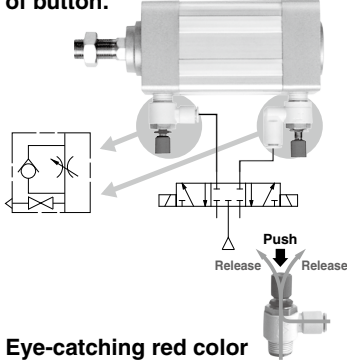


# Speed Controller with Residual Pressure Release Valve with One-touch Fitting

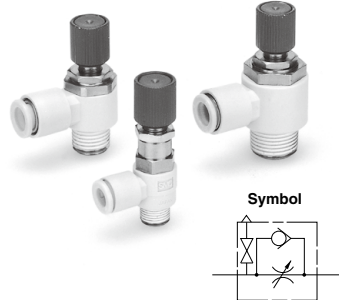
# AS□□□□FE Series

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 <sup>(1)</sup>	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 <sup>3</sup> /(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 <sup>3</sup> /(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 1045.)

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)**
  - 04 ø4
  - 06 ø6
  - 08 ø8
  - 10 ø10
  - 12 ø12
- Hexagonal lock nut**
- With seal**
- With residual pressure release valve**
- With One-touch fitting**

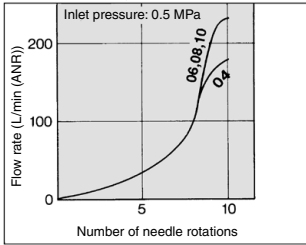
Note) For applicable tubing O.D. selection, refer to the Model.

Made to Order  
Refer to page 1045 for details.

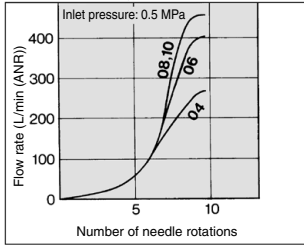
**Needle Valve/Flow Rate Characteristics**

Note) The flow rate characteristics are representative values.

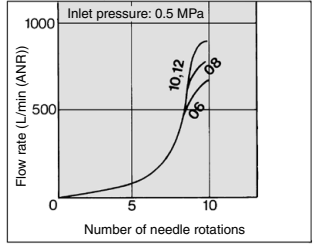
**AS2201FE-01, AS2211FE-01  
AS2301FE-01, AS2311FE-01**



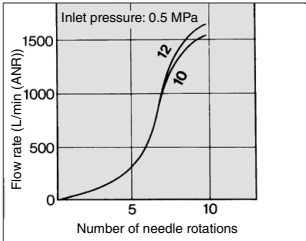
**AS2201FE-02, AS2211FE-02  
AS2301FE-02, AS2311FE-02**



**AS3201FE, AS3211FE  
AS3301FE, AS3311FE**



**AS4201FE, AS4211FE  
AS4301FE, AS4311FE**



**⚠ Caution**

Be sure to read this before handling the products.  
Refer to page 11 for safety instructions and pages 19 to 22 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

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.

**Throttle Valve (Without Check Valve)**

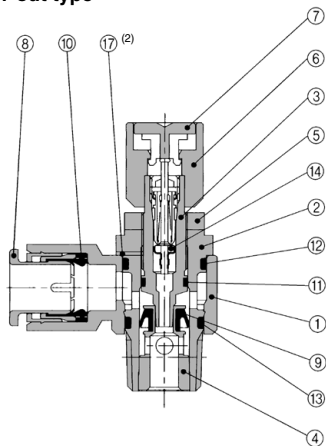
**X214**

Ex.) AS2201FE-01-04SK-X214

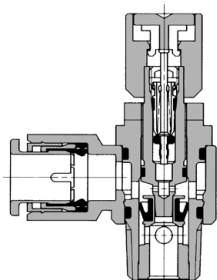
Note) This product is a restrictor without a check valve (no control direction). Be aware that all part numbers are for a meter-out type; there is no part number for a meter-in type.

## Construction

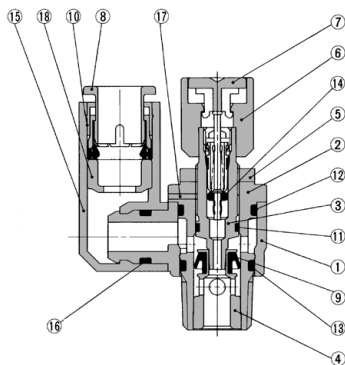
### Elbow type Meter-out type



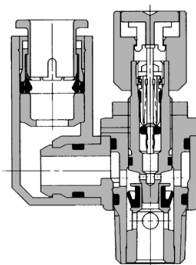
### Meter-in type



### 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.

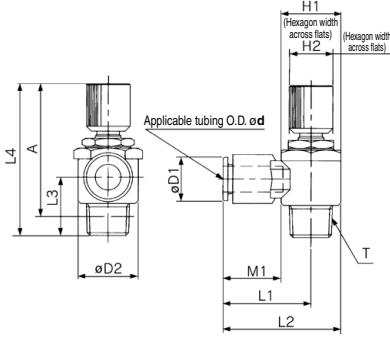
Note 2) Brass parts of AS2201FE-01 are electroless nickel plated.

Note 3) Only for AS2□□1FE-01.

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

## Dimensions

### Elbow type



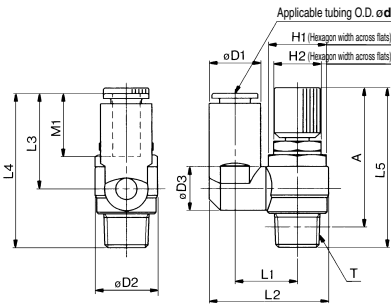
Model	Applicable tubing O.D. ød	T	H1	H2	D1	D2	L1	L2	L3	L4 (1)		A (2)		M1	Weight (g)
										Max.	Min.	Max.	Min.		
AS22□FE-01-04SK	4				9.3		20.4	27.5						12.7	26
AS22□FE-01-06SK	6	R 1/8	12	12	11.6	14.2	20.4	27.5	13.4	53	48	49.9	44.9	13.5	27
AS22□FE-01-08SK	8				15.2		25.3	32.4						18.5	29
AS22□FE-01-10SK	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	R 3/8	19	14	15.2	23	29.5	41	19.8	56.7	51.7	51.5	46.5	18.5	60
AS32□FE-03-10SK	10				18.5		31.8	43.3						21	62
AS32□FE-03-12SK	12				20.9		32.8	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

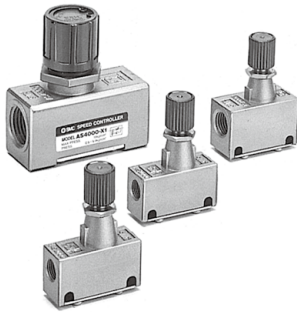
Note 2) Reference dimensions of R thread after installation.

# 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

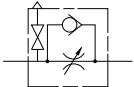
Model	Port size	Free flow			Controlled flow			Weight (g)
		Flow rate (L/min (ANR))	Sonic conductance (dm <sup>3</sup> /(s·bar))	Critical pressure ratio	Flow rate (L/min (ANR))	Sonic conductance (dm <sup>3</sup> /(s·bar))	Critical pressure ratio	
AS2000E-01	1/8	340	0.94	0.35	250	0.7	90	
AS2000E-02	1/4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

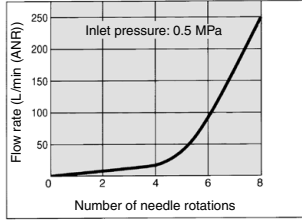
## Caution

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

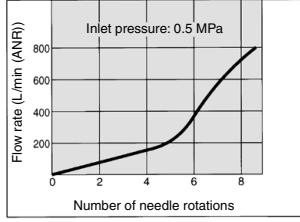
## Needle Valve/Flow Rate Characteristics

Note) The flow rate characteristics are representative values.

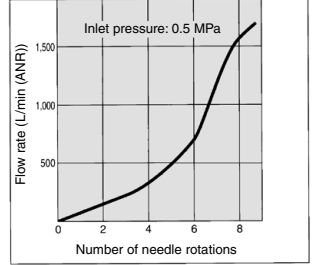
### AS2000E



### AS3000E

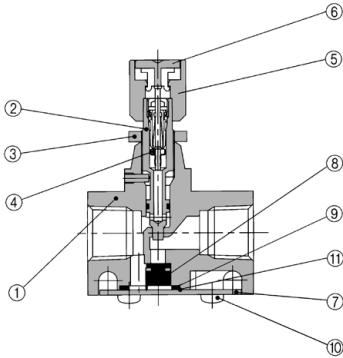


### AS4000E

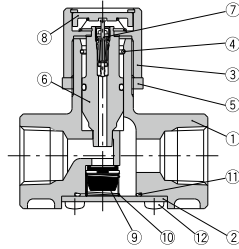


## Construction

### 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

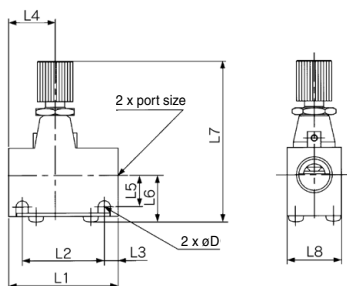
### Replacement Parts

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□□□□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

