

Spring type Piston Actuator Piston motor

Model PSA6 / PSA7

OVERVIEW

Model PSA6/ PSA7 cylinders are spring type piston cylinder provided with higher supply air pressure and output force. It is generally used as an actuator in high pressure service.

SPECIFICATIONS

Type

Spring type piston cylinder

Action

Reverse acting

Materials

	PSA6R	PSA7R
Cylinder	FCD450	
Piston	FCD450	SS400
Yoke	SCPH2	
Actuator rod	SUS304	
Sealing parts	O-ring (NBR) Wear ring (PTFE)	

Spring

PSA6R

100 to 180 kPa {1.0 to 1.8 kgf/cm²}
 200 to 255 kPa {2.0 to 2.6 kgf/cm²}
 200 to 295 kPa {2.0 to 3.0 kgf/cm²}
 200 to 340 kPa {2.0 to 3.5 kgf/cm²}
 200 to 390 kPa {2.0 to 4.0 kgf/cm²}

PSA7R

200 to 270 kPa {2.0 to 2.8 kgf/cm²}
 200 to 305 kPa {2.0 to 3.1 kgf/cm²}
 200 to 340 kPa {2.0 to 3.5 kgf/cm²}

Supply air pressure

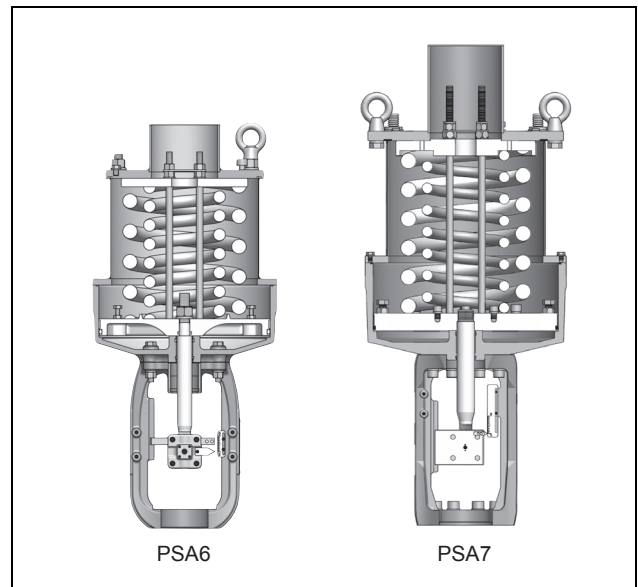
260 to 500 kPa {2.6 to 5.0 kgf/cm²}

Air connection

Rc1/4, Rc3/8,
 1/4NPT or 3/8NPT internal thread as option

Ambient temperature range

-30 to 70 °C



Optional accessories (provided upon request)

Positioner*, pressure regulator with filter, Manual operating device*, limit switch, solenoid valve, motion transmitter, booster relay, lock-up valve, and others.

Note) Accessories with the asterisk mark () are selected from the following types depending on the actuators to be combined.*

Model number	Positioner		Manual operating device
	P/P	I/P	
PSA6R	HTP/ VPP08	AVP/HEP	Side mounted hand wheel
PSA7R	VPP08	AVP/HEP	Side mounted hydraulic operator

Performance (With positioner)

Output force : Refer to Table 1
 Hysteresis error: Within 2% F.S.
 Linearity : Within ± 2% F.S.

External dimensions

Refer to Figure 1, 2 and Table 2, 3.

Weight

Refer to Table 2 and 3.

Finish

Blue (Munsell 10B5/10), silver is also available as standard.

Table 1 Output force, stroke, etc.

Model No.	Maximum stroke (mm)	Spring range	Nominal cylinder area (cm ²)	Internal capacity of the cylinder (ℓ)	Output force
PSA6R	14.3	200 to 255 kPa {2.0 to 2.6 kgf/cm ² }	1,100	3.9	22,000 N {2,200 kgf}
	25	200 to 295 kPa {2.0 to 3.0 kgf/cm ² }		5.1	
	38	100 to 180 kPa {1.0 to 1.8 kgf/cm ² }		6.6	
		200 to 340 kPa {2.0 to 3.5 kgf/cm ² }			
	50	200 to 390 kPa {2.0 to 4.0 kgf/cm ² }		8.1	
100	200 to 340 kPa {2.0 to 3.5 kgf/cm ² }	14.4			
PSA7R	50	200 to 270 kPa {2.0 to 2.8 kgf/cm ² }	2,030	17.2	40,000 N {4,000 kgf}
	75	200 to 305 kPa {2.0 to 3.1 kgf/cm ² }		22.7	
	100	200 to 340 kPa {2.0 to 3.5 kgf/cm ² }		28.2	

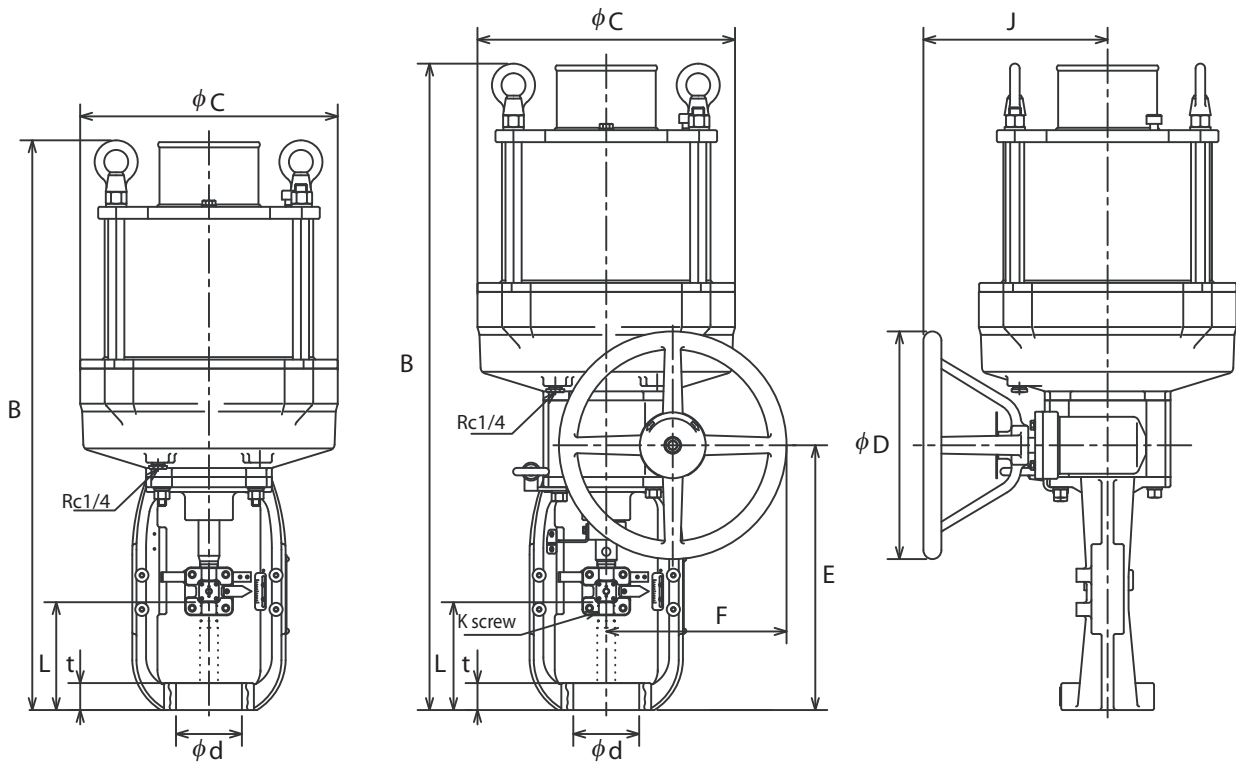


Fig.1-1 Without hand wheel

Fig.1-1 With hand wheel (front)

Fig.1-3 With hand wheel (side)

Figure 1 External dimensions of PSA6R

Table 2 External dimensions and weight of PSA6R

[unit : mm]

Model No.	Maximum stroke	Manual hand wheel	B	ϕC	L	K screw	t	ϕd	F	E	J	ϕD	Weight (kg)
PSA6R	50	Without	951	479	180	M28 × 1.5	45	110	-	-	-	-	165
		With	1,079						301	446	307	380	200
	100	Without	1,251						-	-	-	-	210
		With	1,430						301	492	307	380	250

Note) L dimensions are as measured when the piston is in the lower end position

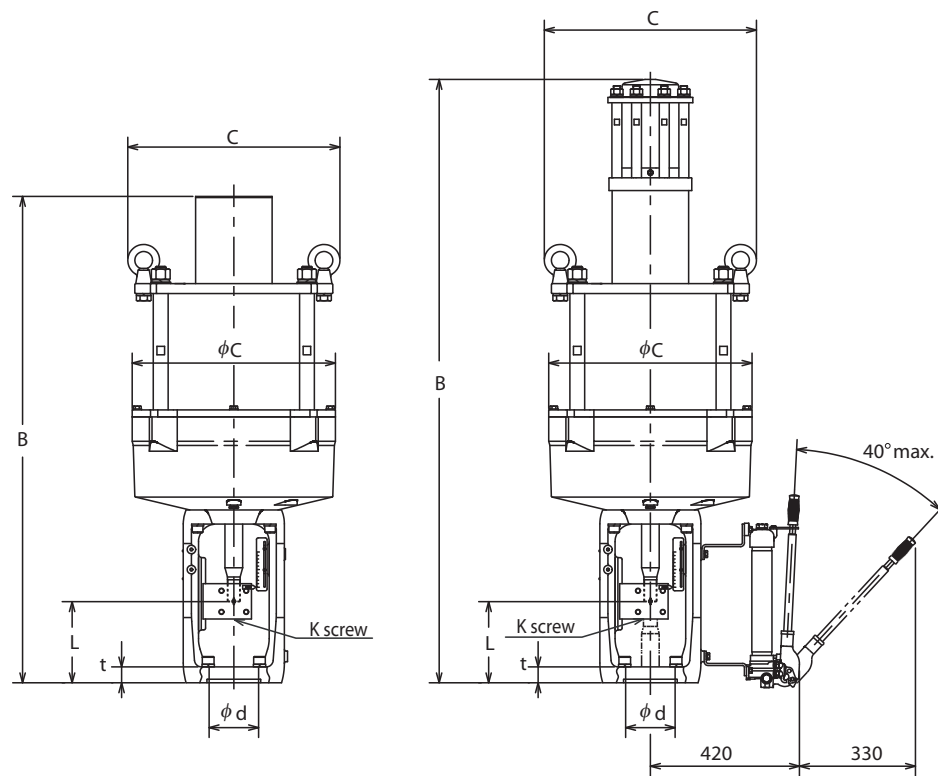


Fig.2-1 Without hand wheel

Fig.2-2 With Hydraulic hand wheel

Figure 2 External dimensions of PSA7R

Table 3 External dimensions and weight of PSA7R

[unit : mm]

Model No.	Maximum stroke	Manual hand wheel	B	C	φ C	L	K screw	t	φ d	Weight (kg)
PSA7R	100	Without	1380	600	650	230	M39 × 2	45	138	450
		Equiped (Hydraulic)	1715							550

L dimensions are as measured when the piston is in the lower end position

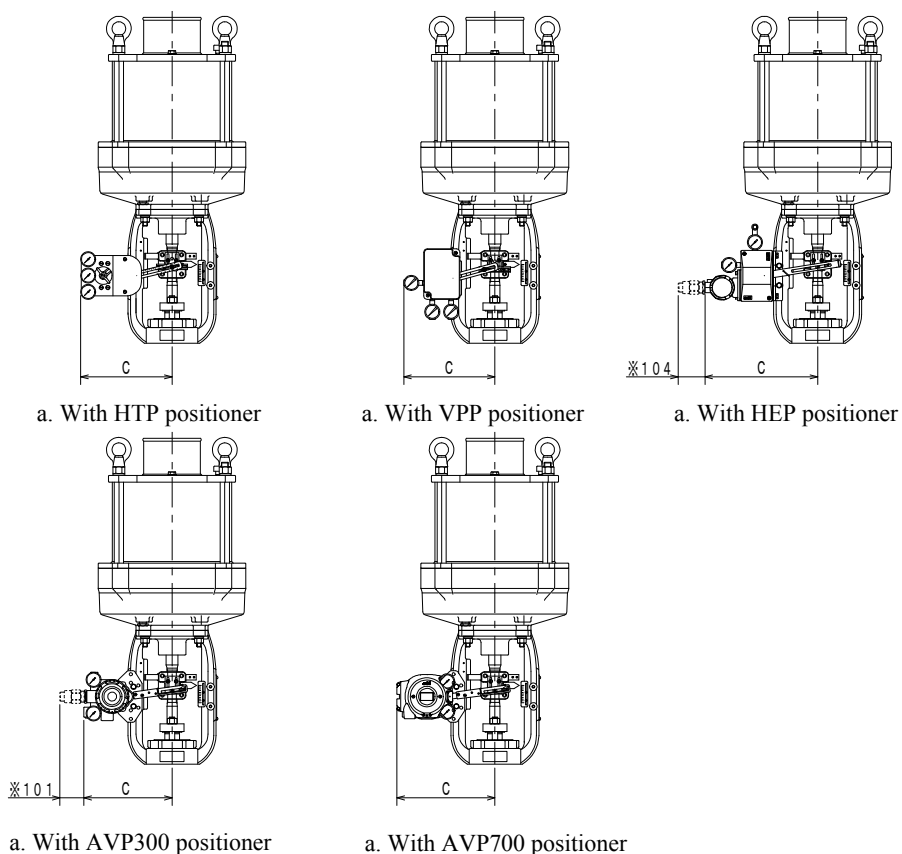


Figure 3 Dimensions of actuator with positioner

Table 4

[unit : mm]

Model No.	P/P positioner		I/P positioner				
	HTP	VPP	HEP	AVP300 (KZ03 mounted on positioner)	AVP300 (KZ03 with bracket for separated mount)	AVP700 (KZ03 mounted on positioner)	AVP700 (KZ03 with bracket for separated mount)
PSA6	266	265	328	348	257	362	285
PSA7	-	275	342	356	265	370	293

Ordering Information

When ordering, please specify;

- 1) Model Number: PSA6 / 7
- 2) Spring range
- 3) Stroke
- 4) Optional accessories

Note

Please, read 'Terms and Conditions' from following URL before the order and use.

<http://www.azbil.com/products/bi/order.html>

Specifications are subject to change without notice.

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