

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

RoHS

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.

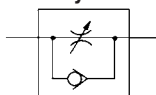
Speed may be accurately controlled even at low speeds.

Able to control and set a constant speed easily.

Retainer prevents accidental loss of needle.



JIS Symbol



Made to Order
(Refer to page 453 for details.)

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	10-32 UNF	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			
Fluid		Air							
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		—	Round lock nut	With seal, Round lock nut, Nickel plated					
Mass (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 zinc chromated, while the meter-in type is black zinc chromate plated.

Note 4) AS12□0, AS1400, AS22□0: Brass parts are electroless nickel plated, provided 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
Metric thread (M3, M5) Unified thread (10-32 UNF)		
N	NPT	
F	G*	

* Male thread comes with R thread.

Made to Order
Refer to page 453 for details.

Lock nut option

Nil	Hexagon lock nut
J	Round lock nut

Option

Nil	None
S	With seal
N	Electroless nickel plated

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

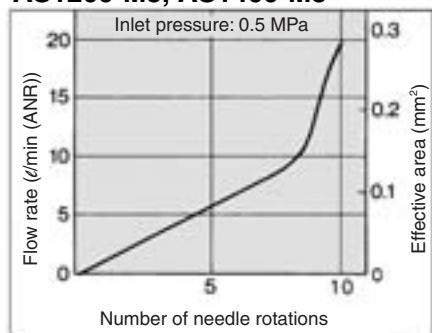
Note) M3 and M5 sizes: s (with seal) is not necessary.

Bore size

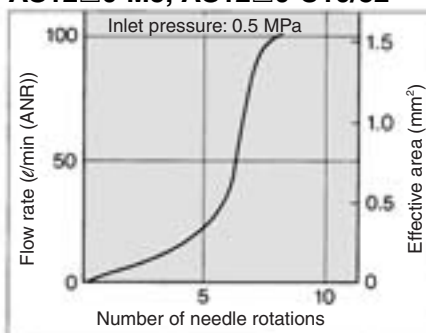
Symbol	Bore size	Applicable series
M3	M3 x 0.5	AS1200-M3 AS1400-M3
M5	M5 x 0.8	AS12□0-M5
U10/32	10-32 UNF	AS12□0-U10/32
01	1/8	AS22□0-01
02	1/4	AS22□0-02
03	3/8	AS32□0-03
04	1/2	AS42□0-04

Needle Valve/Flow Characteristics

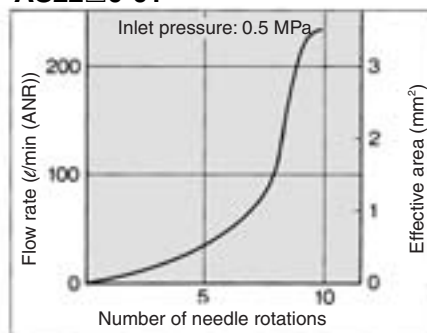
AS1200-M3, AS1400-M3



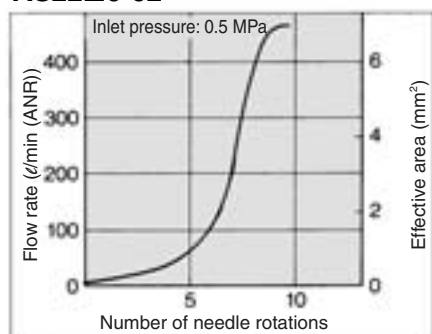
AS12□0-M5, AS12□0-U10/32



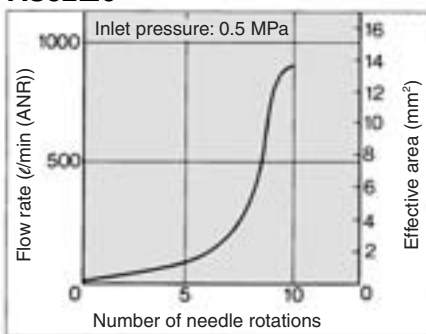
AS22□0-01



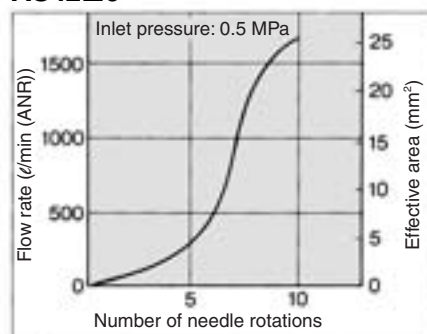
AS22□0-02



AS32□0



AS42□0



⚠ Caution

Be sure to read before handling.
Refer to front matters 58 and 59 for Safety Instructions and pages 412 to 414 for Flow Control Equipment Precautions.

Made to Order



Lubricant: Vaseline

X12

Ex.) AS2200-01-X12

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

X21

Ex.) AS2200-01-X21

Note 1) Not particle-free

Note 2) Throttle valve is only compatible with the part no. of the meter-out type.

Throttle Valve (Without Check Valve)

X214

Ex.) AS2200-01-X214

Note) Throttle valve is only compatible with the part no. of the meter-out type.

AS

ASP

ASN

AQ

ASV

AK

VCHC

ASS

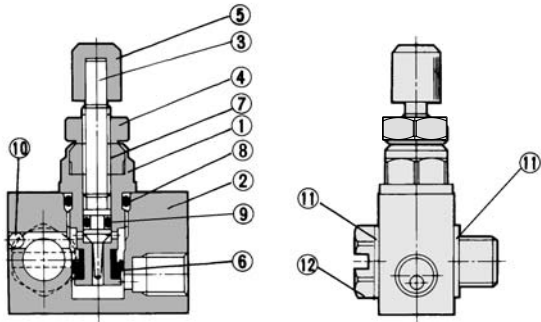
ASR
ASQ

KE

TMH

Series AS

Construction: AS1400-M3



Component Parts

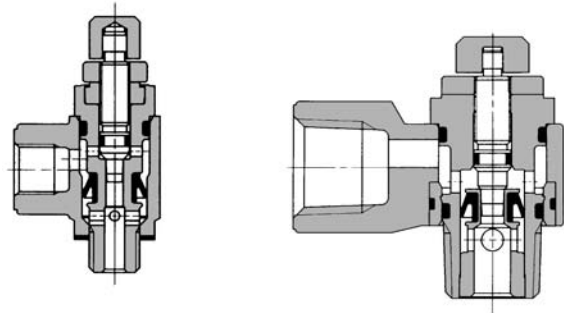
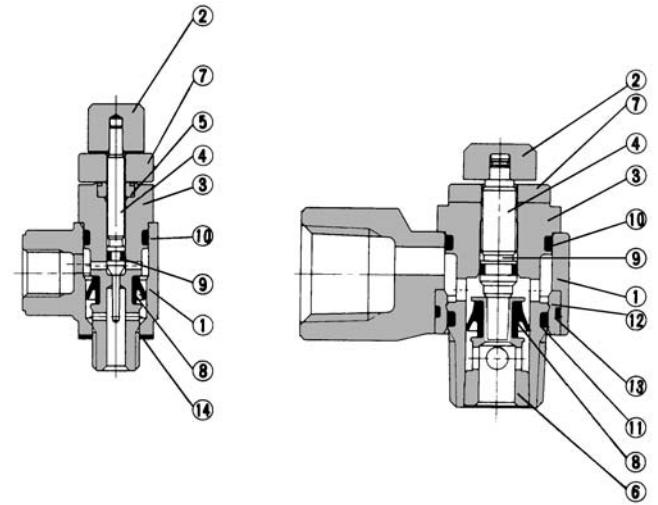
No.	Description	Material	Note
1	Body B	Brass	Electroless nickel plated
2	Body A	Brass	Electroless nickel plated
3	Needle	Brass	Electroless nickel plated
4	Lock nut	Steel	Zinc chromated
5	Handle	Brass	Electroless nickel plated
6	U seal	HNBR	
7	Needle guide	Brass	Electroless nickel plated
8	O-ring	NBR	
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

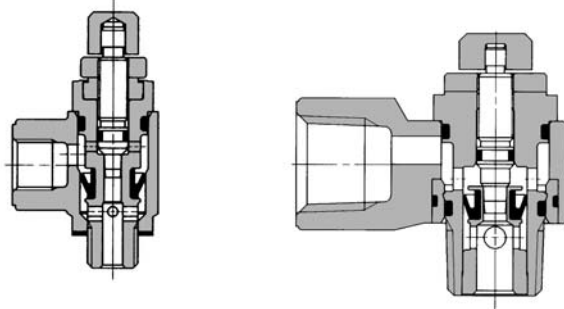
AS2200, 3200, 4200



Meter-in type

AS1210-M5, U10/32

AS2210, 3210, 4210



Component Parts

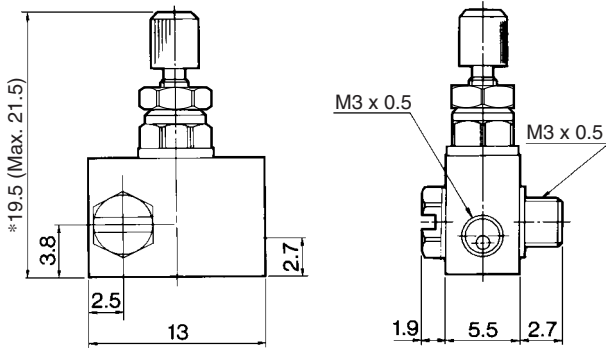
No.	Description	Material	Note
1	Body A	Zinc alloy	
2	Handle	Brass	Electroless nickel plated
3	Body B	Brass	Electroless nickel plated
4	Needle	Brass	Electroless nickel plated
5	Needle guide	Brass	Electroless nickel plated
6	Seat ring	Brass	⁽¹⁾
7	Lock nut	Steel	Zinc chromated ⁽²⁾
8	U seal	HNBR	
9	O-ring	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) Meter-in type is black zinc chromate plated.

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

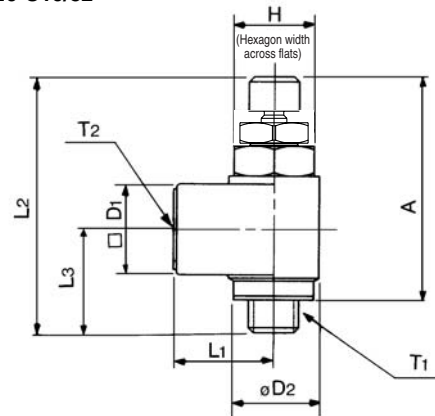
Dimensions: AS1400-M3



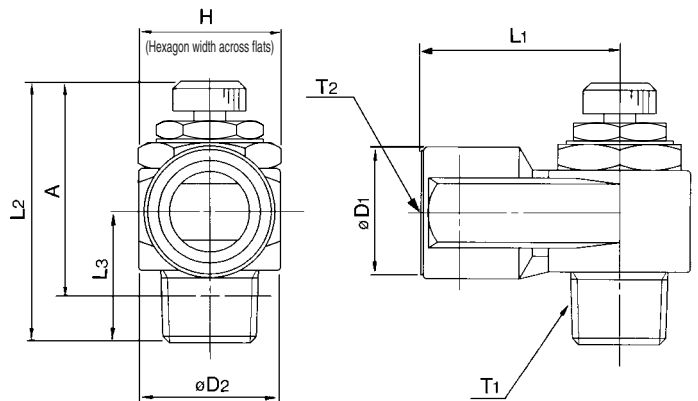
* Reference dimensions

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



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
AS12□0-M5	M5 x 0.8	M5 x 0.8	8	10	28.3	25.5	10.3	9	9	25	22.2
AS12□0-U10/32	10-32UNF	10-32UNF									
AS22□0-01	1/8	1/8	12 (12.7)	18	35.5	30.5	13.2	14.3	14.6	32.4	27.4
AS22□0-02	1/4	1/4	17 (17.5)	27.2	40.3	35.3	17.5	18	19.5	34.8	29.8
AS32□0-03	3/8	3/8	19	30	45.8	40.8	19.7	22.5	24.3	40.6	35.6
AS42□0-04	1/2	1/2	24 (23.8)	38.5	54.7	49.7	25.8	27.5	28.5	47.4	42.4

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

Note 2) Reference thread dimensions after installation.

Note 3) L2: Reference dimensions

AS

ASP

ASN

AQ

ASV

AK

VCHC

ASS

ASR

ASQ

KE

TMH