



Product overview

The ZDLP electric single-seat regulating valve adopts a top-guided structure, a compact valve body, an S-shaped fluid channel, small pressure drop loss, large flow volume, wide adjustable range, and high flow characteristic accuracy. The guide area of the valve core guide part is large, and it has the characteristics of strong anti-seismic performance. The valve seat closing performance meets the GBT4213-92 standard. The regulating valve is equipped with a small, sturdy, and high-precision actuator that receives ON-OFF or 4-20mADC or 1~5V DC signals for proportional action. It is more suitable for use in high temperature, low temperature and high pressure occasions that require high reliability and closing performance.

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

Valve components

Valve core: single seat plunger type valve core

Sleeve: Metal seal

Equal percentage characteristics (%C)

Linear characteristics (LC)

Soft seal (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, 381LSC-260

Valve action: direct action, reverse action

Control action: proportional control or ON-OFF control

Input signal: 4-20mADC or 1-5VDC must select the

position of the regulating valve when the input signal

is "off" (protection, full open, full close)

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 on request)

Space heater, overload protection

Performance

Rated Kv 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 0.01%

(ANSI B16.104-1976 Class IV)

less than 0.001% (optional)

Soft seal less than 0.00001%

(ANSI B16.104-1976 Grade VI)

Basic error: ±1%

Hysteresis: $\leq 1\%$

Dead zone: $\leq 1\%$

Action time: refer to Table 1

Dimensions: refer to Table 2

Product weight: 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.

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	5	0.2		381LSA-08	800	10	2.4
	7	0.5					
	8	0.8					
	10	1.8	1.6	381LSA-08/20	800/2000	16	3.8/7.6
	12	2.8	2.8				
	15	4.4	4				
	20	6.9	6.3				
25	25	11	10				
32	32	17	16	381LSB-30/50	3000/5000	25	7.2/14.7
40	40	27	25				
50	50	44	40				
65	65	69	63	381LSB-50/SC-65	5000/6500	40	23.5/14.3
80	80	110	100				
100	100	176	160				
125	125	275	250	381LSC-99/160	10000/16000	60	30/60
150	150	440	400				
200	200	690	630				
250	250	1000	900	381LSC-99/260	16000/26000	100	90
300	300	1600	1440				

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		H2		H3		H4		PN		PN		PN		PN		
	16/40	63/100	A	B	D	R	16/40	63/100	16/40	63/100	H2	H3	H4	16/40	63/100	16/40	63/100	16/40	63/100	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														
250	730	775	730	300	415	345	440	450	460	470	735	760	630	255	270	375	390														
300	850	900	730	300	415	345	550	565	550	560	735	760	630	320	340	475	495														

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.