

# 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								●	●		

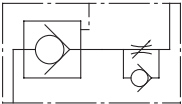
Note) All brass parts are electroless nickel plated.

## Specifications

Proof pressure	1.5MPa{15.3kgf/cm <sup>2</sup> }
Maximum operating pressure	1MPa{10.2kgf/cm <sup>2</sup> }
Minimum operating pressure	0.1MPa{1kgf/cm <sup>2</sup> }
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.  
For details, refer to the catalog on "Air Fittings & Tubing" for pneumatic piping CAT. E 501-B.

## JIS Symbol

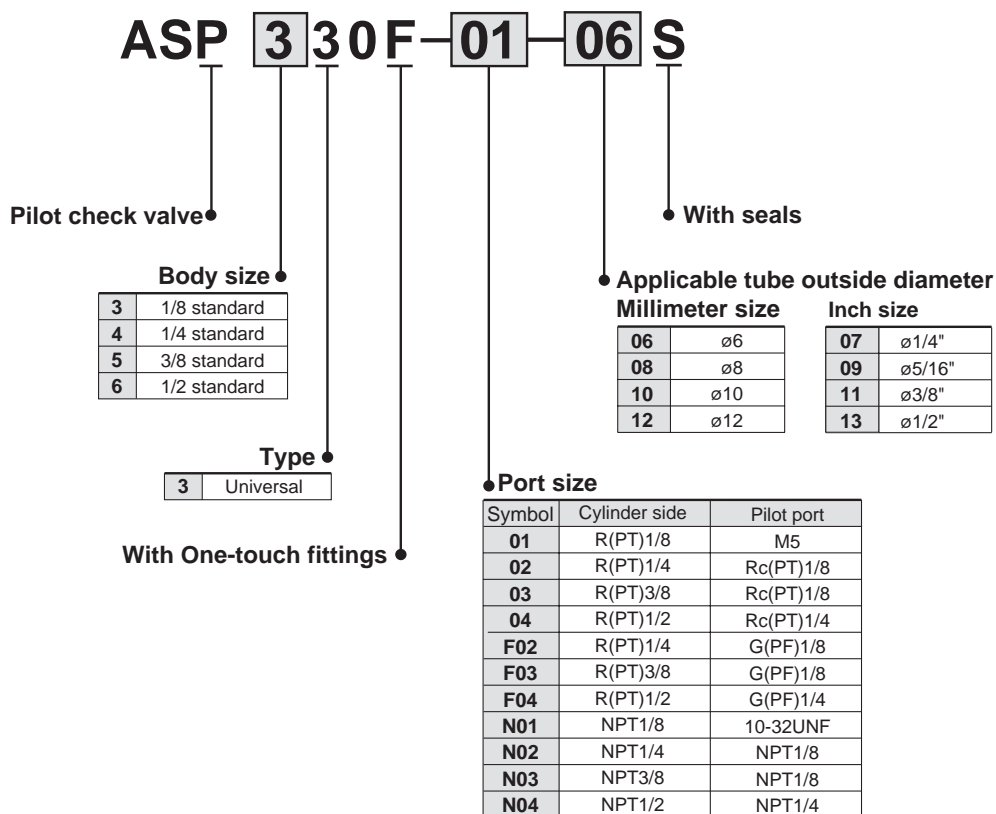


## Flow Rate and Effective Sectional Area

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 <sup>2</sup>	2.9	5.2	5.4	9.3	11.6	17	18.4

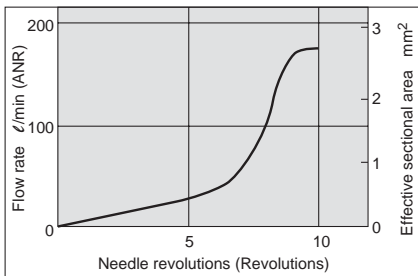
Note) The indicated flow rate values are at a pressure of 0.5MPa and a temperature of 20°C.

## How to Order

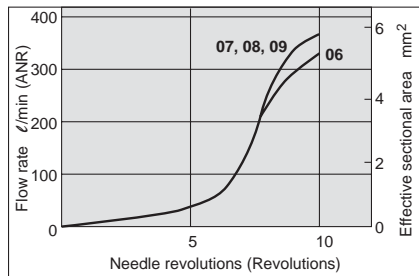


## Needle Valve/Flow Rate Characteristics

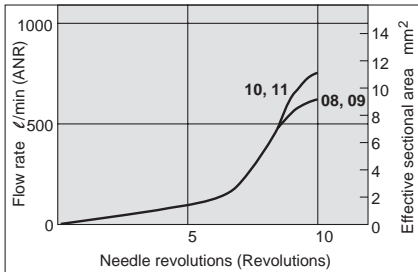
**ASP330F**



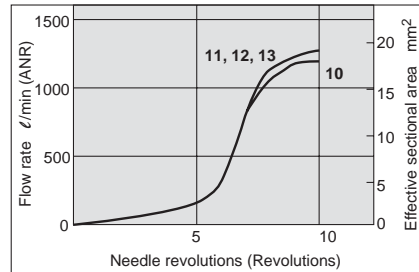
**ASP430F**



**ASP530F**



**ASP630F**

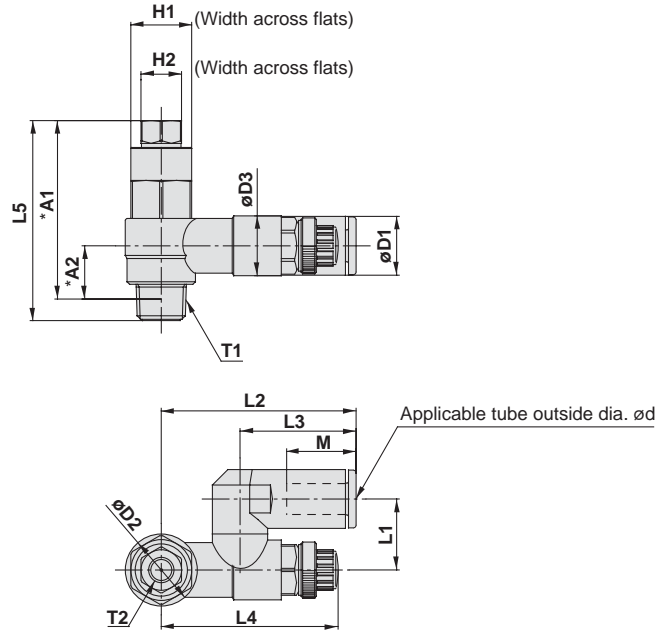


- AS
- ASN
- AQ
- ASV
- AK
- ASS

# Series ASP

## Dimensions

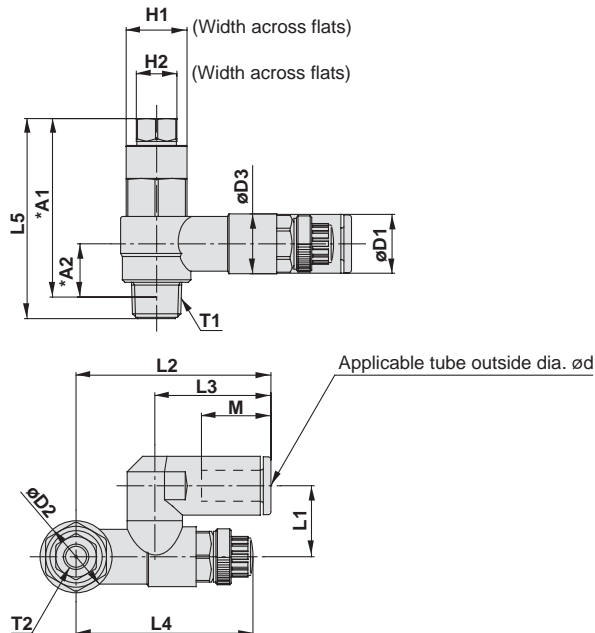
### Millimeter size



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.

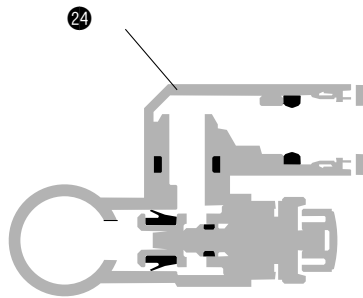
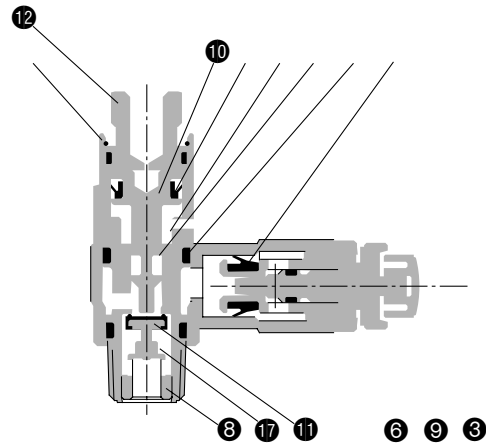
### Inch size



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

	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	Brass	Electroless nickel plated
⑩	Piston	Brass	Electroless nickel plated
⑪	Valve	Stainless steel, NBR	
⑫	Cover	Brass	Black zinc chromated
⑬	U seal	NBR	

### Parts list

	Description	Material	Note
⑭	DY seal	PBT	
⑮	DY seal	PBT	
⑯	Spring	Stainless steel	
⑰	Spring	Stainless steel	
⑱	Cassette	POM, Stainless steel <sup>Note 1)</sup>	
⑲	Seal	NBR	
⑳	Spacer	POM <sup>Note 2)</sup>	
㉑	O-ring	NBR	
㉒	O-ring	NBR	
㉓	O-ring	NBR	
㉔	O-ring	NBR	
㉕	Ring	Stainless steel	

Note 1)  $\phi 10$ ,  $\phi 12$ ,  $\phi 3/8$ ",  $\phi 1/2$ " are POM, stainless steel and brass (electroless nickel plated).  
 Note 2)  $\phi 1/4$ ",  $\phi 3/8$ ",  $\phi 1/2$ " are brass (electroless nickel plated).

AS

ASN

AQ

ASV

AK

ASS