

Springless Type Piston Cylinder Piston Motor

Model DAP560/1000/1500

OVERVIEW

Model DAP piston motor is a high-power double-acting cylinder. It is generally used as an actuator for a high-pressure control valve. For proportional control, use the DAP along with the AVP___ electro-pneumatic smart positioner with reversing relay or the VPP__ pneumatic positioner.

SPECIFICATIONS

Types

Springless type piston cylinder

Action

Direct or Reverse action

Materials

- Cylinder, Yoke : Carbon steel (SCPH2)
- Piston rod : Stainless steel (SUS304)
- Guide bushing : Bronze (BC6)

Supply pressure

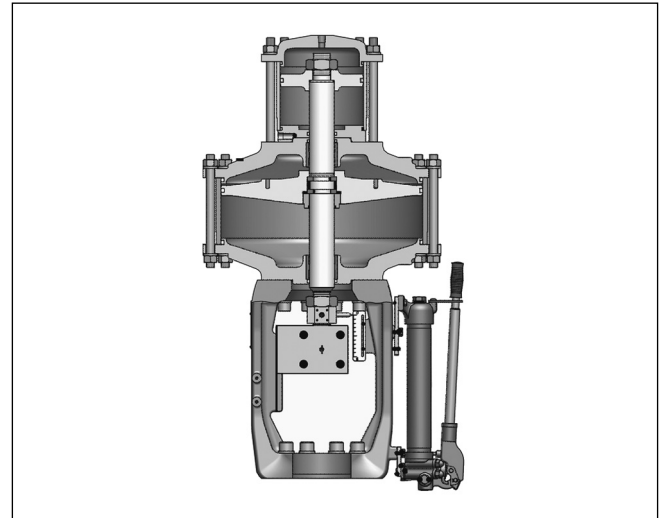
200 to 700 kPa {2 to 7 kgf/cm²}

Air connection

Rc 1/4, Rc 3/8, Rc 1/2, 1/4NPT, 3/8NPT

Ambient temperature

-30°C to +70°C



Optional accessories

Positioner (AVP___ with reversing relay, VPP__), pressure regulator with filter, manual handle (hydraulic), limit switch, solenoid valve, motion transmitter, air fail back-up system, air fail lock system and others.

Note) For the specifications of optional items, refer to the specification sheet or installation drawings of respective accessories.

Performance

Hysteresis error

With positioner : Within 1% F.S.

Linearity

With positioner : Within + 1% F.S.

Table 1. Output Force and Stroke

Unit: kN{kgf/cm²}

Item	Maximum Stroke (mm)	Cylinder Dia. (mm)	Output Force (According to supply air press. kPa{kgf/cm ² })					
			200 {2.0}	300 {3.0}	400 {4.0}	500 {5.0}	600 {6.0}	700 {7.0}
DAP560	50/100/150	300	11.2 {1,100}	16.8 {1,700}	22.4 {2,200}	28.0 {2,800}	33.6 {3,400}	39.2 {3,900}
DAP1000		390	20.0 {1,900}	30.0 {2,900}	40.0 {3,800}	50.0 {4,800}	60.0 {5,700}	70.0 {6,700}
DAP1500		484	30.0 {2,900}	45.0 {4,400}	60.0 {5,800}	75.0 {7,300}	90.0 {8,800}	105.0 {10,200}

Note) When the control end device is under an adverse condition (such that the stability is poor), it is recommended to select the output at 50 to 70% of the values indicated in the table.

DIMENSIONS

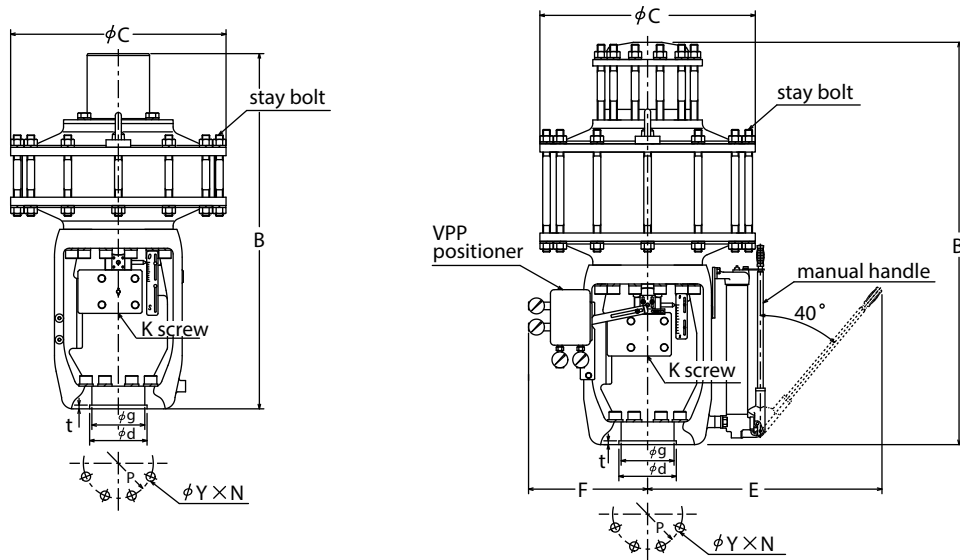


Figure 1. External dimensions (w/ manual handle)

Table 2.

Unit: mm

Model	Handle	E	Stroke	B	φC	K screw	t	φg	φd	F	p ^{PC}	Y	N	Stay bolt
DAP560	With	640	50	910	380	380	4	110	120	265	-	-	-	φ20 x 4
			100	1010										
			150	1120										
	Without	-	50	880										
			100	980										
150	1090													
DAP1000	With	640	50	925	470	470	10	140	152	265	185	24	8	φ20 x 8
			100	1125										
			150	1205										
	Without	-	50	895										
			100	995										
150	1105													
DAP1500	With	665	50	960	570	570	10	140	152	260	185	24	8	φ20 x 12
			100	1060										
			150	1295										
	Without	-	50	940										
			100	1040										
150	1275													

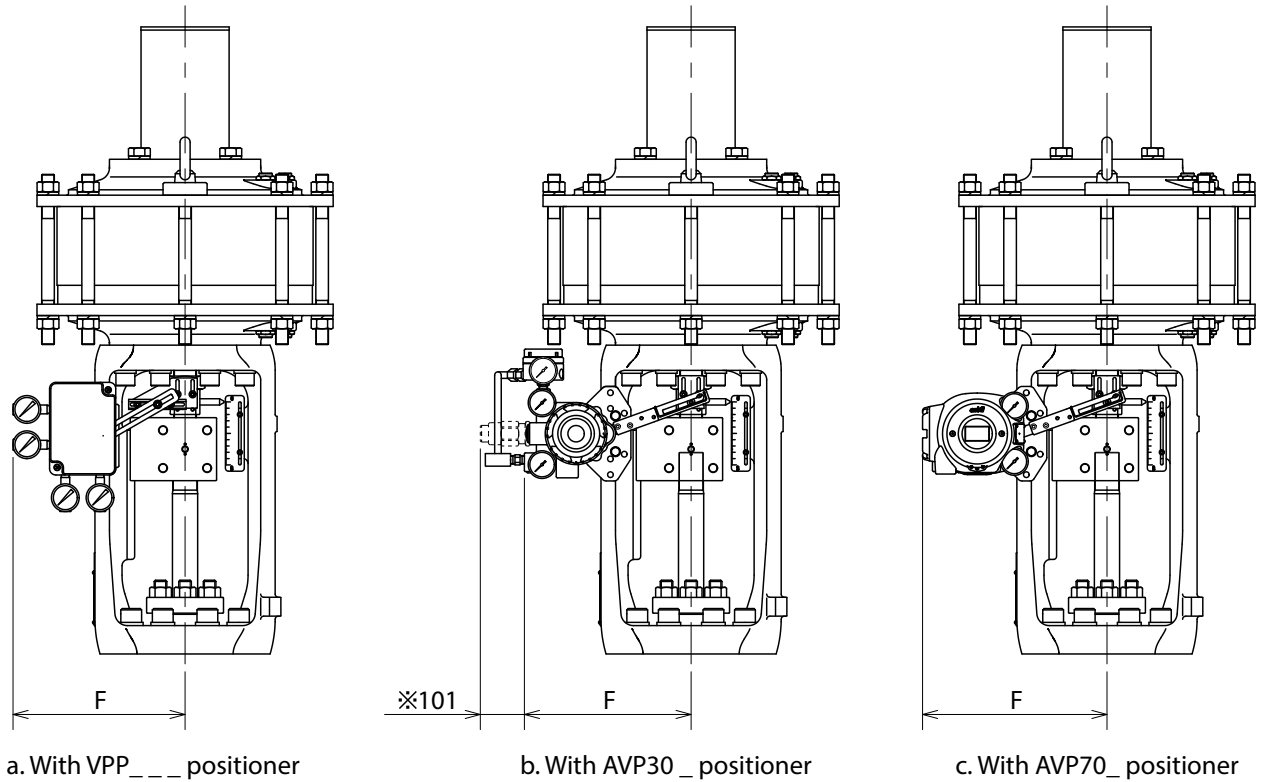


Figure 2. Dimensios of actuator with positioner

Table 3. Dimension F when a positioner is mounted

Unit: mm

Model No.	Manual handle	Stroke	VPP___	AVP30_	AVP70_
DAP560	With/without	50/100/150	275	265	293
DAP1000	With/without	50/100/150	275	265	293
DAP1500	With/without	50/100/150	265	301	329

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