

Speed Controller: Standard Type

Series AS

Elbow Type (Metal Body)

Minimizes installation time and cost

Fittings and tubing are not necessary because this type screws directly into the actuator. Thus, piping labor and cost can be eliminated.

Body swivels 360°

Swivel type allows free setting of piping.

Speed may be accurately controlled even at low speeds.

Able to control and set a constant speed easily.

Retainer prevents accidental loss of needle.



Model/Specifications

Specifications	Model	AS1200-M3	AS1400-M3	AS12□0-M5	AS12□0-U10/32	AS22□0-01	AS22□0-02	AS32□0-03	AS42□0-04
Port size		M3 x 0.5	M5 x 0.8	10-32UNF	1/8	1/4	3/8	1/2	
Applicable cylinder bore size (mm)		2.5, 4, 6	6, 10, 15, 20, 25	20, 25, 32, 40	32, 40, 50, 63	80, 100			
Proof pressure		1.05 MPa		1.5 MPa					
Max. operating pressure		0.7 MPa		1 MPa					
Min. operating pressure		0.1 MPa		0.1 MPa					
Ambient and fluid temperature		-5 to 60°C (No freezing)							
Number of needle rotation		10 turns		8 turns		10 turns			
Option		—		Hexagonal lock nut		With seal, Hexagonal lock nut, Nickel plated			
Weight (g)		3	6	10	29	64	106	181	
Controlled flow (Free flow)	Flow rate ℓ/min (ANR)	20		105	230	460	920	1700	
	Effective area (mm ²)	0.3		1.6	3.5	7	14	26	

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

Note 2) Meter-in type not available on AS1200-M3, AS1400-M3.

Note 3) 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.

Note 4) AS1200, AS1400, AS22□0 are electroless nickel plated as standard. (N specifications)

How to Order

AS 2 2 0 0 — □ 01 — S

Body size

1	M3, M5 standard
2	1/8, 1/4 standard
3	3/8 standard
4	1/2 standard

Type

2	Direct cylinder elbow type
4	Direct cylinder flat elbow type

Control type

0	Meter-out
1	Meter-in

Thread type

Symbol	Cylinder side	Tube side
Nil	R	Rc
	Metric thread (M3, M5)	
Unified thread (10-32UNF)		
N	NPT	
F	G*	

Option

Nil	None
S	With seal
K	Hexagonal lock nut
N	Electroless nickel plated

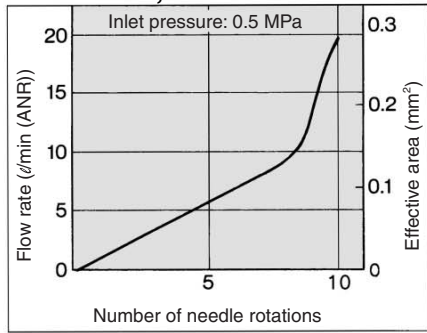
* If more than one option is required, write option part numbers in the order of "S", "K", "N".

Bore size

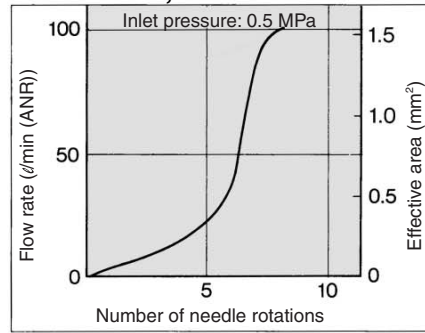
Symbol	Bore size	Applicable series
M3	M3 x 0.5	AS1200-M3 AS1400-M3
M5	M5 x 0.8	AS12□0-M5
U10/32	10-32UNF	AS12□0-U10/32
01	1/8	AS22□0-01
02	1/4	AS22□0-02
03	3/8	AS32□0-03
04	1/2	AS42□0-04

Needle Valve/Flow Characteristics

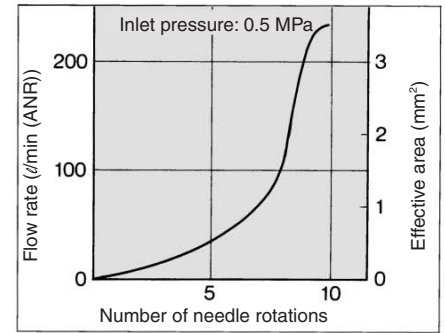
AS1200-M3, AS1400-M3



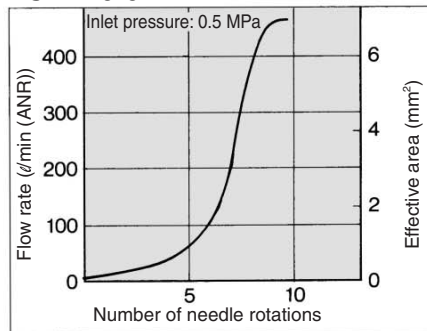
AS12□0-M5, AS12□0-U10/32



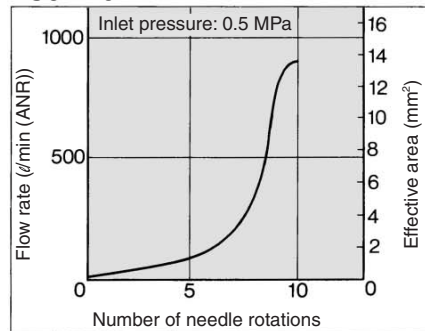
AS22□0-01



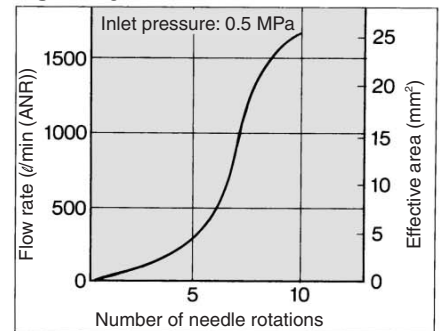
AS22□0-02



AS32□0



AS42□0



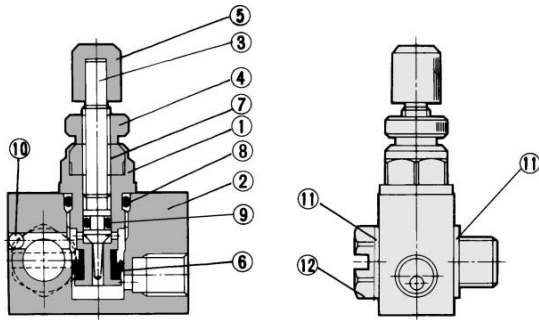
⚠ Caution

Be sure to read before handling. Refer to pages 15-18-3 to 15-18-4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, and refer to pages 15-8-6 to 15-8-8 for Precautions on every series.

- AS**
- ASP**
- ASN**
- AQ**
- ASV**
- AK**
- ASS**
- ASR**
- ASF**

Series AS

Construction: AS1400-M3



Component Parts

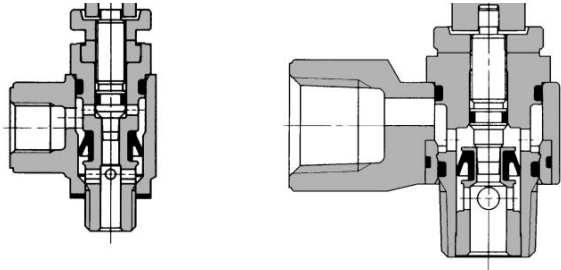
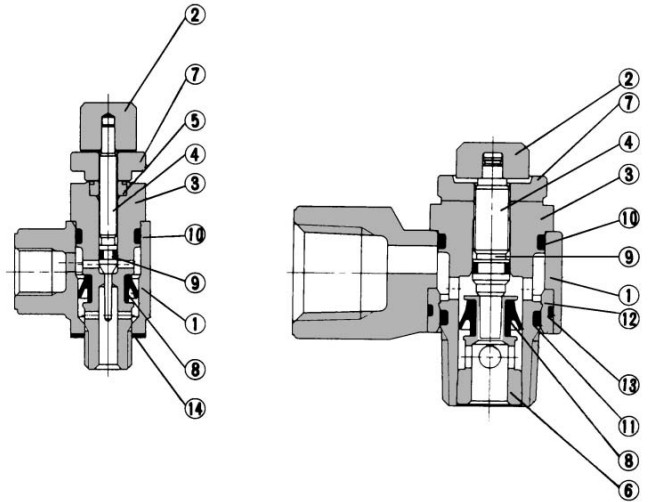
No.	Description	Material	Note
①	Body B	Brass	Electroless nickel plated
②	Body A	Brass	Electroless nickel plated
③	Needle	Brass	Electroless nickel plated
④	Lock nut	Brass	Electroless nickel plated
⑤	Handle	Brass	Electroless nickel plated
⑥	U seal	HNBR	
⑦	Needle guide	Brass	Electroless nickel plated
⑧	O-ring	NBR	
⑨	O-ring	NBR	
⑩	Steel ball	Chromium bearing steel	
⑪	Gasket	PVC	
⑫	Joint	Brass	Electroless nickel plated

Construction: AS1200-M3, AS12□0-M5, AS22□0/32□0/42□0

Meter-out type

AS1200-M3, M5, U10/32

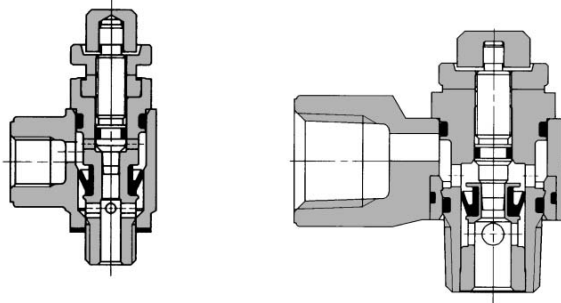
AS2200, 3200, 4200



Meter-in type

AS1210-M5, U10/32

AS2210, 3210, 4210



Component Parts

No.	Description	Material	Note
①	Body A	Zinc alloy	
②	Handle	Brass	Electroless nickel plated
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	NBR	
⑨	O-ring	NBR	
⑩	O-ring	NBR	
⑪	O-ring	NBR	
⑫	Bushing	PBT	01 to 04 type
⑬	O-ring	NBR	01 to 04 type
⑭	Gasket	PVC	M3 type
		NBR, Stainless steel	M5, U10/32 type

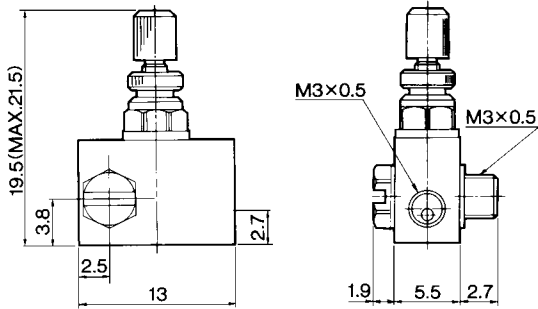
Note 1) AS22□0 type is electroless nickel plated.

Note 2) AS22□0 type is made of steel.

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

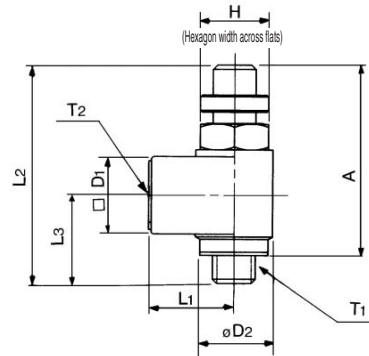
Speed Controller: Standard Type Elbow Type (Metal Body) **Series AS**

Dimensions: AS1400-M3

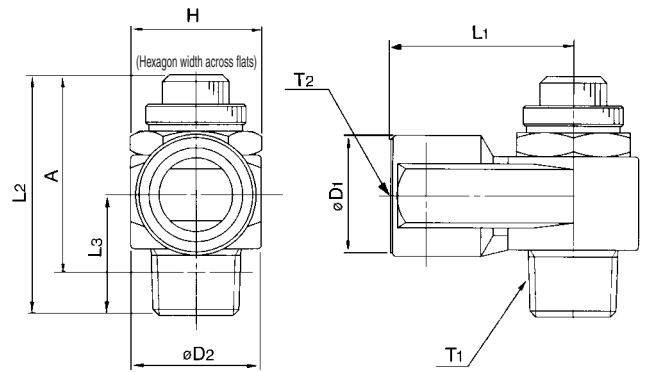


Dimensions: AS-1200-M3, AS12□0-M5, AS22□0, 32□0, 42□0

AS1200-M3
AS12□0-M5
AS12□0-U10/32



AS22□0, 32□0, 42□0



AS

ASP

ASN

AQ

ASV

AK

ASS

ASR

ASF

Dimensions

Model	T1	T2	H ⁽¹⁾	L1	L2		L3	D1	D2	A ⁽²⁾	
					Max.	Min.				Max.	Min.
AS1200-M3	M3 x 0.5	M3 x 0.5	4.5	6.6	23.5	21.5	8	5	5	20.5	18.5
AS1200-M5	M5 x 0.8	M5 x 0.8	8	10	28.3	25.5	10.3	9	9	25	22.2
AS1200-U10/32	10-32 UNF	10-32 UNF									
AS22□0-01	1/8	1/8	12 (12.7)	18	36.4	31.4	14.1	14.3	14.6	32.4	27.4
AS22□0-02	1/4	1/4	17 (17.5)	27.2	40.8	35.8	18	18	19.5	34.8	29.8
AS32□0-03	3/8	3/8	19	30	46.9	41.9	20.8	22.5	24.3	40.6	35.6
AS42□0-04	1/2	1/2	24 (23.8)	38.5	55.6	50.6	26.7	27.5	28.5	47.4	42.4

Note 1) () are the dimensions of "NPT" thread.

Note 2) Reference thread dimensions after installation.