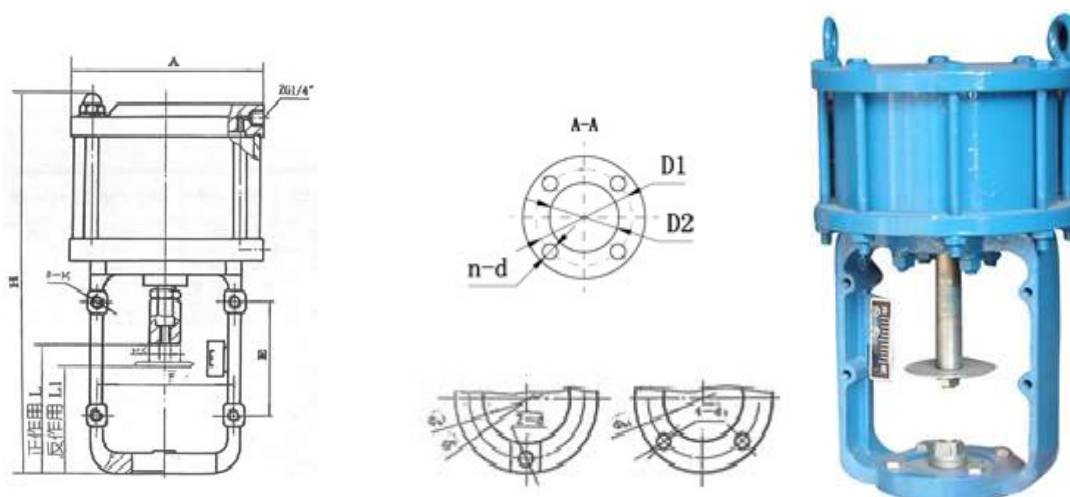


## Product overview

The PHS piston actuator is an adjustable zero proportion pneumatic piston type straight stroke actuator with spring return. The pneumatic piston actuator is characterized by large output force, simple structure, being reliable and light, quick movement velocity and good antiknock characteristic. The pneumatic piston actuator can be matched with straight in single and double seat, angle type, sleeve, diaphragm and fine and small straight stroke control valve and becomes the pneumatic piston type control valve after the locator is equipped. Different spring ranges are chosen to get the required allowable pressure differential. It's applicable to the two-position spring return piston actuator which is compatible with the stop valve. It's characterized by quick action, being reliable and light and small volume.



## Technical parameters

Model		PHS100	PHS125	PHS160	PHS200	PHS250	PHS320
Cylinder diameter mm		100	125	160	200	250	320
Travel mm		10	10/16	16/25	25/40	40/60	60
Spring range KPa		40-200; 80-240; 100-200; 200-350; 350-500					
Supply gas pressure MPa		0.4-0.6; ZS-P: The air-to-open type is 0.05 greater than the upper limit of the spring range, and the air-to-close type is subject to upper limit+ lower limit+0.05					
ZS-P push rod output N	350-500KPa	2674	4165	6860	10740	16800	27440
	200-350KPa	1528	2300	3920	6140	9600	15680
	100-200KPa	764	1190	1960	3070	4800	7840
	80-240Kpa	610	952	1568	2450	3840	6270
Equipped with side mounting hand-operated gear		HX10		HX16	HX20	HX25	HX32

Note: The calculation of thrusting force is subject to the starting spring force of reaction. The spring scope is subject to 350-500KPa grade, and the small spring scope is used in case that the air-to-close valve is equipped.

## Performance index

Item	Without locator	With locator
Intrinsic error %	±6	±1.5
Return difference %	3	1.5
Dead zone %	1.2	1
Starting/ending point deviation %	2.5	
Air tightness	Input into cylinder at 0.6mpa, pressure drop after the gas source is cut off ≤5KPa/5min	
Working life	Not less than 0.1 million times	

Note: When being combined with control valve, the valve positioner is equipped generally.

## Part material

Part name	Material	Part name	Material
Air cylinder	Finish draw aluminum alloy tube and hard anodic oxidation	Piston	LY12
Compression spring	60Si2MnA	Push rod	2Cr13
QY-shape sealing ring	TPU and EPDM	Holder	HT250

## Connection dimension

Model/size	PHS100	PHS125	PHS160	PHS200	PHS250	PHS320
A	125×125	148×148	185×185	232×232	283×283	283×283
H	250	290	325	440	590	640
	250	290	325	440	590	640
	200	245	272	352	431	510
L	90	97	110	150	170	295
L1	60	81	92	115	110	200
D1	/	80	80	105	122	130
D2	32	60	60	80	95	100
n-φd	/	2-Φ10	2-Φ10	4 -Φ12	4 -Φ14	4 -Φ18