

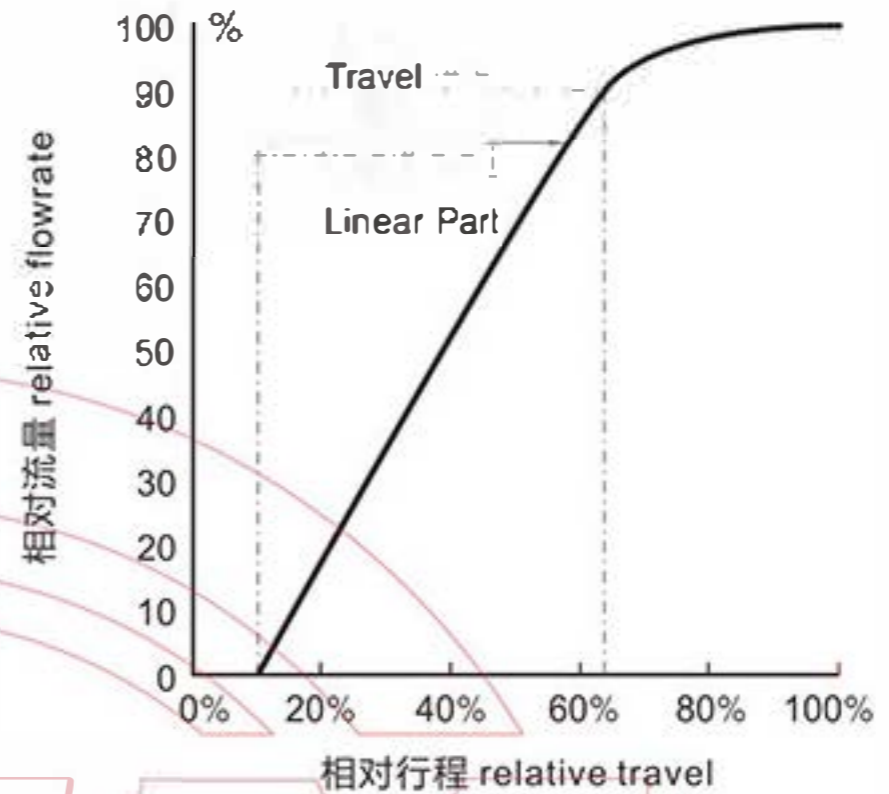
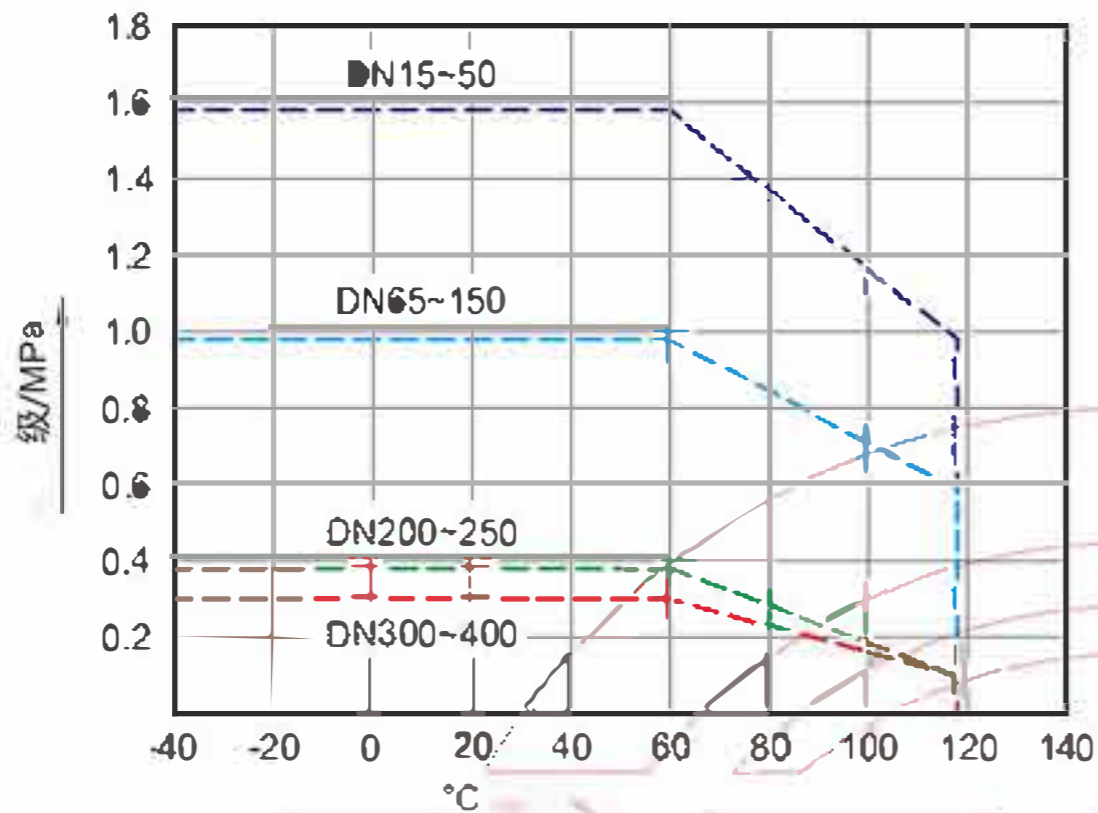
# Lined Pneumatic Diaphragm Valve

## Technical Specification

Nominal Diameter	20	25	32	40	50	65	80	100	125	150	200	250	300	
Rated Cv	9.1	19.8	26.8	45	59	83	148	269	362	505	1320	2000	3624	
Rated travel	14mm			22mm			30mm			50mm			60mm	
Actual pressure	Maximum 1.0 MPa (1.6 MPa customised)													
Nominal pressure	1.0MPa, 1.6MPa													
Working temperature	-29°C ~180°C													
Connection	HG/T 20592													
Cut off time	2-4 seconds at full open/cl													
Flow characteristic	Quick open													
	ZSA/B piston actuator													
Model	ZSA/B-22			ZS/B-23			ZSA/B-34			ZSA/B-45			ZSA/B-56	
Action mode	ZSA type actuator refer to "air to close" action; ZSB type actuator refer to "air to open" action													
Pressure supply	According to the scope of spring: 0.08-0.24, 0.34-0.50, 0.08-0.24 Mpa; air supply pressure: 0.5 MPa													
Air supply connection	Rc1/4													
Basic error	Without positioner: ±5%; With positioner: ±2%;													
Backlash	Without positioner: 3%; With positioner: 2%;													
Dead zone	Without positioner: 3%; With positioner: 0.8%;													
Travel deviation	±2.5%													
Leakage rate	No more than 10 <sup>5</sup> of rated CV													
Optional accessories	positioner, air set, solenoid valve, limit switch etc. (according to the order)													

## Temperature-Pressure Curve

## Classic Fixed Flow Characteristic Curve



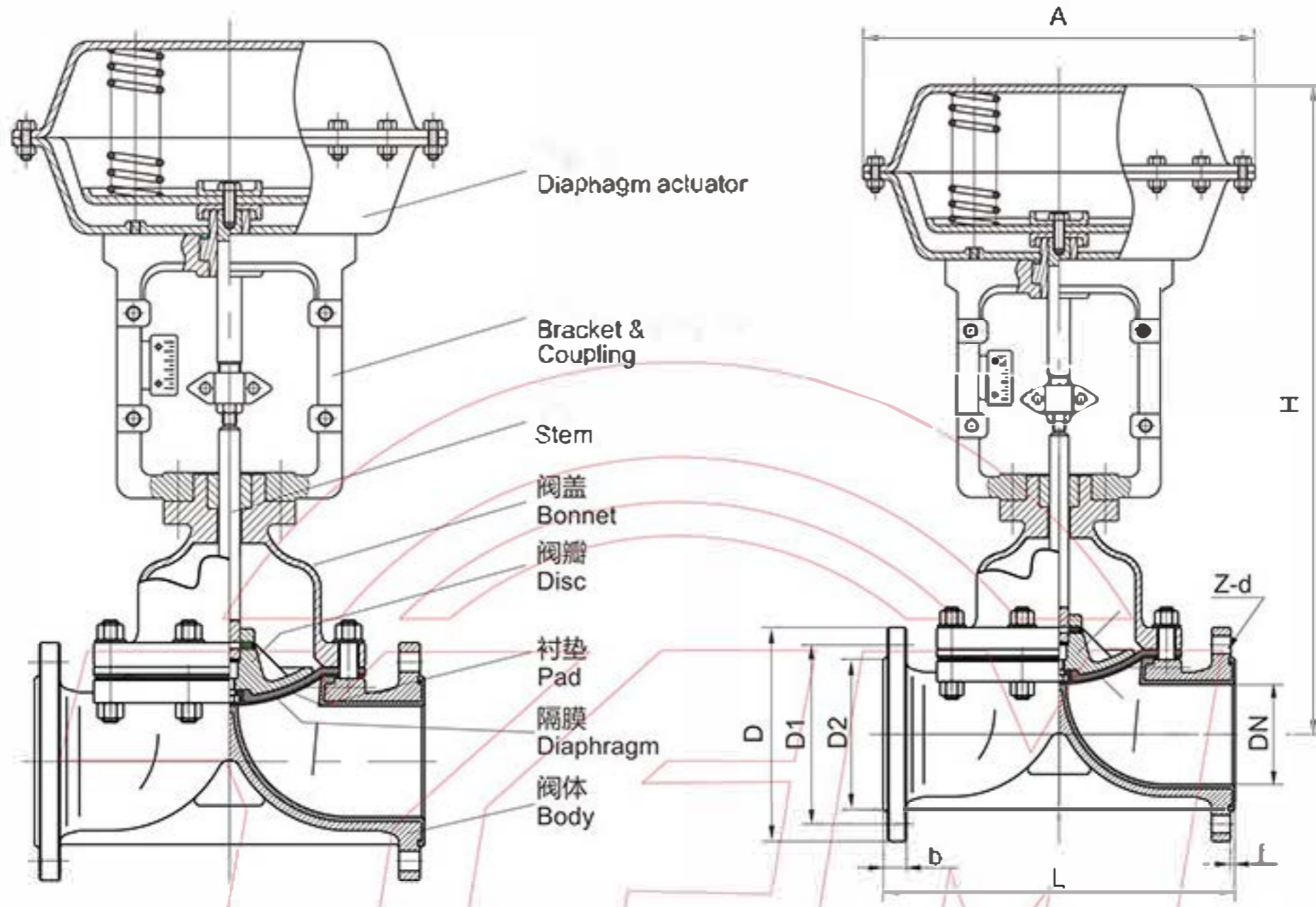
## Structure and working principle

- When the signal pressure input into diaphragm chamber (piston chamber), the pressure on the diaphragm (piston) generates the thrust, making the spring compressed. At the same time, the valve stem, disc, diaphragm connected to push rod will move accordingly, until the thrust and the reaction force of the spring is balanced. At this time the push rod is not moving, and keep in a certain position, thus to realize the adjusting function. On the other hand, the pistons thrust will open or close the valve, also realize quick on-off valve function.

## Installation and Maintenance

- The applicable temperature for lined diaphragm control valve is  $-29^{\circ}\text{C} \sim 70^{\circ}\text{C}$ . Since the pneumatic diaphragm and piston are rubber parts, they are easily hardening and brittle under low temperature, and aging accelerates under high temperature.
- This valve is better for vertical installation; if not allowed, consider adding the support bracket for slanting installation.
- After hand wheel actuator used, the telescopic pipe should be returned to top end, or will affect automatic control.
- On-off valve before installed to pipeline, should clean the impurities and dirt, to avoid the running parts stuck, or damage the important parts of seat and disc sealing face.
- When the on-off valve installed, the direction of medium flow should be same as shown on control valve.

# Lined Pneumatic Diaphragm Valve



YFM-G641PFA/F4/F46/GXPO

HG/T 20592 PN10

单位Unit:mm

DN	L	D	O2	D1	f	b	Z-d	螺纹 Thread	H	A
20	135	105	75	55	2	14	4-14	M12	410	250
25	145	115	85	65	2	14	4-14	M12	424	250
32	160	140	100	78	2	16	4-18	M16	430	250
40	180	150	110	85	3	16	4-18	M16	465	285
50	210	165	125	100	3	16	4-18	M16	475	285
65	250	185	145	120	3	18	4-18	M16	580	360
80	300	200	160	135	3	20	8-18	M16	603	360
100	350	220	180	155	3	20	8-18	M16	622	360
125	400	250	210	185	3	22	8-18	M16	759	470
150	460	285	240	210	3	24	8-22	M20	774	470
200	570	340	295	265	3	26	8-22	M20	814	470
250	680	395	350	320	3	30	12-22	M20	1112	580
300	790	445	400	368	4	30	12-22	M20	1174	580

Note: For more size, please consult our engineer



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