

Speed Controller with Pilot Check Valve

Series ASP

360° freedom for tube
mounting direction
Standard electroless nickel
plating specification



Model

Part No.	Port size	Pilot port	Applicable tube outside diameter										
			Millimeter size				Inch size						
			ø6	ø8	ø10	ø12	ø1/4"	ø5/16"	ø3/8"	ø1/2"			
ASP330F-01	R(PT)1/8	M5	●	●									
ASP430F-02	R(PT)1/4	Rc(PT)1/8	●	●									
ASP530F-03	R(PT)3/8	Rc(PT)1/8		●	●								
ASP630F-04	R(PT)1/2	Rc(PT)1/4			●	●							
ASP430F-F02	R(PT)1/4	G(PF)1/8	●	●									
ASP530F-F03	R(PT)3/8	G(PF)1/8		●	●								
ASP630F-F04	R(PT)1/2	G(PF)1/4			●	●							
ASP330F-N01	NPT1/8	10-32UNF						●	●				
ASP430F-N02	NPT1/4	NPT1/8						●	●				
ASP530F-N03	NPT3/8	NPT1/8							●	●			
ASP630F-N04	NPT1/2	NPT1/4								●	●		

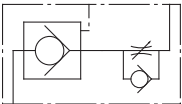
Note) All brass parts are electroless nickel plated.

Specifications

Proof pressure	1.5MPa{15.3kgf/cm ² }
Maximum operating pressure	1MPa{10.2kgf/cm ² }
Minimum operating pressure	0.1MPa{1kgf/cm ² }
Pilot check valve actuation pressure	50% or more of operating pressure
Ambient & fluid temperature	-5 to 60°C (Without freezing)
Number of needle revolutions	10 revolutions
Applicable tube material	Nylon, Soft nylon, Polyurethane

Note) Use caution with soft nylon or polyurethane at maximum operating pressures.

JIS Symbol



Flow Rate and Effective Sectional Area

Model		ASP330F	ASP430F		ASP530F		ASP630F	
Tube outside diameter	Millimeter size	ø6, ø8	ø6	ø8	ø8	ø10	ø10	ø12
	Inch size	ø1/4" ø5/16"	—	ø1/4" ø5/16"	ø5/16"	ø3/8"	—	ø3/8" ø1/2"
Controlled flow (Free flow)	Flow rate ℓ/min (ANR){N ℓ/min}	180	330	350	600	750	1100	1190
	Effective sectional area mm ²	2.9	5.2	5.4	9.3	11.6	17	18.4

Note) The indicated flow rate values are at a pressure of 0.5MPa and a temperature of 20°C.

How to Order

ASP 3 30 F-01-06 S — **Made to Order**

Pilot check valve
Body size
Type
With One-touch fittings
With seals
Applicable tube outside diameter
Port size

Lock nut option	
—	Hexagon lock nut
J	Round lock nut

Body size	
3	1/8 standard
4	1/4 standard
5	3/8 standard
6	1/2 standard

Type	
3	Universal

Applicable tube outside diameter	
Millimeter size	Inch size
06	ø6
08	ø8
10	ø10
12	ø12
07	ø1/4"
09	ø5/16"
11	ø3/8"
13	ø1/2"

Symbol	Cylinder side	Pilot port
01	R(PT)1/8	M5
02	R(PT)1/4	Rc(PT)1/8
03	R(PT)3/8	Rc(PT)1/8
04	R(PT)1/2	Rc(PT)1/4
F02	R(PT)1/4	G(PF)1/8
F03	R(PT)3/8	G(PF)1/8
F04	R(PT)1/2	G(PF)1/4
N01	NPT1/8	10-32UNF
N02	NPT1/4	NPT1/8
N03	NPT3/8	NPT1/8
N04	NPT1/2	NPT1/4

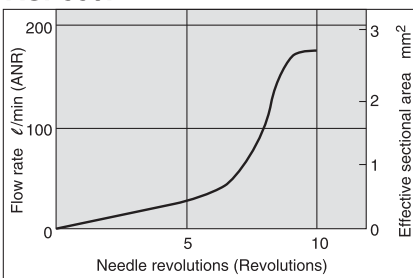
Made to Order

1 Lubricant: Vaseline

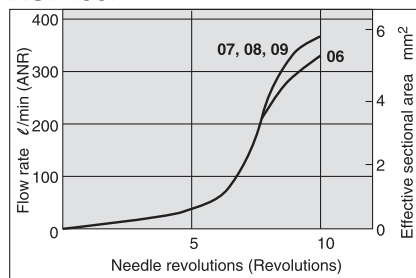
X12

Needle Valve/Flow Rate Characteristics

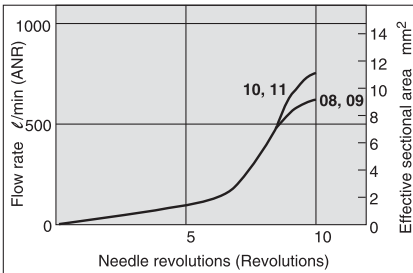
ASP330F



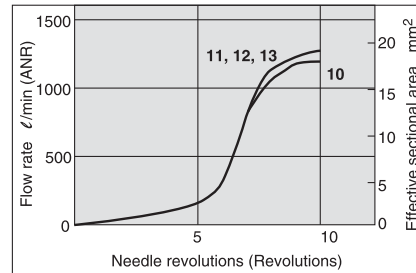
ASP430F



ASP530F



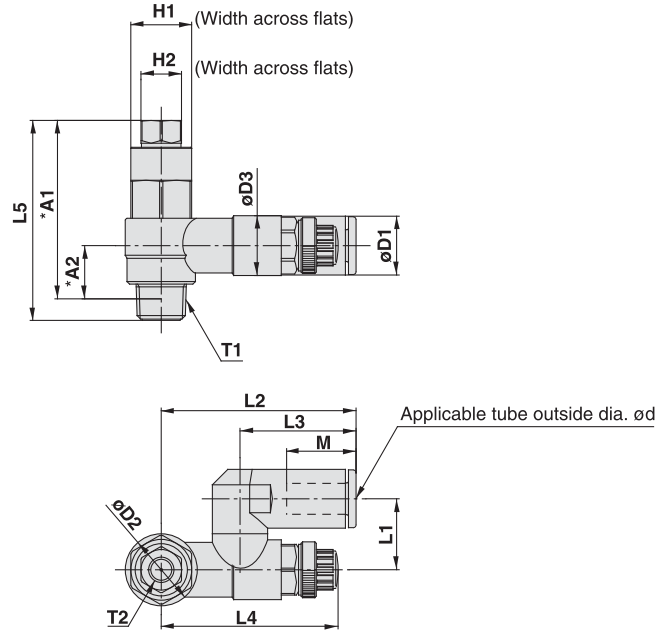
ASP630F



Series ASP

Dimensions

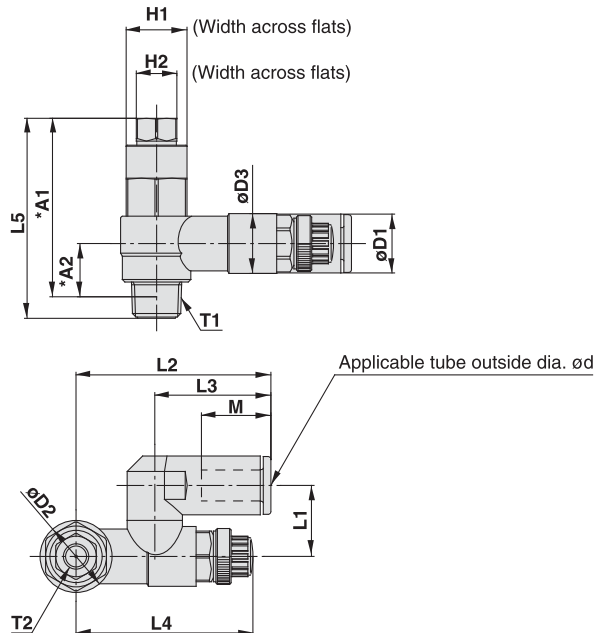
Millimeter size



Model	d	T1	T2	H1	H2	D1	D2	D3	L1	L2	L3	L4		L5	*A1	*A2	M	Weight g
												MAX.	MIN.					
ASP330F-01-06S	6	1/8	M5	12	8	11.6	14.2	11.8	14	38.4	22.9	39.6	34.6	39.5	35.2	10.5	13.7	32
ASP330F-01-08S	8					15.2						38.9	33.9					
ASP430F-02-06S	6	1/4	Rc(PT)1/8	17	12	12.8	18.5	15	18	43.4	25.2	41.7	36.7	48.7	42.4	10.9	16.8	65
ASP430F-02-08S	8					15.2												
ASP530F-03-08S	8	3/8	Rc(PT)1/8	19	12	15.2	23	19.8	20.3	51.3	28.2	46.9	41.9	56.2	50	14.4	18.7	107
ASP530F-03-10S	10					18.5												
ASP630F-04-10S	10	1/2	Rc(PT)1/4	24	17	18.5	28.6	26.5	25.9	64.2	32.6	64.8	57.3	70.3	61.8	18.3	20.8	212
ASP630F-04-12S	12					20.9												

* Reference dimensions for R(PT) threads after installation.

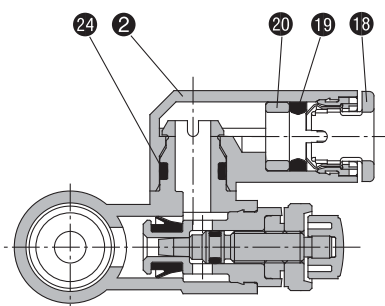
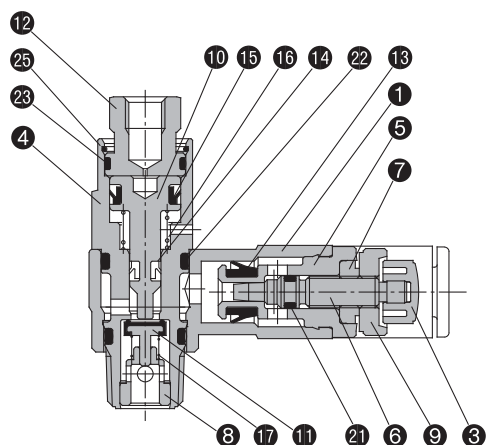
Inch size



Model	d	T1	T2	H1	H2	D1	D2	D3	L1	L2	L3	L4		L5	*A1	*A2	M	Weight g
												MAX.	MIN.					
ASP330F-N01-07S	1/4"	NPT1/8	10-32UNF	1/2"	8	13.2	14.2	11.8	15.8	42.2	25.6	38.9	33.9	39.5	35.1	10.5	17	35
ASP330F-N01-09S	5/16"					15.2												
ASP430F-N02-07S	1/4"	NPT1/4	NPT1/8	11/16"	1/2"	13.2	18.5	15	18	43.9	25.6	41.7	36.7	48.7	42.6	10.9	17	68
ASP430F-N02-09S	5/16"					15.2												
ASP530F-N03-09S	5/16"	NPT3/8	NPT1/8	19	1/2"	15.2	23	19.8	20.3	51.3	28.2	46.9	41.9	56.2	50.3	14.4	18.7	107
ASP530F-N03-11S	3/8"					18.5												
ASP630F-N04-11S	3/8"	NPT1/2	NPT1/4	15/16"	11/16"	18.5	28.6	26.5	25.9	64.2	32.6	64.8	57.3	70.3	61.8	18.3	20.8	220
ASP630F-N04-13S	1/2"					21.7												

* Reference dimensions for NPT threads after installation.

Construction



Parts list

No.	Description	Material	Note
①	Body A	PBT	
②	Elbow body	PBT	
③	Knob	PBT	
④	Pilot body	Brass	Electroless nickel plated
⑤	Body B	Brass	Electroless nickel plated
⑥	Needle	Brass	Electroless nickel plated
⑦	Needle guide	Brass	Electroless nickel plated
⑧	Guide	Brass	Electroless nickel plated
⑨	Lock nut	Steel	Zinc chromated
⑩	Piston	Brass	Electroless nickel plated
⑪	Valve	Stainless steel, NBR	
⑫	Cover	Brass	Electroless nickel plated
⑬	U seal	HNBR	

Parts list

No.	Description	Material	Note
⑭	DY seal	NBR	
⑮	DY seal	NBR	
⑯	Spring	Stainless steel	
⑰	Spring	Stainless steel	
⑱	Cassette	—	
⑲	Seal	NBR	
⑳	Spacer	—	
㉑	O-ring	NBR	
㉒	O-ring	NBR	
㉓	O-ring	NBR	
㉔	O-ring	NBR	
㉕	Ring	Stainless steel	

