"			11.2										11 (10)
AS22□1F-01-09(S)A	5/16"			13.2										12 (11)
AS22□1F-02-01(S)A	1/8"	1/4	17 (17.5)	7.2	13	20.9	30.2 (30.3)	22.6	36.6	35	31.1	29.5	13.3	18 (19)
AS22□1F-02-03(S)A	5/32"			8.2										19 (19)
AS22□1F-02-07(S)A	1/4"			11.2										20 (21)
AS22□1F-02-09(S)A	5/16"			13.2										21 (21)
AS22□1F-02-11(S)A	3/8"	15.5	26.4	35.7 (35.8)										
AS32□1F-02-07(S)A	1/4"	1/4	19	11.2	16.6	21.8	32.1	36.4	50	48.4	44.5	42.9	13.3	40 (40)
AS32□1F-02-09(S)A	5/16"			13.2										41 (41)
AS32□1F-02-11(S)A	3/8"			15.5										42 (42)
AS32□1F-03-07(S)A	1/4"			11.2										43 (43)
AS32□1F-03-09(S)A	5/16"	3/8	19	13.2	16.6	22.7	33	28.7	42.3	40.7	37.1	35.5	13.3	31 (32)
AS32□1F-03-11(S)A	3/8"			15.5										32 (33)
AS42□1F-04-11(S)A	1/2"			15.5										33 (33)
AS42□1F-04-13(S)A	3/8"			27.4										34 (35)
AS42□1F-04-13(S)A	1/2"	1/2	24 (23.8)	15.5	18.8	27.4	40.3 (40.2)	36.2	50.8	49.2	43.7	42.1	15.6	54 (53)
AS42□1F-04-13(S)A	3/8"			30.9										56 (55)

Note 1) Reference dimensions Note 2) Reference dimensions of threads after installation Note 3) The values in () are for NPT thread.

Dimensions/ **Universal type**

Seal method: Sealant
For R, NPT thread



Metric Size

Model	d	T	H	D1	D2	D3	L1	L2	L3	L4	L5 Note 1)		A Note 2)		M	[mm]											
											Unlocked	Locked	Unlocked	Locked		Weight [g]											
AS23□1F-01-23(S)A	3.2	1/8	13 (12.7)	7.2	9.6	12	13.3	24	17.5	36	30.6	29.2	27.5	26.1	13.3	10 (10)											
AS23□1F-01-04(S)A	4			8.2			13.9	25.1								11 (10)	12 (12)										
AS23□1F-01-06(S)A	6			10.4			26.2	20.4								38.8	11 (10)	12 (12)									
AS23□1F-01-08(S)A	8	1/4	17 (17.5)	13.2	12.9	13	16.4	30.1	17.5	40.1	36.6	35	31.1	29.5	13.3	19 (20)											
AS23□1F-02-04(S)A	4			8.2			19	33.8 (33.9)								21.4	43.9	13.3	21 (22)								
AS23□1F-02-06(S)A	6			11.2			23	17.4								16.6	20.2	36	21.4	57.8	50	48.4	44.5	42.9	13.3	42 (42)	
AS23□1F-02-08(S)A	8			13.2														37.1	23.5	59.9						14.2	43 (43)
AS23□1F-02-10(S)A	10			15.9														41.2	26.1	62.5						15.6	46 (46)
AS23□1F-02-12(S)A	12			18.5														42.5	28.3	64.7						17	48 (48)
AS33□1F-02-06(S)A	6	3/8	19	11.2	12.9	16.6	20.2	36	21.4	50.1	42.3	40.7	37.1	35.5	13.3	34 (35)											
AS33□1F-02-08(S)A	8			13.2			37.1	23.5	52.2	14.2						35 (36)											
AS33□1F-03-10(S)A	10			15.9			41.2	26.1	54.8	15.6						38 (39)											
AS33□1F-03-12(S)A	12			18.5			42.5	28.3	57	17						40 (41)											
AS43□1F-04-10(S)A	10			1/2			24 (23.8)	15.9	17.4	18.8						25.6	46.4 (46.3)	26.1	61.2	50.8	49.2	43.7	42.1	15.6	61 (69)		
AS43□1F-04-12(S)A	12							18.5								21	26.2	48.3 (48.2)	28.3						63.4	17	64 (63)

Note 1) Reference dimensions Note 2) Reference dimensions of threads after installation Note 3) The values in () are for NPT thread.

Inch Size

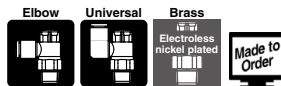
Model	d	T	H	D1	D2	D3	L1	L2	L3	L4	L5 Note 1)		A Note 2)		M	[mm]											
											Unlocked	Locked	Unlocked	Locked		Weight [g]											
AS23□1F-01-01(S)A	1/8"	1/8	13 (12.7)	7.2	9.6	12	13.3	24	17.5	36	30.6	29.2	27.5	26.1	13.3	10 (10)											
AS23□1F-01-03(S)A	5/32"			8.2			13.9	25.1								11 (10)	12 (12)										
AS23□1F-01-07(S)A	1/4"			11.2			29.1	20.2								38.7	11 (10)	12 (12)									
AS23□1F-01-09(S)A	5/16"	1/4	17 (17.5)	13.2	10.2	13	16.4	30.1	21.5	40	36.6	35	31.1	29.5	13.3	19 (20)											
AS23□1F-02-03(S)A	5/32"			8.2			19	33.8 (33.9)								21.4	43.9	13.3	21 (22)								
AS23□1F-02-07(S)A	1/4"			11.2			23	17.4								16.6	20.2	36	21.4	57.8	50	48.4	44.5	42.9	13.3	42 (42)	
AS23□1F-02-09(S)A	5/16"			13.2														37.1	23.5	59.9						14.2	43 (43)
AS23□1F-02-11(S)A	3/8"			15.9														41.2	26.1	62.5						15.6	46 (46)
AS23□1F-02-13(S)A	1/2"			18.5														42.5	28.3	64.7						17	48 (48)
AS33□1F-03-09(S)A	5/16"	3/8	19	11.2	12.9	16.6	20.2	36	21.4	50.1	42.3	40.7	37.1	35.5	13.3	34 (35)											
AS33□1F-02-07(S)A	1/4"			13.2			37.1	23.5	52.2	14.2						35 (36)											
AS33□1F-02-09(S)A	5/16"			15.9			41.2	26.1	54.8	15.6						38 (39)											
AS33□1F-02-11(S)A	3/8"			18.5			42.5	28.3	57	17						40 (41)											
AS33□1F-03-07(S)A	1/4"			11.2			23	17.4	16.6	20.2						36	21.4	50.1	50.8	49.2	43.7	42.1	15.6	61 (69)			
AS33□1F-03-09(S)A	5/16"			13.2												37.1	23.5	52.2						14.2	35 (36)		
AS33□1F-03-11(S)A	3/8"	15.9	41.2	26.1	54.8	15.6	38 (39)																				
AS43□1F-04-11(S)A	3/8"	1/2	24 (23.8)	15.9	17.4	18.8	25.6	46.4 (46.3)	26.1	61.2	50.8	49.2	43.7	42.1	15.6	61 (69)											
AS43□1F-04-13(S)A	1/2"			18.5			21	26.2	48.3 (48.2)	28.3						63.4	17	64 (63)									

Note 1) Reference dimensions Note 2) Reference dimensions of threads after installation Note 3) The values in () are for NPT thread.

AS Series

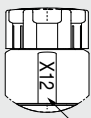
Made to Order

Please contact SMC for detailed dimensions, specifications and lead times.



1 Lubricant: Vaseline

-X12

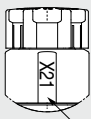


Laser printing

Example) AS2201F-01-04SA-X12

2 Grease-free (Seal: Fluorine-coated) + Restrictor (Without check valve)

-X21



Laser printing

Example) AS2201F-01-04SA-X21

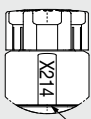
Note 1) Not particle-free

Note 2) This product is a restrictor without a check valve (no control direction). Be aware that all part numbers are for a meter-out type; there is no part number for a meter-in type.

Note 3) Only the needle and O-ring are fluorine-coated.

3 Restrictor (Without check valve)

-X214



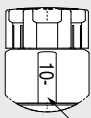
Laser printing

Example) AS2201F-01-04SA-X214

Note) This product is a restrictor without a check valve (no control direction). Be aware that all part numbers are for a meter-out type; there is no part number for a meter-in type.

4 Clean Series

10-



Laser printing

Example) 10-AS2201F-01-04SA

Note 1) Fluorine grease is used.

Note 2) The cleanliness class (ISO class) is 5.

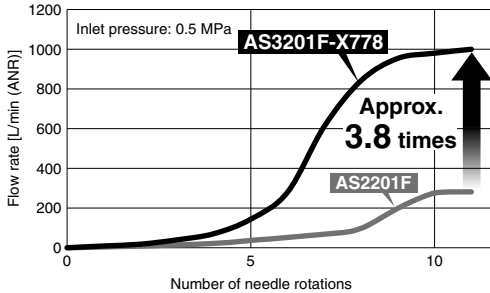
Note 3) Excluding G thread type.

5 Large Flow Type

-X778

Max. flow rate: 1000*1 L/min (ANR)

*1 For applicable tubing O.D.: ø8, ø10



How to Order

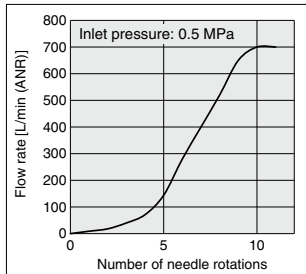
AS3201F-01-06 SA-X778

• Applicable tubing O.D.
Metric size

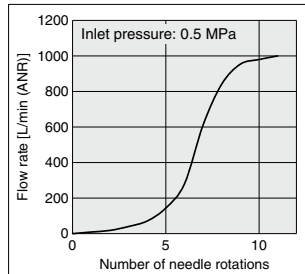
06	ø6
08	ø8
10	ø10

Flow Rate Characteristics

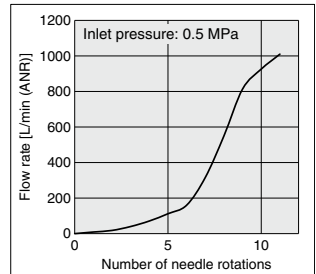
AS3201F-01-06SA-X778



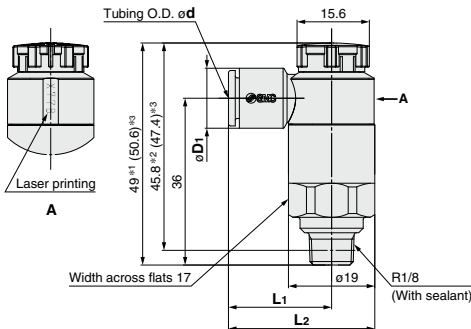
AS3201F-01-08SA-X778



AS3201F-01-10SA-X778



Dimensions



- *1 Reference dimensions
- *2 Reference dimensions of threads after installation
- *3 Reference dimensions when locked

Model	[mm]			
	d	D ₁	L ₁	L ₂
AS3201F-01-06SA-X778	6	10.4	32.1	36.4
AS3201F-01-08SA-X778	8	13.2	33	36.4
AS3201F-01-10SA-X778	10	15.9	37	35.7

Warning

1. Use within the specified cylinder speed and kinetic energy ranges. Otherwise, cylinder and seal damage may occur.
2. If the driven object moves at high speeds or is heavy, it will be unfeasible for only the cylinder's cushion to absorb the shock. Therefore, provide a speed-reduction circuit to reduce the cylinder's speed before the thrust is applied to the cushion or an external shock absorber to dampen the shock.