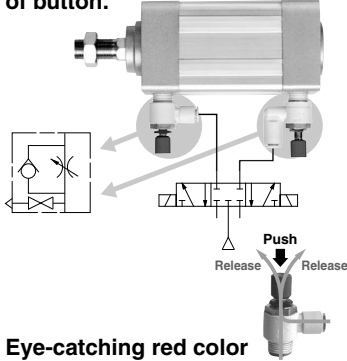


Speed Controller with Residual Pressure Release Valve with One-touch Fitting

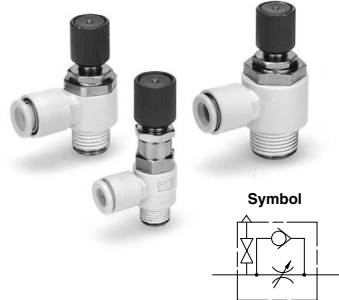
AS□□□□FE Series

RoHS

Residual pressure can be easily released with one push of button.



Eye-catching red color release button.



Model

Elbow type	Universal type	Port size in the cylinder side	Applicable tubing O.D. (mm)				
			ø4	ø6	ø8	ø10 ⁽¹⁾	ø12
AS22□1FE-01	AS23□1FE-01	R 1/8	●	●	●	●	
AS22□1FE-02	AS23□1FE-02	R 1/4	●	●	●	●	
AS32□1FE-03	AS33□1FE-03	R 3/8		●	●	●	●
AS42□1FE-04	AS43□1FE-04	R 1/2				●	●

Note 1) Elbow type only

Note 2) Distinction between meter-out/meter-in types by appearance

Those are distinguished by the lock nut. The meter-out type is electroless nickel plated, while the meter-in type is black zinc chromate plated.

Specifications

Fluid	Air
Proof pressure	1.5 MPa
Max. operating pressure	1.0 MPa
Min. operating pressure	0.1 MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)
Sonic conductance of residual pressure release valve	0.16 dm ³ /(s·bar)
Applicable tubing material	Nylon, Soft nylon, Polyurethane

Flow Rate and Sonic conductance

Model		AS22□1FE-01 AS23□1FE-01		AS22□1FE-02 AS23□1FE-02		AS32□1FE AS33□1FE		AS42□1FE AS43□1FE	
Tubing O.D.	Metric size	ø4	ø6 ø8 ø10	ø4	ø6 ø8 ø10	ø6	ø8 ø10 ø12	ø10	ø12
Controlled flow	Flow rate (L/min (ANR))	180	230	260	390	460	660	790	920
Free flow	Sonic conductance dm ³ /(s·bar)	0.5	0.64	0.72	1.1	1.3	1.8	2.2	2.6
Critical pressure ratio	Controlled flow	0.25		0.3		0.25		0.25	
	Free flow	0.2		0.3		0.2		0.3	

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

Flow Direction Symbols on Body

	Meter-out type	Meter-in type
Indication symbol		
Symbol		

Made to Order

Made to Order
(For details, refer to page 659.)

Symbol	Specifications
-X12	Lubricant: Vaseline
-X21	Grease-free (Seal: Fluorine-coated) + Throttle valve (Without check valve)
-X214	Throttle valve (Without check valve)

How to Order

AS 2 2 1 1 FE - 01 - 06 SK -

- 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
- Port size**
 - 01 R 1/8
 - 02 R 1/4
 - 03 R 3/8
 - 04 R 1/2
- Applicable tubing O.D. (mm)** (Note)
 - 04 ø4
 - 06 ø6
 - 08 ø8
 - 10 ø10
 - 12 ø12

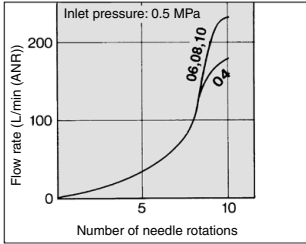
Note) For applicable tubing O.D. selection, refer to the Model.
- Hexagonal lock nut**
- With seal**
- With residual pressure release valve**
- With One-touch fitting**

Made to Order
Refer to page 659 for details.

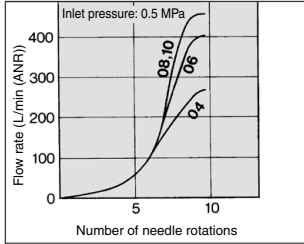
Needle Valve/Flow Rate Characteristics

Note) The flow rate characteristics are representative values.

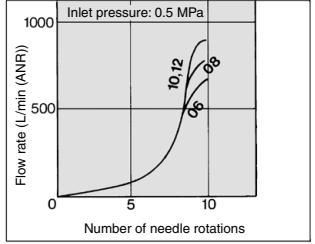
**AS2201FE-01, AS2211FE-01
AS2301FE-01, AS2311FE-01**



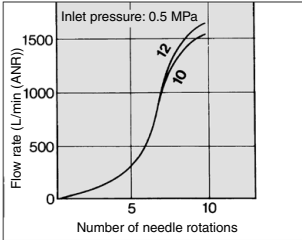
**AS2201FE-02, AS2211FE-02
AS2301FE-02, AS2311FE-02**



**AS3201FE, AS3211FE
AS3301FE, AS3311FE**



**AS4201FE, AS4211FE
AS4301FE, AS4311FE**



⚠ 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.

Made to Order



Lubricant: Vaseline

X12

Ex.) AS2201FE-01-04SK-X12

Grease-free (Seal: Fluorine Coated) + Throttle Valve (Without Check Valve)

X21

Ex.) AS2201FE-01-04SK-X21

Throttle Valve (Without Check Valve)

X214

Ex.) AS2201FE-01-04SK-X214

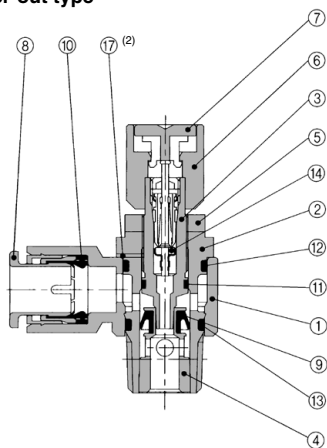
Note) This product is a restrictor without a check valve (no control direction). Be aware that all part numbers are for a meter-out type; there is no part number for a meter-in type.

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.

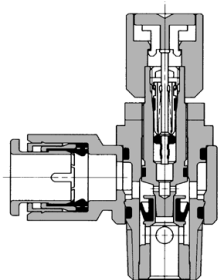
- AS-F
- TMH
- ASD
- AS
- AS-FE
- KE
- AS-FG
- AS-FP
- AS-FM
- AS-D
- AS-T
- ASP
- ASN
- AQ
- ASV
- AK
- VCHC
- ASR
- ASQ

Construction

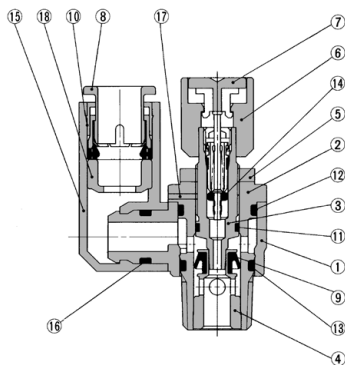
Elbow type Meter-out type



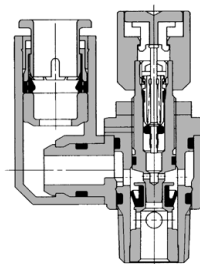
Meter-in type



Universal type Meter-out type



Meter-in type



Component Parts

No.	Description	Material	Note
1	Body A	PBT	White
2	Body B	Brass	Electroless nickel plated
3	Needle	Brass	Electroless nickel plated
4	Seat ring	Brass	⁽¹⁾
5	Lock nut	Steel ⁽²⁾	
6	Handle	Aluminum alloy	Red painted
7	Push button	POM	Red
8	Cassette	—	
9	U seal	HNBR	
10	Seal	NBR	
11	O-ring	NBR	
12	O-ring	NBR	
13	O-ring	NBR	
14	Valve core	—	
15	Elbow body	PBT	
16	O-ring	NBR	
17	Accidental release prevention screw	Stainless steel	AS2□□1FE-01 only ⁽³⁾
18	Spacer	—	

Note 1) AS2□□1FE type is electroless nickel plated.

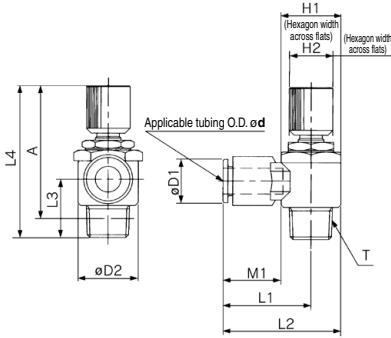
Note 2) Brass parts of AS2201FE-01 are electroless nickel plated.

Note 3) Only for AS2□□1FE-01.

Speed Controller with Residual Pressure Release Valve with One-touch Fitting **AS□□□□FE Series**

Dimensions

Elbow type



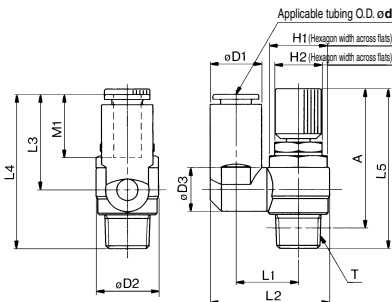
Model	Applicable tubing O.D. ød	T	H1	H2	D1	D2	L1	L2	L3	L4 (1)		A (2)		M1	Weight (g)	
										Max.	Min.	Max.	Min.			
AS22□□FE-01-04SK	4				9.3		20.4	27.5						12.7	26	
AS22□□FE-01-06SK	6	R 1/8	12	12	11.6	14.2	20.4	27.5	13.4		53	48	49.9	44.9	13.5	27
AS22□□FE-01-08SK	8				15.2		25.3	32.4						18.5	29	
AS22□□FE-01-10SK	10				18.5		33.1	40.2	14.1					21	31	
AS22□□FE-02-04SK	4				10.4		25.2	34.4						16	36	
AS22□□FE-02-06SK	6	R 1/4	17	14	12.8	18.5	25.2	34.4	17.7		51.7	46.7	46.2	41.2	17	37
AS22□□FE-02-08SK	8				15.2		27.2	36.4						18.5	39	
AS22□□FE-02-10SK	10				18.5		35.3	44.5	18.8					21	42	
AS32□□FE-03-06SK	6				12.8		27.8	39.3						17	57	
AS32□□FE-03-08SK	8				15.2		29.5	41						18.5	60	
AS32□□FE-03-10SK	10	R 3/8	19	14	18.5	23	31.8	43.3	19.8	56.7	51.7	51.5	46.5	21	62	
AS32□□FE-03-12SK	12				20.9		32.6	44.3						22	64	
AS42□□FE-04-10SK	10				18.5		33.6	47.9						21	103	
AS42□□FE-04-12SK	12	R 1/2	24	17	20.9	28.6	35.2	49.5	24.5	63.8	58.8	56.5	51.5	22	105	

Note 1) Reference dimensions

Note 2) Reference dimensions of R thread after installation.

Dimensions

Universal type



Model	Applicable tubing O.D. ød	T	H1	H2	D1	D2	D3	L1	L2	L3	L4	L5 (1)		A (2)		M1	Weight (g)
												Max.	Min.	Max.	Min.		
AS23□□FE-01-04SK	4				9.3		9.3	13.1	24.9	17.5	30.9					12.7	26
AS23□□FE-01-06SK	6	R 1/8	12	12	11.6	14.2	10.9	14	26.9	22.9	36.3	53	48	49.9	44.9	13.5	27
AS23□□FE-01-08SK	8				15.2		12.9	16.2	30.9	28.2	40.8					18.5	29
AS23□□FE-02-04SK	4				10.4		10.9	16.2	30.6	21.9	39.6					16	36
AS23□□FE-02-06SK	6	R 1/4	14	14	12.8	18.5	18.4	34	25.2	42.1	51.7	46.7	46.2	41.2	17	37	
AS23□□FE-02-08SK	8				15.2		12.9	18.3	35.2	28.2	45.1					18.5	39
AS23□□FE-02-10SK	10				18.5		20.2	38.7	31	47.9					21	42	
AS33□□FE-03-06SK	6				12.8		12.9	20.6	38.5	25.2	45				17	57	
AS33□□FE-03-08SK	8	R 3/8	19	14	15.2	23		39.7	28.2	48	56.7	51.7	51.5	46.5	18.5	60	
AS33□□FE-03-10SK	10				18.5		16.2	23	43.7	32.6	52.4				21	62	
AS33□□FE-03-12SK	12				20.9			44.9	34.4	54.2					22	64	
AS43□□FE-04-10SK	10				18.5		16.2	25.8	49.4	32.6	57.1				21	103	
AS43□□FE-04-12SK	12	R 1/2	24	17	21.7	28.6	19.4	26.8	52	36.3	60.8	63.8	58.8	56.5	51.5	22	105

Note 1) Reference dimensions

Note 2) Reference dimensions of R thread after installation.

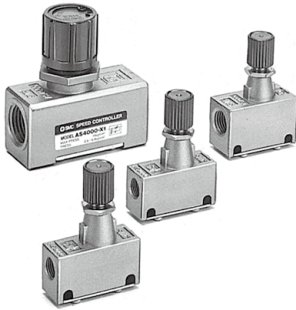
- AS-F
- TMH
- ASD
- AS
- AS-FE
- KE
- AS-FG
- AS-FP
- AS-FM
- AS-D
- AS-T
- ASP
- ASN
- AQ
- ASV
- AK
- VCHC
- ASR
- ASQ

Speed Controller with Residual Pressure Release Valve: Standard Type

AS□□□□E Series

RoHS

Residual pressure can be easily released with one push of button.
Eye-catching red color release button.



Model/Flow Rate and Sonic conductance

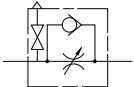
Model	Port size	Free flow			Controlled flow			Weight (g)
		Flow rate (L/min (ANR))	Sonic conductance (dm ³ /(s·bar))	Critical pressure ratio	Flow rate (L/min (ANR))	Sonic conductance (dm ³ /(s·bar))	Critical pressure ratio	
AS2000E-01	1/8	340	0.94	0.35	250	0.7	90	
AS2000E-02	1/4				250	0.7		115
AS3000E-02	1/4	810	2.3		810	2.3	130	
AS3000E-03	3/8				810	2.3		
AS4000E-02	1/4	1670	4.6	1670	4.6	0.2	225	
AS4000E-03	3/8							
AS4000E-04	1/2							

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

Specifications

Fluid	Air
Proof pressure	1.5 MPa
Max. operating pressure	1.0 MPa
Min. operating pressure	0.05 MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)
Sonic conductance of residual pressure release valve	0.16 dm ³ /(s·bar)

Symbol



How to Order

AS 2 000 E - □ 01

Body size

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

With residual pressure release valve

Thread type

NII	Rc
N	NPT
F	G

Port size

Port size	Applicable series
01	1/8 AS2000E
02	1/4 AS2000E, 3000E, 4000E
03	3/8 AS3000E, 4000E
04	1/2 AS4000E

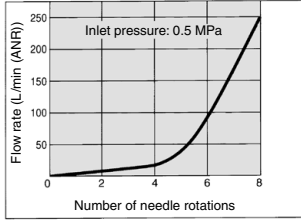
Caution

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.

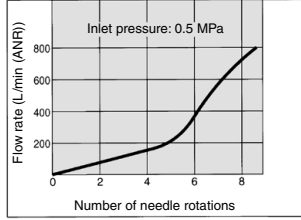
Needle Valve/Flow Rate Characteristics

Note) The flow rate characteristics are representative values.

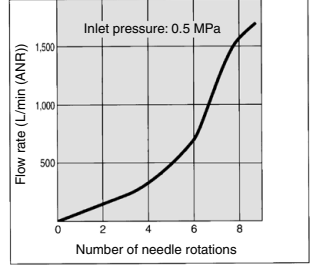
AS2000E



AS3000E

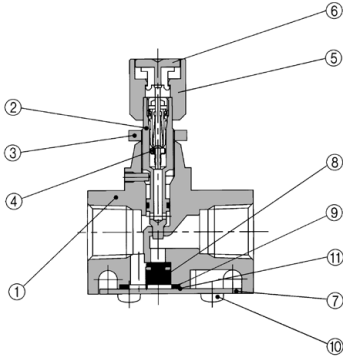


AS4000E

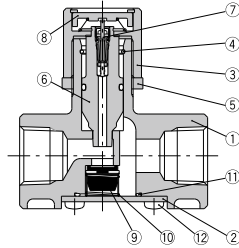


Construction

AS2000E/3000E



AS4000E



Component Parts

No.	Description	Model	
		AS2000E	AS3000E
1	Body	Zinc alloy	Aluminum alloy
2	Needle	Brass	Brass
3	Lock nut	Brass	Brass
4	Valve core	—	—
5	Handle	Aluminum alloy (Red painted)	Aluminum alloy (Red painted)
6	Push button	POM (Red)	POM (Red)
7	Cap	Stainless steel	Stainless steel

Replacement Parts

No.	Description	Material	Part no.	
			AS2000E	AS3000E
8	Valve	NBR	143022	14283
9	Spring	Stainless steel	143023	14282
10	Cross-recessed head cap screw	Note)	AA00058	AA00241
11	O-ring	NBR	143021	14284

Note) AS2000E: Stainless steel, AS3000E: Steel wire.

Component Parts

No.	Description	Material	Note
1	Body	Aluminum alloy	
2	Cap	SPC	
3	Handle	Zinc alloy	Red painted
4	Ring	Spring steel	
5	Lock nut	Zinc alloy	
6	Needle	Aluminum alloy	
7	Valve core	—	
8	Push button	POM	Red

Replacement Parts

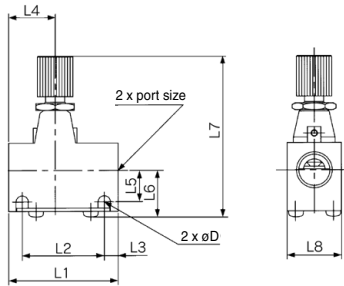
No.	Description	Material	Part no.
9	Valve	NBR/Brass	143145
10	Spring	Stainless steel	143146
11	O-ring	NBR	143147
12	Cross-recessed head cap screw	Steel wire	AA00241

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

AS□□□□E Series

Dimensions

AS2000E/3000E



Model	Port size	L1	L2	L3	L4	L5	L6	L7 (1)		L8	D
								Max.	Min.		
AS2000E-01	1/8	40	30	5	17	10	15.5	61.5	57	16	4.5
AS2000E-02	1/4	40	30	5	23	12	17	63.5	59	20	4.5
AS3000E-02, 03	1/4, 3/8	56	45.5	5.25	25	13.25	20.6	76	69	26	5.5

Note 1) Reference dimensions

AS4000E

