



Product overview

The ZDLM electric sleeve control valve adopts sleeve guide, pressure balanced double sealing surface and single sealing surface structure. It is a force balanced control valve. Control valve is equipped with on-off or 4-20mADC or 1-5V DC signal for proportional action of small, firm and high precision actuator more suitable for dynamic stability, low noise, cavitation/flash, high and low temperature, high pressure difference fluid control conditions.

Standard technical parameters

Valve body type: straight-through single-seat cast ball valve
 Valve size: DN20-300
 Rated pressure: PN16, PN40, PN63, PN100
 Connection type: flange (standard), thread, welding (must be specified by the user)
 Flange standard: Steel flanges 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
 Gland type: Platen type
 Padding: V-type polytetrafluoroethylene packing, flexible graphite packing
 Gasket: Type, toothed and flat
 Material, F4/modified F4, stainless steel + graphite

Power supply: 220V AC, 50Hz
 Output signal: 4-20mADC (load resistance below 500Ω)
 Power consumption: Type A/50VA, Type B/150VA, Type C/220VA
 Protection level: IP55
 Outlet connection: Ordinary S type G1/2, Explosion-proof X type G3/4
 Ambient temperature: Without space heater -10°C~+60°C
 With space heater -35°C~+60°C
 Explosion-proof X type -10°C~+40°C
 Ambient humidity: Ordinary S type below 95%, explosion-proof X type 45-85%
 Explosion-proof grade: ExdIIBT4
 Overload protection: A and B types optional, C type required
 Manual device: with handle

Accessories (configured upon request)

Space heater, overload protection

Performance

Rated Kz value: Refer to Table 1
 Flow characteristics: Linear, equal percentage
 Adjustable range: 50:1
 Valve seat leakage rate (for rated Kv value %)
 Metal seal:
 less than 0.5% (ANSI B16.104-1976 Class II) and less than 0.1% (optional)
 Soft seal: less than 0.00001% (ANSI B16.104-1976 Class VI)
 Basic error: ±1%
 Hysteresis: ≤1%
 Dead zone: ≤1%
 Action time: refer to Table 1
 Dimensions: refer to Table 2
 Wiring terminal diagram: Refer to the instruction manual of the actuator.
 Paint color: The electric actuator and valve surface of the regulating valve should be painted. Stainless steel and copper valves do not need to be painted. The arrows and text on the valve body are painted red. User-specified colors are also acceptable.

Valve components

Structural form: pressure balance type
 Valve core: plunger type
 Sleeve: metal seal
 Equal percentage characteristics (%C)
 Linear characteristics (LC)
 Soft seal (valve core material: reinforced polytetrafluoroethylene)
 Equal percentage characteristics (%C)
 Linear characteristics (LC)
Actuator
 Type: Electric actuator 381LSA/XA-08, 381LSA/XA-20, 381LSB/XB-30, 381LSB/XB-50, 381LSC-65, 381LSC-99, 381LSC-160
 Valve action: Direct action, Reverse action
 Control action: Proportional control or ON-OFF control
 Input signal: 4-20mADC or 1-5VDC must be selected
 Adjust the position of the valve when the signal is "off" (hold, fully open, fully closed)

Table 1 Kv value action time

Nominal diameter (mm)	Valve seat diameter (mm)	Rated flow coefficient KV		Electric actuator model	Output thrust (N)	Rated stroke (mm)	Action time (s)
		Linear	Equal ratio				
20	20	6.9	6.3	381LSA-08/20	800/2000	16	3.8/7.6
25	25	11	10				
32	32	17	16				
40	40	27	25	381LSB-30/50	3000/5000	25	7.2/14.7
50	50	44	40				
65	65	69	63				
80	80	110	100	381LSB-50/SC-65	5000/6500	40	23.5/14.3
100	100	176	160				
125	125	275	250				
150	150	440	400	381LSC-99/160	10000/16000	60	30/60
200	200	690	630				

Table 2 Dimensions and weight

Nominal diameter (mm)	L						H1		H6		H2	H3	H4	H5		weight(kg)			
	PN	PN	A	B	D	R	PN	PN	PN	PN				PN	PN	PN	PN	PN	PN
	16/40	63/100					16/40	63/100	16/40	63/100						16/40	63/100	16/40	63/100
20	150	230	460	230	225	177	126	138	142	154	490	373	459	43	49	10	13		
25	160	230	460	230	225	177	126	138	142	154	490	373	459	48	54	12	16		
32	180	260	460	230	225	177	134	142	154	162	490	495	459	57	61	15	19		
40	200	260	460	230	225	177	157	165	177	185	490	495	459	66	70	17	26		
50	230	300	460	230	225	177	167	187	187	207	490	495	459	80	84	18	27		
65	290	340	530	230	255	177	199	204	226	231	540	700	520	92	97	34	43		
80	310	380	530	230	255	177	214	219	241	246	540	700	520	100	105	46	69		
100	350	430	530	230	255	177	229	240	256	267	540	700	520	120	125	54	85		
125	400	500	630	260	310	226	263	280	290	307	625	725	570	134	138	76	120		
150	480	550	630	260	310	226	293	300	320	327	625	725	570	156	163	79	125		
200	600	650	630	260	310	226	358	364	385	391	625	725	570	199	206	100	150		

Note:
 1. The weight in the table is for PSL actuators
 2. The valve body flange and flange end face distance can be manufactured according to the standards set by the user, such as ANSI, JIS, DIN, etc.