



Product overview

ZJHM pneumatic diaphragm sleeve regulating valve adopts sleeve guide, pressure balanced double sealing surface and single sealing surface structure. It is a force balanced regulating valve. The regulating valve is equipped with a multi-spring diaphragm actuator, which has the advantages of small structure and large output force. It is more suitable for use under the conditions of good dynamic stability, low noise, cavitation flash, high and low temperature, and high pressure difference fluid control.

Standard technical parameters

Valve body type: straight-through cast ball valve
 Valve size: DN20-200
 Rated pressure: PN16, PN40, PN63, PN100
 Connection form: flange (standard type) thread, welding (must be specified by the user)
 Flange standard: steel flange according to GB9113-2000, JB/T-94
 Sealing surface type: PN16 is convex surface PN40, 63, 100 are concave and convex surface
 Flange end distance: According to GB12221-89
 Material: ZG230-450
 ZG1Cr18Ni9Ti
 ZG1Cr18Ni12Mo2Ti
 Structural type: Standard type (-20℃~+200℃)
 Low temperature type (-60℃~-196℃)
 Heat dissipation type (-40℃~+450℃)
 Bellows sealed type

Gland type: Platen type
 Padding: V-type polytetrafluoroethylene packing, flexible graphite packing
 Gasket: Type, tooth type and flat type
 Material, F4/modified F4, stainless steel + graphite

Valve components

Structural type: pressure balance type
 Valve core: plunger type
 Sleeve: Metal seal
 Equal percentage characteristics (%C)
 Linear characteristics (LC)

Soft seal (spool material: reinforced polytetrafluoroethylene)
 Equal percentage characteristics (%C)
 Linear characteristics (LC)

Actuator
 Type: Multi-spring diaphragm actuator

ZH_B^A-22, ZH_B^A-23, ZH_B^A-45
 Valve action: direct action, reverse action

Diaphragm material: Nitrile rubber with reinforced polyester fabric
 Spring range: 20~100KPa, 40~200KPa, 80~240KPa
 Air supply pressure: 0.14~0.4MPa
 Signal interface: internal thread M16x1.5
 Ambient temperature: -30℃~+70℃

Valve action

Air-to-close FO (with positive-acting actuator)
 When the air source fails, the actuator spring opens the valve
 Air-to-open FC (with negative-acting actuator)
 When the air source fails, the actuator spring closes the valve

Accessories (configured upon request)

Positioner, air filter pressure reducing valve, hand wheel mechanism, Limit switch
 Switch, solenoid valve, valve position transmitter, relay, Position retaining valve, others

Performance

Rated Kv value: Refer to Table 1
 Flow characteristics: Linear, equal percentage
 Adjustable range: 50:1
 Seat leakage rate (for rated Kv value %):
 Metal seal: less than 0.5% (ANSI B16.104-197 Class II) or less than 0.01% (ANSI B16.104-1976 Class IV)

Soft seal less than 0.0001%
 (ANSI B16.104-1976 IV grade)

Return difference:

less than 1% of full stroke (with positioner)
 less than 3%~5% of full stroke (without positioner)
 Basic error:
 less than ±1% of full stroke (with positioner)
 less than ±5% of full stroke (without positioner)
 Dimensions: Refer to Table 2

Paint color: The pneumatic actuator and valve surface of the regulating valve should be painted, and stainless steel and steel valves do not need to be painted. The arrows and text on the valve body are painted red. User-specified colors are also acceptable.

Table 1 Kv value action time

Nominal diameter (mm)	Rated flow coefficient KV		Actuator model	Diaphragm effective surface area (cm ²)	Rated stroke (mm)
	Linear	Equal ratio			
20	6.9	6.3	ZH _B ^A -22	350	16
25	11	10			
32	17	16	ZH _B ^A -23	350	25
40	27	25			
50	44	40			
65	69	63	ZH _B ^A -34	560	40
80	110	100			
100	176	160			
125	275	250	ZH _B ^A -45	900	60
150	440	400			
200	690	630			

Table 2 Dimensions and weight

Nominal diameter (mm)	Unit:mm															
	L		A	H1		H2	H3		H4		H5		C	H6	weight(kg)	
	PN 16/40	PN 63/100		PN 16/40	PN 63/100		PN 16/40	PN 63/100	PN 16/40	PN 63/100	PN 16/40	PN 63/100			PN 16/40	PN 63/100
20	150	230	285	126	138	271	286	298	286	298	43	49	220	180	21	24
25	160	230	285	126	138	271	286	298	286	298	48	54	220	180	22	25
32	180	260	285	134	142	297	302	310	302	310	57	61	220	180	24	30
40	200	260	285	157	165	297	325	333	325	333	66	70	220	180	32	42
50	230	300	285	167	187	297	335	345	335	345	80	84	220	180	38	52
65	290	340	360	199	204	375	437	442	437	442	92	97	265	240	62	78
80	310	380	360	214	219	375	452	457	452	457	100	105	265	240	67	82
100	350	430	360	229	240	375	467	478	467	478	120	125	265	240	83	102
125	400	500	470	263	280	455	524	541	524	671	134	138	315	304	132	170
150	480	550	470	293	300	455	554	561	554	691	156	163	315	304	160	190
200	600	650	470	358	364	455	619	625	619	755	199	206	315	304	245	285

Note: 1. The weight in the table is the standard data without accessories. The side-mounted handwheel can also be installed.
 2. The end face distance of the flange can be manufactured according to the user's specified standards, such as ANSL, JIS, DIN and other standards.