



Speed Controller Standard Type

Series AS

In-line Type

Compact size saves space.

Speed may be accurately controlled even at low speeds.

Constant speed easily set.

Retainer prevents accidental loss of needle.



How to Order

N **AS** **1** 000 — **M5**

Area Code

Nil	Japan, Asia, Australia, UK
N	U.S.A.

Body size

1	M3, M5
2	1/8, 1/4
3	3/8
4	1/2
5	1/2

Port size

Port size	Applicable model
M3	M3 x 0.5 AS1000
M5	M5 x 0.8 AS1000
01	Rc1/8 AS2000
02	Rc1/4 AS2000, 3000, 4000, 5000
03	Rc3/8 AS3000, 4000, 5000
04	Rc1/2 AS4000, 5000

Port thread

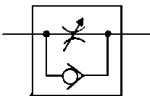
Nil	M3, M5
N	NPT
F	G

Specifications

Proof pressure ^{Note 1)}	1.5MPa (1.05MPa)
Maximum operating pressure ^{Note 1)}	1MPa (0.7MPa)
Minimum operating pressure ^{Note 1)}	0.05MPa (0.1MPa)
Ambient and fluid temperature	-5° to 60°C (No freezing)
Number of needle rotation ^{Note 1)}	8 turns (10 turns)

Note 1) (): Values for AS1000.

JIS Symbol



Model

Model	Port size	Free flow		Controlled flow		Applicable cylinder bore size (mm)	Weight (g)
		Air flow [l/min (ANR)]	Effective area (mm ²)	Air flow [l/min (ANR)]	Effective area (mm ²)		
AS1000-M3	M3 x 0.5	20	0.3	20	0.3	2.5, 4, 6	4.7
AS1000-M5	M5 x 0.8	90	1.4	80	1.2	6, 10, 16, 20, 25	33
AS2000-01	1/8	340	5.2	250	3.8	20, 25, 32, 40	90
AS2000-02	1/4	340	5.2	250	3.8		115
AS3000-02	1/4	810	12.3	810	12.3	32, 40, 50, 63	130
AS3000-03	3/8	810	12.3	810	12.3		124
AS4000-02	1/4	1,670	25.5	1,670	25.5	40, 50, 63, 80, 100	221
AS4000-03	3/8	1,670	25.5	1,670	25.5		214
AS4000-04	1/2	1,670	25.5	1,670	25.5		205
AS5000-02	1/4	2,840	44	2,840	44	40, 50, 63, 80, 100	242
AS5000-03	3/8	4,270	66	4,270	66		233
AS5000-04	1/2	4,270	66	4,270	66		224

Note) Supply pressure: 0.5MPa, Temperature: 20°C.

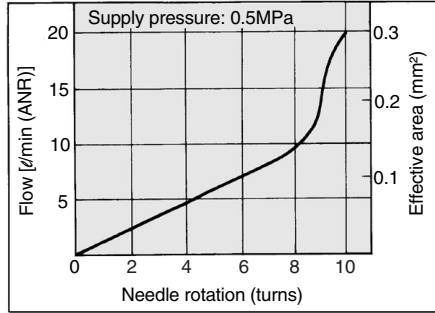
Accessories

Description	Part No.	Applicable model
Nipple	M-5N	AS1000

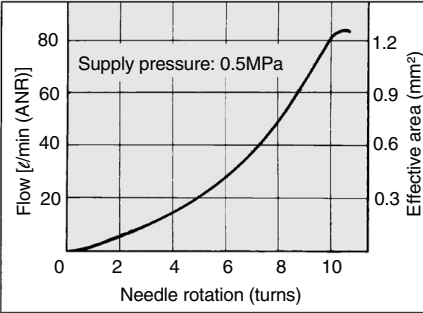
Note) AS1000 with nipple: AS1000-M5-N

Flow Characteristics

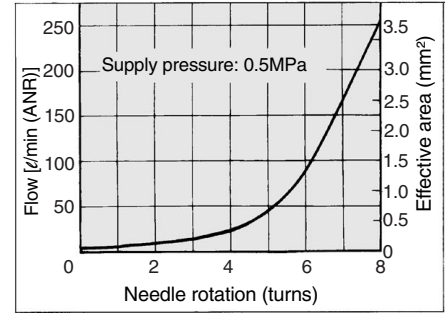
AS1000-M3



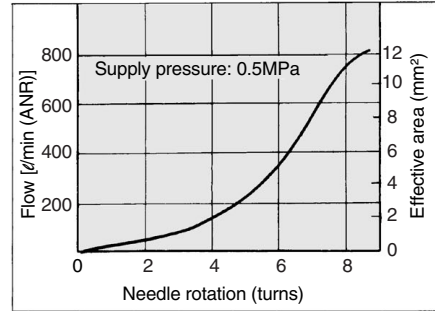
AS1000-M5



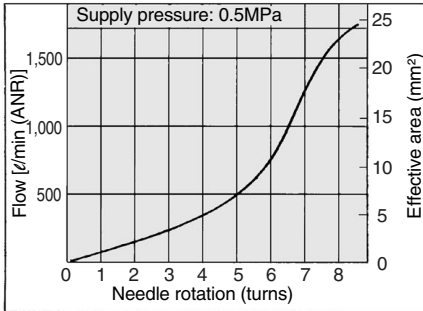
AS2000



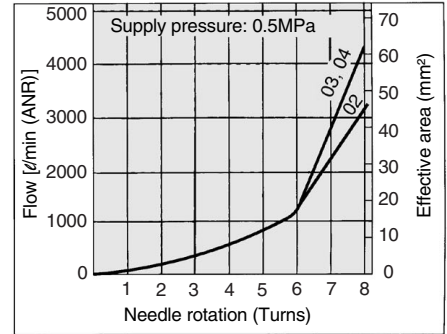
AS3000



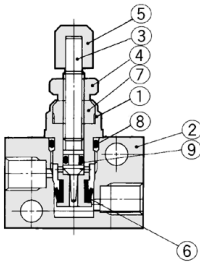
AS4000



AS5000



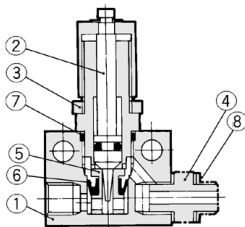
AS1000-M3/Construction



Component Parts

No.	Description	Material	Note
①	Body B	Brass	Electroless nickel plated
②	Body	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-packing	NBR	
⑦	Needle guide	Brass	Electroless nickel plated
⑧	O-ring	NBR	4.5 x 3 x 0.75
⑨	O-ring	NBR	2.2 x 0.8 x 0.7

AS1000-M5/Construction



Component Parts

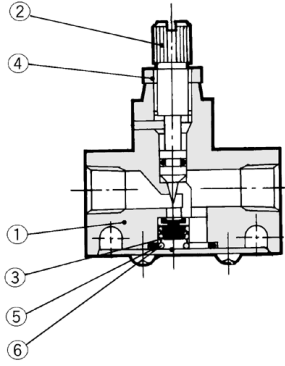
No.	Description	Material
①	Body	Zinc alloy
②	Needle	Stainless steel
③	Lock nut*	Brass
④	Nipple	Stainless steel

*Electroless nickel plated

Replacement Parts

No.	Description	Material	Part no.
⑤	Valve seat	Brass	1429138
⑥	U-packing	NBR	142964
⑦	O-ring	NBR	ø9 x ø7 x ø1
⑧	Gasket	PVC	M-5G1

AS2000, 3000/Construction



Component Parts

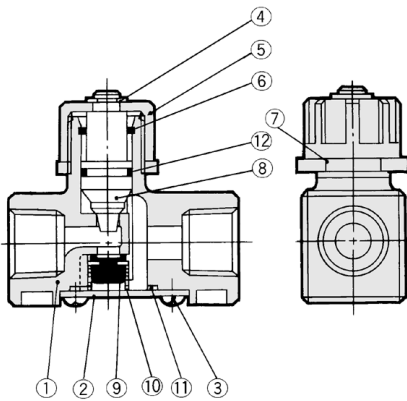
No.	Description	Model	
		AS2000	AS3000
①	Body	Zinc alloy	Aluminum alloy
②	Needle*	Brass	Brass
④	Lock nut*	Brass	Carbon steel

Replacement Parts

No.	Description	Model	
		AS2000	AS3000
③	Valve	143022	14283
⑤	O-ring	143021	14284
⑥	Spring	143023	14282

*Electroless nickel plated

AS4000/Construction



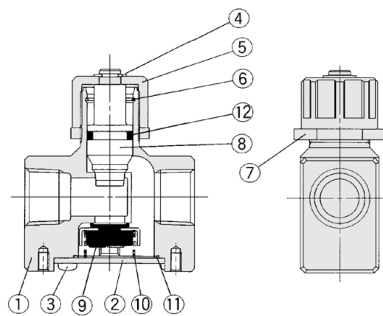
Component Parts

No.	Description	Material	Note
①	Body	Aluminum alloy	Chromated
②	Cap	Rolled steel	Zinc chromate
③	Head cap screw	Steel wire	4 x 0.7 x 8
④	E type snap ring	Stainless steel	JIS B2805 Nominal 6
⑤	Handle	Zinc alloy	
⑥	Ring	Steel wire	Zinc chromated
⑦	Lock nut	Zinc alloy	
⑧	Needle	Aluminum alloy	
⑫	O ring	NBR	143112

Replacement Parts

No.	Description	Material	Part No.
⑨	Valve	NBR, Brass	143145
⑩	Spring	Stainless steel	143146
⑪	O-ring	NBR	143147

AS5000/Construction



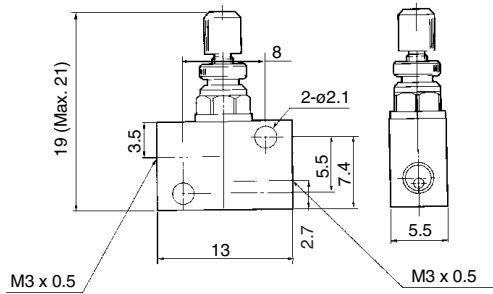
Component Parts

No.	Description	Material	Note
①	Body	Aluminum alloy	Chromated
②	Cap	Rolled steel	Nickel plated
③	Head cap screw	Steel wire	M4 x 0.7 x 8 Nickel plated
④	E type snap ring	Stainless steel	JIS B 2805 Nominal 6
⑤	Handle	Zinc alloy	Chromated
⑥	Ring	Stainless steel	
⑦	Lock nut	Zinc alloy	Chromated
⑧	Needle	Aluminum alloy	Chromated
⑫	O-ring	NBR	JIS B2401 P12

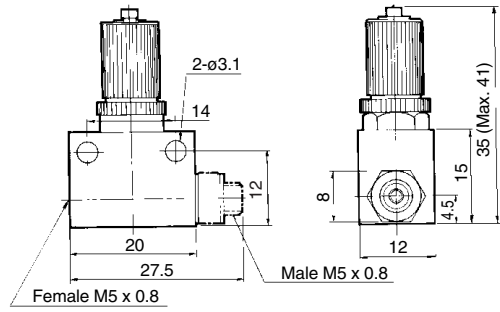
Replacement Parts

No.	Description	Material	Part No.
⑨	Valve	NBR, Stainless steel	14143
⑩	Spring	Stainless steel	14144
⑪	Packing	NBR	14147

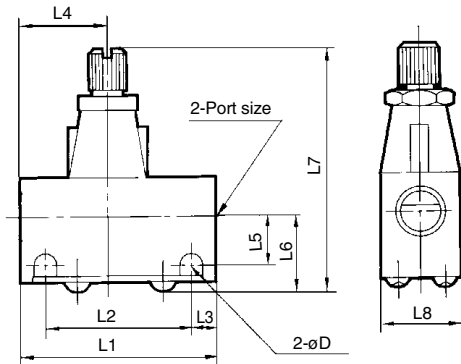
AS1000-M3/Dimensions



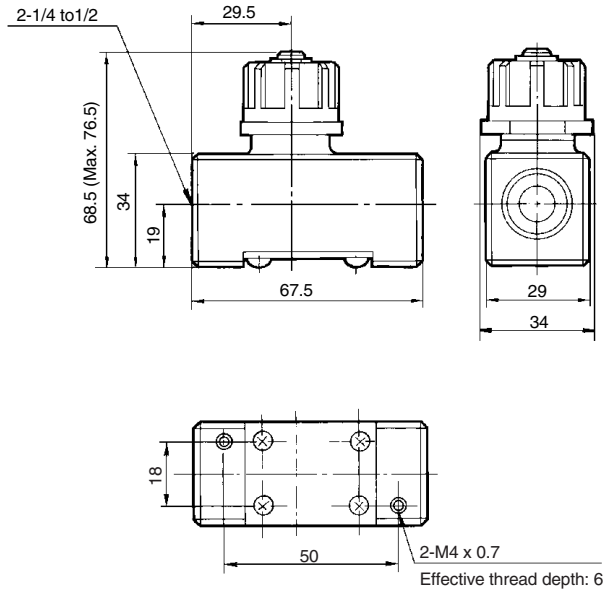
AS1000-M5/Dimensions



AS2000, 3000/Dimensions



AS4000/Dimensions

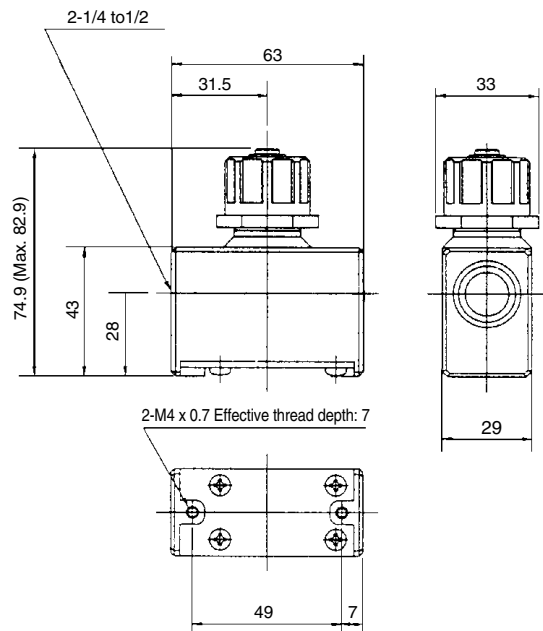


Dimensions

Model	Port size	L1	L2	L3	L4	L5	L6	L7		L8	D
								Max.	Min.		
AS2000-01	Rc1/8	40	30	5	17	10	15.5	54.5	50	16	4.5
AS2000-02	Rc1/4	40	30	5	23	11.5	17	56	51.5	20	4.5
AS3000-02, 03	Rc1/4, 3/8	56	45.5	5.25	25	13.2	20.6	68	61	26	5.5

- AS1000-M3.....SAS001, #1
- AS1000-M5.....SAS001, #2
- AS2000-01SAS001, #3
- AS2000-02SAS001, #4
- AS3000-02 to 03 ...SAS001, #5
- AS4000-02 to 04 ...SAS001, #7

AS5000/Dimensions





Speed Controller Standard Type

Series AS

Large Flow In-line Type

Constant speed easily set.

Speed may be accurately controlled even at low speeds.

Retainer prevents accidental loss of needle.



How to Order

N **AS** **42** **0** — [] []

Area Code

Nil	Japan, Asia, Australia, UK
N	U.S.A.

Body size

42	1/2
50	3/4
60	1
80	1 1/4
90	1 1/2

Port size

Port size	Applicable model
02	AS420
03	
04	
06	AS500
10	AS600
12	AS800
14	AS900
20	

Port thread

Nil	Rc
N	NPT
F	PF

Specifications

Proof pressure	1.5MPa
Maximum operating pressure	1MPa
Minimum operating pressure	0.05MPa
Ambient and fluid temperature	-5° to 60°C (No freezing)
Number of needle rotations	10 turns (12 turns ^{Note 1)})

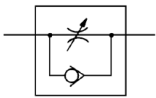
Note 1) (): Values for AS800, AS900.

Model

Model	Port size	Free flow		Controlled flow		Applicable cylinder bore size (mm)	Weight (kg)
		Air flow [l/min (ANR)]	Effective area (mm ²)	Air flow [l/min (ANR)]	Effective area (mm ²)		
AS420-02	1/4	2,500	38	3,600	55	63, 80, 100, 125	0.34
AS420-03	3/8	5,000	77	4,800	74		0.33
AS420-04	1/2	6,600	100	6,700	102		0.32
AS500-06	3/4	10,100	154	8,100	123	140, 160, 180, 200	0.36
AS600-10	1	15,100	230	16,900	258	160, 180, 200, 250	0.7
AS800-12	1 1/4	35,400	540	38,500	586	300	1.4
AS900-14	1 1/2	52,000	792	47,500	724		3.3
AS900-20	2	57,800	880	60,800	926		3.3

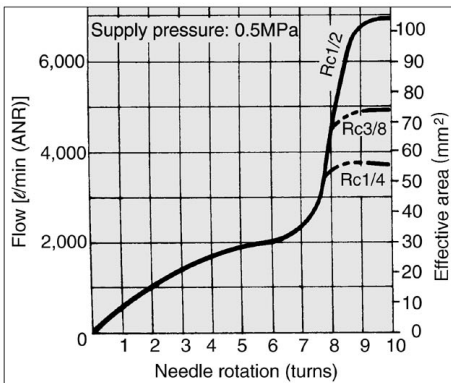
Note) Supply pressure: 0.5MPa, Temperature: 20°C.

JIS Symbol

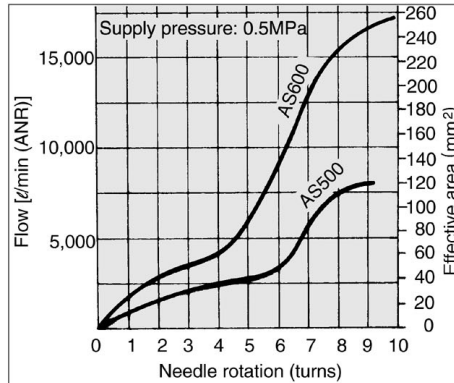


Flow Characteristics

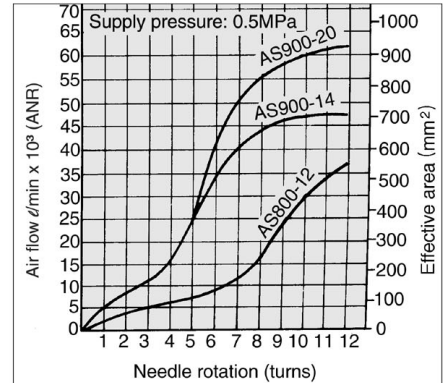
AS420



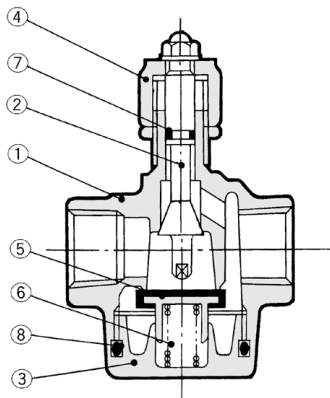
AS500/600



AS800/900



AS420, 500, 600/Construction



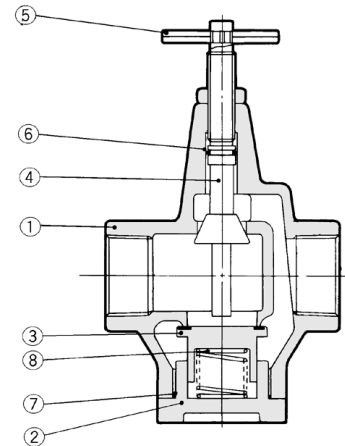
Component Parts

No.	Description	Material	Note
①	Body	Aluminum alloy	Chromated
②	Needle	Brass	—
③	Bottom cover	Aluminum alloy	Chromated
④	Handle	Zinc alloy	Black painted

Replacement Parts

No.	Description	Material	Part no.	
			AS420-500	AS600
⑤	Check valve	Brass	14254	14273
⑥	Spring	Stainless steel	14255	14275
⑦	O-ring	NBR	JISB2401 P-7	JISB2401 P-7
⑧	O-ring	NBR	JISB2401 P-38	JISB2401 P-48

AS800, 900/Construction



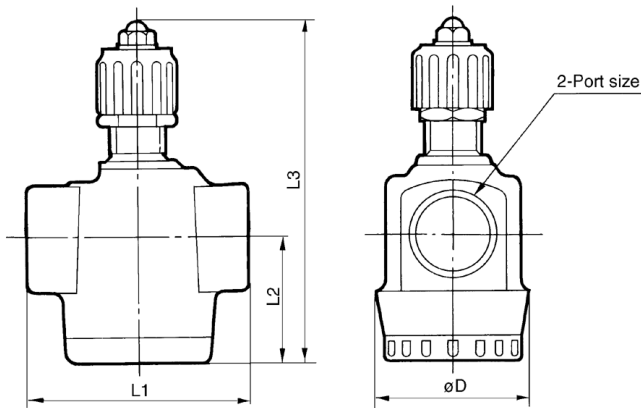
Component Parts

No.	Description	Material	Note
①	Body	Aluminum alloy	Chromated
②	Valve guide	Aluminum alloy	Chromated
③	Check valve	Brass	Rubber lining
④	Needle	Brass	—
⑤	Handle	Carbon steel	Chromated

Replacement Parts

No.	Description	Material	Part no.	
			AS800	AS900
⑥	O-ring	NBR	JISB2401 P-12	JISB2401 P-16
⑦	O-ring	NBR	JISB2401 G-50	JISB2401 G-65
⑧	pring	Stainless steel	14115	14124

AS420, 500, 600/Dimensions

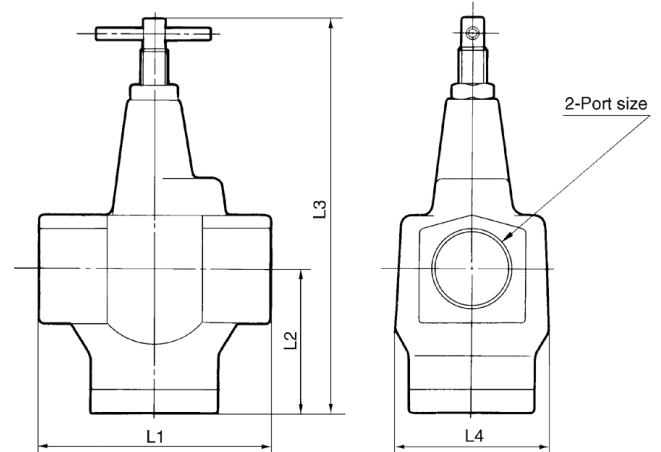


Dimensions

Model	Port size	L1	L2	L3		D
				Max.	Min.	
AS420	1/4, 3/8, 1/2	67.5	38	122	112	50
AS500	3/4	74	42	115	105	50
AS600	1	90	55	158	148	62

	AS420-02 to 04.....SAS001, #8
	AS500-06.....SAS001, #9
	AS600-10.....SAS001, #10
	AS800-12.....SAS001, #11
	AS900-14.....SAS001, #12
	AS900-20.....SAS001, #12

AS800, 900/Dimensions



Dimensions

Model	Port size	L1	L2	L3		L4
				Max.	Min.	
AS800	1 1/2	120	74	204	192	80
AS900	1 1/2, 2	150	93	262	250	94



Speed Controller Series AS3500

Locking In-line Type

Lock speed setting, with the touch of a button

It can be locked only by pushing the handle after adjustment.

Convenient opening indication scale

The opening indication scale for the needle valve is provided on the handle to facilitate speed adjustments.

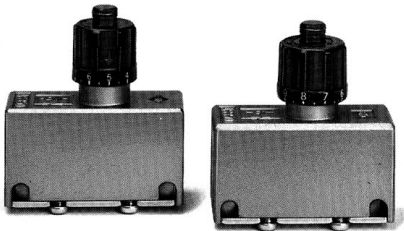
Easy speed control at low flow volume ranges

Possible to control the mass velocity

Constant knob constructed of metal to withstand heavy usage

In addition to the standard handle made of resin, a heavy-duty metal handle is also available.

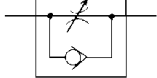
Retainer prevents accidental loss of needle



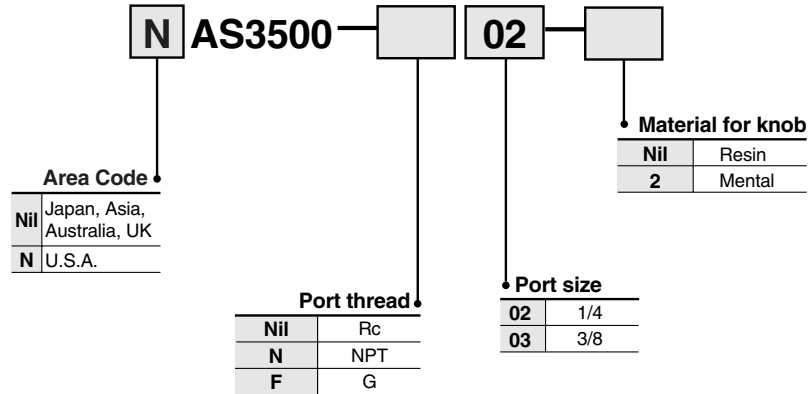
AS3500-02
(Resin knob)

AS3500-02-2
(Metal knob)

JIS Symbol



How to Order

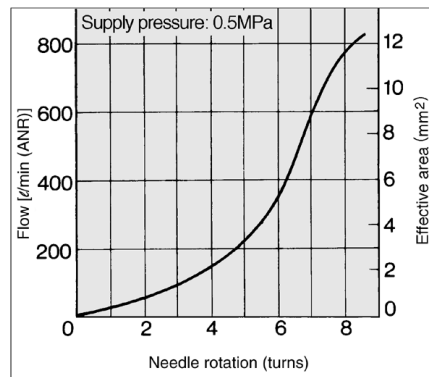


Specifications

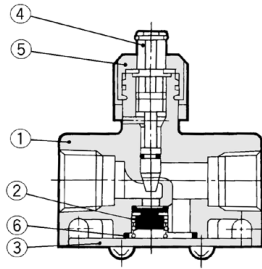
Model	Resin knob	AS3500-02	AS3500-03
	Metal knob	AS3500-02-2	AS3500-03-2
Port size		1/4	3/8
Applicable cylinder bore size (mm)		40, 50, 63	
Proof pressure		1.5MPa	
Maximum operating pressure		1MPa	
Minimum operating pressure		0.05MPa	
Ambient and fluid temperature		-5° to 60°C (No freezing)	
Number of needle rotations		8 turns	
Weight		130g (Metallic handle: 140g)	
Free flow	Air flow [ℓ/min(ANR)]	810	
	Effective area (mm ²)	12.3	
Controlled flow	Air flow [ℓ/min(ANR)]	810	
	Effective area (mm ²)	12.3	

Note) Supply pressure: 0.5MPa, Temperature: 20°C.

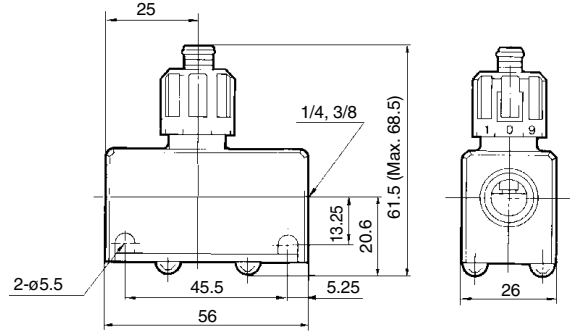
Needle/Flow Characteristics AS3500



Construction



Dimensions



Component Parts

No.	Description	Material	Note
①	Body	Aluminum alloy	Chromated
②	Valve	NBR	
③	Cap	Rolled steel	Electroless nickel plated
④	Needle	Brass	
⑤	Handle	POM	Black
		Zinc alloy	Black

Replacement Parts

No.	Description	Material	Part no.
⑥	O-ring	NBR	14284



AS3500-02 to 03.....SAS001, #6