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HOED

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Straight Stroke Regulating Valve Selection Manual

CANADA KINGSWAY FLOW CONTROL CO., LTD.






All valves produced by the company are ISO 9001 certified

Products are tested and inspected in accordance with specified test and inspection procedures

Provides the reliable guarantee for the high quality product

Company Profile

Canada Kingsway flow control Co., Ltd. is a company specialized in the design, development and sales of valves with all kinds of integrated control systems. It owns two series of brands "HOEVNDIY" and "HOED". Main products are high–performance electric butterfly valve, fluorine line butterfly valve, ball valve, regulating valve; All products are qualified by ISO and achieve ISO9001, ISO14001, SIL3, CE and other certificates. Our products widely used in environmental protection, HVAC, electricity, petroleum, chemical, metallurgy, electronics, medicine and other fields.

With many years of on–site application experience, our company have continuously developed and designed many new products with characteristics to meet the special requirements of current fluid treatment conditions. Our outstanding project management and technical expertise are reflected in providing perfect solutions for projects of different scale and different unites. We ensure that our analysize, selection, calculation and design which according to the initial working conditions and technical requirements can provide the best solution and timely delivery to meet your needs.

Our company currently have R&D, production and assembly center for control valve and subassembly system development in Vancouver, Canada. There are 3 after–sales office in Xiamen, Shanghai and Chengdu, meanwhile there is a subsidiary company in Beijing, China in charge of the Asia Pacific marketing and after–sales service. We are using advanced production equipment and technology, through 6 SIGMA excelsior management model and SAP management system to provide customer best production and service and offer our best solution.

Mission To be a great company providing innovative technological products and services for healthy living.

Vision Using technology innovation technology to serve industrial development, create value for customers, create opportunities for ourselves.

Values Moral, people–oriented, collective struggle, win–win cooperation.






Building an industrial valve solution to create valuable ecology.
No matter any kind of conditions you are facing, we are committed to providing you the most completely valve applications and solutions!

Technology & Services

Factory Capabilities

Canada Kingsway is committed to provide high quality, high reliability and high safety valve products. The leading international product conceptual design is applied; the advanced numerical control design tools such as Mastercam, Solidworks are adopted to standardize the production with strict quality control system and advanced testing process. After continuous to improve the design, our products are ensured to adapt to the market better and quickly.

Factory quality management and testing capabilities

Canada Kingsway has its own unique product quality management system and corresponding product quality testing equipment, which provides a reliable guarantee for high–quality products. The main testing equipment includes triple coordinate measuring instruments, metallographic analyzers, spectrum analyzers, magnetic particle flaw detectors, X–ray detection equipment, impact testing machines, universal testing machines, etc., which not only ensure the quality of products from production, processing, testing and shipment but also improve the performance of the product, speed up the delivery schedule of the product, increase product R&D speed and reduce the cost of the product.

CRM customer service system construction

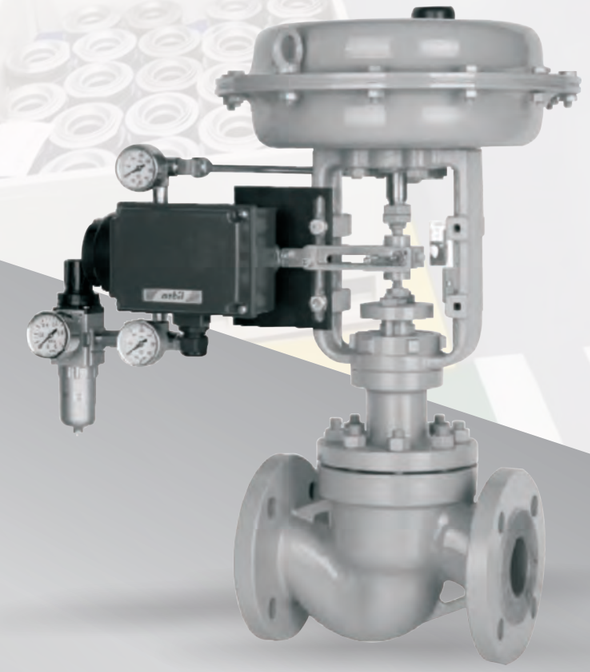
Pre–sales service: type selection guidance, technical confirmation, application condition analysis, maintenance consultation, etc. After–sales service: installation guidance, testing and commissioning, maintenance, spare parts sales, site training, etc. With the advanced CRM customer service system, we provide the total process of service from the beginning of design consulting to the aftersales of equipment commissioning and maintenance. This is also an important concept and principle we are committed to.

CONTENTS

Linear Stroke regulating valve

HQED

HDG100 Series Single Seat Regulating Valve



CANADA KINGSWAY FLOW CONTROL CO., LTD.

Overview

HDG100 series single seat regulating valve has two structures: HDG100 series top–guided type and HDG110 series sleeve–guided type. The valve body of this series has compact structure, low overall height and S streamline fluid path, with wide regulating range, high accuracy of flow characteristic curve, large guiding area of plugs and good oscillations resistance, which makes it possible to be suitable for a variety of severe working conditions;

This series of regulating valve has several types for upper bonnet, such as , bellows sealing type, steam jacket type and extended upper bonnet.

Technical data and features

Valve Body

Type:	Unbalanced plug plug
Nominal Diameter:	5 ~ 200 mm (1/2 "~ 8")
Plug Plug Type:	Plunger
Flow Characteristics:	Equal percentage, linear, switch
Nominal Pressure:	PN 1.6, 2.5, 4.0, 6.3, 10.0MPa
	ANSI Class 150, 300, 600;
	JIS 10K, 20K, 30K, 40K
Connection Type:	Flange (RF, FM concave, RTJ)
	Threaded
	Welding
	[Socket welding SW (DN≤50)
	Butt welding BW (DN≥65)]
Flange Standard:	ASME B16.5–2013
	DIN EN 1092–1–2008
	GB/T 9113–2010
	HG/T 20615–2019
	HG/T20592–2019
Face to Face Distance:	GB / T12221–2005
Body and Bonnet Material:	WCB WC6 LCB CF8 CF8M
	CF3 CF3M Hastelloy C
Trim Material:	0Cr18Ni9 (304); 0Cr17Ni12Mo2 (316)
	00Cr17Ni14Mo2 (316L)
	Above + R.TFE (Reinforeced PTFE)
	Above + Stellite (Hard faced)

HOED
HDG100 Series Single Seat Regulating Valve

Upper Bonnet Type:	HDG100A series standard type –30 ~ 200℃
	HDG100B series extended type –60 ~ 560℃
	HDG100C series low temperature type –196 ~ –45 ℃
	HDG100E series steam jacket insulation type
	HDG100D series bellows seal type
Structure:	HDG100 series top–guided single–seat regulating valve
	HDG110 Series Cage Guided Type
Packing:	PTFE V–packing
	Reinforced PTFE packing
	Expanded graphite packing
Others:	1.When the valve is a metal hard seal and the valve seat leakage rate is required to reach Grade V, please specified when ordering;
	2. If cavitation may occur in the valve, it is recommended to choose a cage regulating valve;
	3. If the valve may flash, it is recommended to choose a reduced–bore type, and the plug and seat are hard faced.

Actuator part

Item \ Type		Pneumatic diaphragm type	Pneumatic piston type	Full electronic	Electric	Fully electronic (temperature–regulated actuator)
Task		Regulating, On/Off	Regulating, On/Off	Regulating	Switch	Regulating
Spring range		20–100;40–200; 80–240KPa	–	–	–	–
Air source/power		0.14, 0.25, 0.4MPa	0.4~0.6MPa	220V · AC 50Hz 380V · AC 50Hz	220V · AC 50Hz 380V · AC 50Hz	220V · AC 50Hz
Connector		Rc1/4", Rc3/8"	Rc1/4",Rc1/2", Rc3/8"	Wiring: 2–G1/2 "	Wiring: 2–G1/2 "	M27 × 2 (Temperature sensor connector)
Connection type of action		Air open, air close	Air open, air close, double acting	Power on, power off	Power on, power off	Cooling control, heating control
Intrinsic error	General type	± 1.5% Fs (With positioner)		± 1.0% Fs	–	± 2.0% Fs
	Special type	± 4.0% Fs (With positioner)		± 2.5% Fs	–	–
Hysteresis error	General type	≤1.5% Fs (With positioner)		≤1.0% Fs	–	≤1.5% Fs
	Special type	≤3.0% Fs (With positioner)		≤2.0% Fs	–	–
Allowable ambient temperature		–10 ~ +70℃		–10 ~ +60℃		–10 ~ +50℃
Optional valve accessories		Electrical valve positioner, air filter regulator, solenoid valve, limit switch, lock–up valve, manual device		Overload unit	Inching switch for position detecting, potentiometer	–

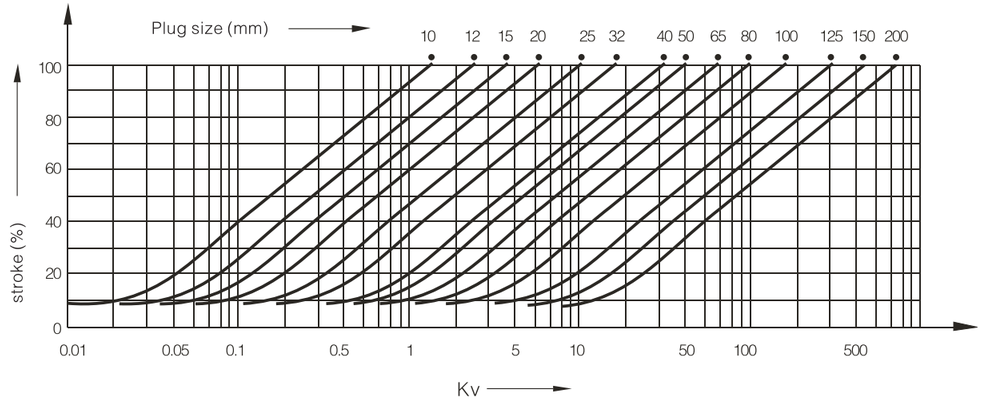
The main technical data

HDG100 series standard technical data

Nominal diameter		20	25	32	40	50	65	80	100	125	150	200
Rated Kv	Linear	6.9	11	17.6	27.5	44	69	110	176	275	440	690
	Equal percentage	6.3	10	16	25	40	63	100	160	250	400	630
Rated stroke L (mm)		16			25			40			60	
Diaphragm effective area (pneumatic valve) Ae(cm^2)		280			400			600			1000	
Inherent flow characteristics		Linear, equal percentage										
Inherent regulating ratio		50:1										
Allowable leakage		Hard seal: Grade IV (10^{-4} × Kv); Soft seal: Grade VI (see GB / T4213–2008)										

Temperature and pressure range of valve body and bonnet (see appendix)
Temperature and pressure range of valve trim and packing (see appendix)

Flow characteristics (percentage characteristics such as IEC standards)

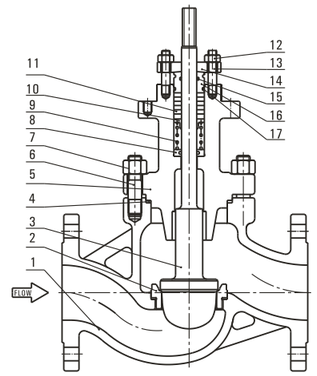


Percentage of opening of flow characteristics and corresponding flow (R = 50)

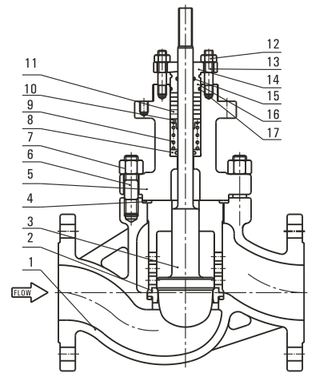
Percentage of opening (l/L)% \ Corresponding flow (Q/Qmax)%	0	10	20	30	40	50	60	70	80	90	100
Linear	2	11.8	21.6	31.4	41.2	51	60.8	70.6	80.4	90.2	100
Equal percentage	2	3	4.37	6.5	9.6	14.1	20.9	30.9	45.7	67.6	100

HDG100 series standard internal structure diagram

HDG100 series single seat regulating valve



HDG100 series top leading



HDG110 series sleeve oriented

1、 Body
2、 Seat (Cage)
3、 Plug Plug
4、 Washers
5、 Bonnet
6、 Body stud
7、 Hex nuts
8、 Spring underlay
9、 Packing spring
10、 Spring cushion
11、 Packing
12、 Hex nuts
13、 Retainer studs
14、 Packing flangeflange
15、 O–ring seal
16、 Packing glandgland
17、 O–ring seal

Maximum allowable differential pressure

Pneumatic diaphragm type actuator allowable differential pressure table

Air-closed (positive-acting) metal seal allowable differential pressure table **(Unit: MPa)**

Actuator	Spring range KPa	Air source pressure MPa	Seat diamete DN										
			20	25	32	40	50	65	80	100	125	150	200
PZMA–4	20–100	0.15	2.55	1.63									
	40–200	0.25	3.34	2.14									
	80–240	0.40	6.52	4.17									
PZMA–5	20–100	0.15			1.31	0.84	0.54						
	40–200	0.25			1.72	1.10	0.71						
	80–240	0.40			3.36	2.15	1.37						
PZMA–6	20–100	0.15						0.49	0.32	0.21			
	40–200	0.25						0.65	0.43	0.27			
	80–240	0.40						1.26	0.83	0.53			
PZMA–7	20–100	0.15									0.23	0.16	0.09
	40–200	0.25									0.30	0.21	0.12
	80–240	0.40									0.58	0.40	0.22

Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows.

Pneumatic diaphragm type actuator allowable differential pressure table

Air-open (negative action) metal seal allowable differential pressure table **(Unit: MPa)**

Actuator	Spring range KPa	Air source pressure MPa	Seat diamete DN										
			20	25	32	40	50	65	80	100	125	150	200
PZMB–4	20–100	0.15	0.95	0.51									
	40–200	0.25	2.55	1.63									
	80–240	0.40	5.37	3.57									
PZMB–5	20–100	0.15			0.49	0.32	0.20						
	40–200	0.25			1.31	0.84	0.54						
	80–240	0.40			2.95	1.89	1.21						
PZMB–6	20–100	0.15						0.18	0.12	0.08			
	40–200	0.25						0.49	0.32	0.21			
	80–240	0.40						1.11	0.73	0.47			
PZMB–7	20–100	0.15									0.09	0.06	0.03
	40–200	0.25									0.23	0.16	0.09
	80–240	0.40									0.52	0.36	0.20

Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows.

Fully electronic and electric actuator allowable differential pressure table

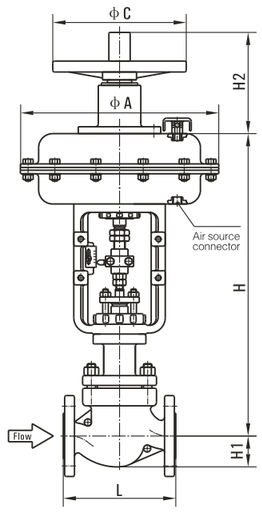
Power on / off metal seal allowable differential pressure table **(Unit: MPa)**

Actuator	Power V.AC	Seat diamete DN										
		20	25	32	40	50	65	80	100	125	150	200
361LSA–20 341LSA–20	220	5.09	3.26	1.99	1.27							
361LSB–30 341LSB–30	220			2.98	1.91	1.22						
361LSB–50 341LSB–50	220					2.04	1.21	0.79				
361LSC–65 341LSC–65	220						1.57	1.04	0.51	0.42	0.29	0.16
361LSC–99 341LSC–99	220								0.66	0.65	0.45	0.25
361LSC–160 341LSC–160	220									0.95	0.72	0.41

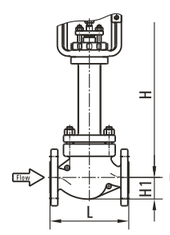
Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows.

HDG100 series single seat regulating valve dimensions and weight

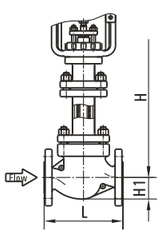
HDG100A series, HDG100B series, HDG100D series single seat regulating valve dimensions and weight



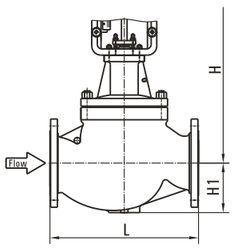
HDG100A series standard type



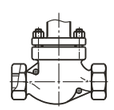
HDG100B series extension type



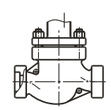
HDG100D series bellows seal type



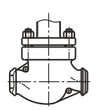
DN⩾125 diameter valve outline drawing



Threaded connection



Socket welding connection



Butt welding connection

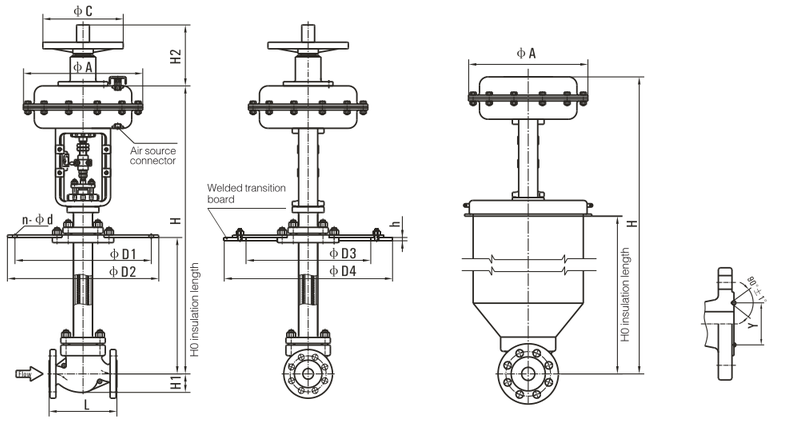
These three connection sizes are available upon request

Standard, extended, bellows sealed dimensions **(Unit: mm)**

DN	L		H			H1	A	C	H2	Weight (kg)	
	PN16,40	PN63,100	Standard type	Extended type	Bellows type					PN16	PN63
20	150	206	430	530	530	42	282	220	180	21	24
25	160	210	430	530	530	48	282	220	180	22	25
32	180	220	450	600	600	56	308	220	180	24	30
40	200	251	450	600	600	64	308	220	180	32	42
50	230	286	455	605	605	76	308	220	180	38	52
65	290	311	600	750	750	85	394	270	240	62	78
80	310	337	600	750	750	100	394	270	240	67	82
100	350	394	618	768	768	110	394	270	240	82	102
125	400	460	728	878	878	126	498	320	310	132	170
150	480	508	802	952	952	160	498	320	310	160	190
200	600	610	836	986	986	202	498	320	310	245	285

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. PN16, PN40 structure length standard is DIN 3202. PN63, PN100 structure length standard is ISA 75.03;
3. We can customize the production of valve products suitable for various severe conditions according to the requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
4. The handwheel is a non–standard valve accessory, which can be selected according to customer requirements.

HDG100C series low temperature type single seat regulating valve



Connection plate mounting type

Floating sleeve cage installation type (DN20–100)

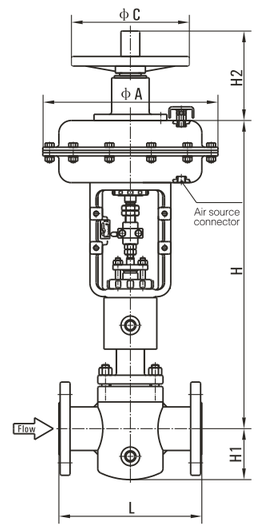
All metal O-ring groove size

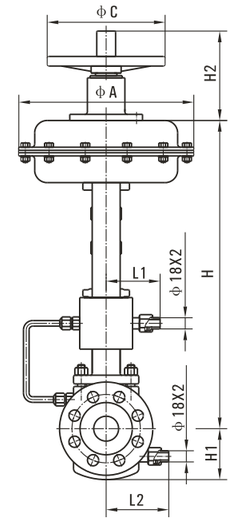
Low-temperature type dimensions **(Unit: mm)**

DN	L		H0						D1	D2	D3	D4	n-d	h	H1	A	C	H2	Y	Weight (kg)	
	PN16 PN40	PN63 PN100	500	600	700	800	900	1000													
	H																			PN16	PN63
20	150	206	930	1030	1130	1230	1330	1430	260	290	230	310	8–14	15	42	282	220	180	45	40	46
25	160	210	930	1030	1130	1230	1330	1430	260	290	230	310	8–14	15	48	282	220	180	45	48	55
32	180	220	950	1050	1150	1250	1350	1450	285	315	250	335	8–14	15	56	308	220	180	60	52	60
40	200	251	950	1050	1150	1250	1350	1450	305	335	270	355	8–16	18	64	308	220	180	65	60	69
50	230	286	955	1055	1155	1255	1355	1455	340	370	305	390	8–16	18	76	308	220	180	75	68	78
65	290	311	1100	1200	1300	1400	1500	1600	460	490	430	520	10–16	18	85	394	270	240	90	90	104
80	310	337	1100	1200	1300	1400	1500	1600	525	555	490	585	10–16	20	100	394	270	240	104	105	121
100	350	394	1118	1218	1318	1418	1518	1618	590	630	556	600	12–18	20	110	394	270	240	135	143	164
125	400	460	1228	1328	1428	1528	1628	1728	700	740	665	770	14–18	20	126	498	320	310	165	210	242
150	480	508	1302	1402	1502	1602	1702	1802	700	740	665	770	16–18	20	160	498	320	310	195	282	324
200	600	610	1336	1436	1536	1636	1736	1836	805	845	765	890	18–18	20	202	498	320	310	245	315	362

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. PN16, PN40 structure length standard is DIN 3202. PN63, PN100 structure length standard is ISA 75.03;
3. We can customize the production of valve products suitable for various severe conditions according to the requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
4. The insulation length H0 can be customized according to the medium temperature and the requirements. The flange of the low temperature regulating valve can be sealed with a metal O-ring (LF2), and an aluminum shoulder ring (LF4) can be used according to customer requirements.
5. The hand wheel mechanism is a non-standard valve accessory, which can be selected according to customer requirements;
6. The welding transition plate is a non-standard valve accessory, which can be selected according to customer requirements.

HDG100E Series Jacketed Insulation Single Seat regulating valve dimensions and weight



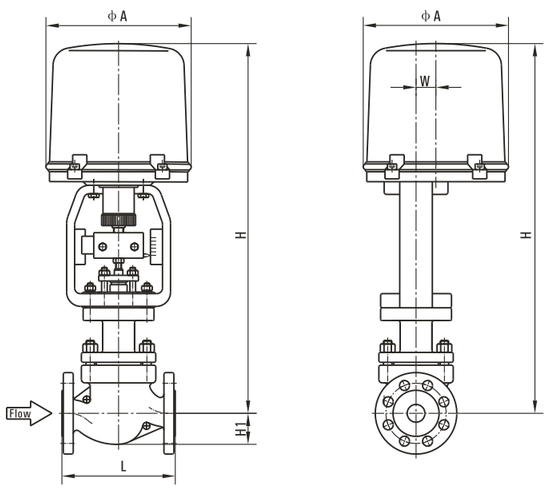


Jacket insulation type dimensions **(Unit: mm)**

DN	Flange specifications	L	H	H1	A	C	H2	L1	L2	Weight (kg)
20	40	230	455	75	282	220	180	101	126	26
25	40	230	455	81	282	220	180	101	126	27
32	50	260	475	89	308	220	180	108	126	35
40	65	260	475	95	308	220	180	108	130	44
50	80	300	480	110	308	220	180	108	141	56
65	100	340	625	120	394	270	240	123	156	84
80	125	380	625	133	394	270	240	123	170	88
100	150	430	643	146	394	270	240	123	180	109
125	200	500	753	160	498	320	310	140	200	185
150	250	550	827	180	498	320	310	140	220	202
200	300	650	861	210	498	320	310	140	265	305

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. The structure length standard is DIN 3202;
3. We can customize the production of valve products suitable for various severe conditions according to the requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
4. The handwheel mechanism is a non-standard valve accessory, which can be selected according to customer requirements.

HDG100 series electric single seat regulating valve dimensions and weight

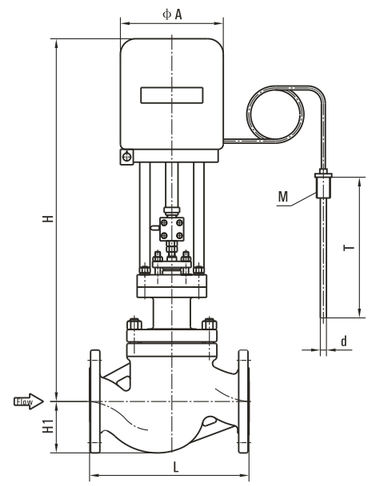


Dimensions of electric regulating valve **(Unit: mm)**

DN	L	H	H1	A	W	Actuator model	Weight (kg)
20	150	518	42	225	28	361LSA–20	21
25	160	518	48	225	28	361LSA–20	22
32	180	695	56	255	28	361LSB–30	24
40	200	695	64	255	45	361LSB–30	32
50	230	700	76	255	45	361LSB–30	38
65	290	986	85	310	45	361LSB–50 361LSC–65	62
80	310	986	100	310	60	361LSB–50 361LSC–65	67
100	350	1004	110	310	60	361LSB–50 361LSC–65	82
125	400	1114	126	310	60	361LSC–65 361LSC–99	132
150	480	1188	160	310	60	361LSC–65 361LSC–99	160
200	600	1222	202	310	60	361LSC–65 361LSC–99	245

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. The structure length standard is DIN 3202;
3. We can customize the production of valve products suitable for various severe conditions according to the requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
4. Various brands of electric (intelligent) actuators can be selected according to customer requirements.

HDG100 series electric temperature regulating valve dimensions and weight



Dimensions of electric temperature regulating valve **(Unit: mm)**

DN	L	H	H1	A	T	D	M	Actuator model	Weight (kg)
20	150	548	42	179	350	Φ6	M27x2	WK361LSA–20	21
25	160	548	48	179	350	Φ6	M27x2	WK361LSA–20	22
32	180	725	56	200	350	Φ6	M27x2	WK361LSB–30	24
40	200	725	64	200	350	Φ6	M27x2	WK361LSB–30	32
50	230	730	76	200	350	Φ6	M27x2	WK361LSB–30	38
65	290	1015	85	310	350	Φ6	M27x2	WK361LSB–50 WK361LSB–65	62
80	310	1015	100	310	350	Φ6	M27x2	WK361LSB–50 WK361LSB–65	67
100	350	1035	110	310	350	Φ6	M27x2	WK361LSB–50 WK361LSB–65	82
125	400	1035	126	310	350	Φ6	M27x2	WK361LSB–65 WK361LSC–99	132
150	480	1188	160	310	350	Φ6	M27x2	WK361LSB–65 WK361LSC–99	160
200	600	1222	202	310	350	Φ6	M27x2	WK361LSB–65 WK361LSC–99	245

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. The structure length standard is DIN 3202;
3. We can customize the production of valve products suitable for various severe conditions according to the requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
4. Various brands of electric (intelligent) actuators and temperature sensors can be selected according to customer requirements.

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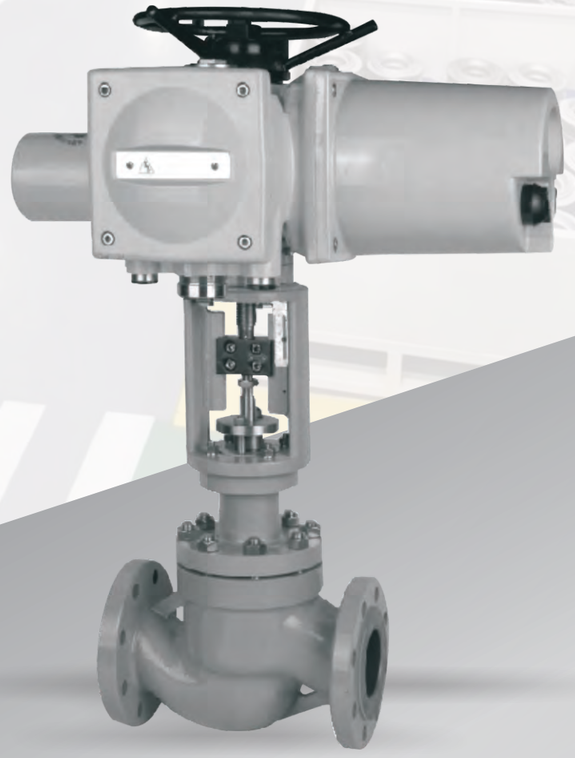
HDG300 Series Cage Regulating Valve



CANADA KINGSWAY FLOW CONTROL CO., LTD.

Overview

HDG300 series cage two–seat regulating valve (referred to as cage regulating valve) is a pressure–balanced regulating valve. The valve body has a compact structure and low overall height, and the fluid path is S streamlined. It has the advantages of small pressure drop loss, large flow, wide adjustable range, high accuracy of flow characteristic curve, good dynamic stability, low noise and small cavitation corrosion.

Because the valve plug adopts a fluid pressure balance type structure, stable operation can be achieved with a small operating force. The throttle unit of the HDG300 series simple two–seat regulating valve has two types, which are HDG300 series with wide opening and HDG300 series with small holes (low noise). The latter has the function of reducing noise and reducing resonance, which can be for special Low noise applications.

This series of regulating valve can be easily made into special structures such as bellows sealing type, steam jacket type and extended upper bonnet.

Technical data and features

Valve Body

Type:	Fluid pressure balanced plug plug
Nominal Diameter:	20 ~ 400 mm (3/4" ~ 16")
Plug Plug Type:	Double sealing face balance type
Flow Characteristics:	Equal percentage, linear, switch
Nominal Pressure:	PN 1.6, 2.5, 4.0, 6.3, 10.0MPa
	ANSI Class 150, 300, 600
	JIS 10K, 20K, 30K, 40K
Connection Type:	Flange (RF, FM concave, RTJ)
	Threaded
	Welding [Socket welding SW (DN≤50)
	Butt welding BW (DN≥65)]
Flange Standard:	ASME B16.5–2013
	DIN EN 1092–1–2008
	GB/T 9113–2010
	HG/T 20615–2019
	HG/T20592–2019
Face To Face	Distance: GB / T12221–2005
Body And Bonnet Material:	WCB WC6 LCB CF8 CF8M
	CF3 CF3M Hastelloy C

Trim Material:	0Cr18Ni9 (304); 0Cr17Ni12Mo2 (316) 00Cr17Ni14Mo2 (316L) Above + R.TFE (Reinforeced PTFE) Above + Stellite (hard faced)
Upper Bonnet Type:	HDG300A series standard type –30 ~ 200℃ HDG300B series extended type –60 ~ 560℃ HDG300C series low temperature type –196 ~ –45℃ HDG300D series bellows seal type
Structure:	HDG300 series cage regulating valve HDG300 series low noise type simple double seat regulating valve
Packing:	PTFE V–packing Reinforced PTFE packing Expanded graphite packing
Others:	1. When the valve is a metal hard seal and the valve seat leakage rate is required to reach level IV, please specify in the contract; 2. If cavitation may occur in the valve, it is recommended to use a multi–stage pressure drop cage regulating valve; 3. If the valve may flash, it is recommended to use a reduced–bore, type and the cage and valve seat are hard faced.

Actuator part

Item \ Type		Pneumatic diaphragm type	Pneumatic piston type	Full electronic	Electric
Task		Regulating, On/Off	Regulating, On/Off	Regulating	Switch
Spring range		20–100；40–200；80–240KPa	–	–	–
Air source/power		0.14, 0.25, 0.4MPa	0.4~0.6MPa	220V · AC 50Hz 380V · AC 50Hz	220V · AC 50Hz 380V · AC 50Hz
Connector		Rc1/4", Rc3/8"	Rc1/4",Rc1/2", Rc3/8"	Wiring: 2–G1/2 "	Wiring: 2–G1/2 "
Connection type of action		Air open, air close	Air open, air close, double acting	Power on, power off	Power on, power off
Intrinsic error	General type	± 1.5% Fs (With positioner)		± 1.0% Fs	–
	Special type	± 4.0% Fs (With positioner)		± 2.5% Fs	–
Hysteresis error	General type	⩽1.5% Fs (With positioner)		⩽1.0% Fs	–
	Special type	⩽3.0% Fs (With positioner)		⩽2.0% Fs	–
Allowable ambient temperature		–10 ~ +70℃		–10 ~ +60℃	
Optional valve accessories		Electrical valve positioner, air filter regulator, solenoid valve, limit switch, lock–up valve, manual device		Overload unit	Inching switch for position detecting, potentiometer

HOED
HDG300 Series Cage Regulating Valve

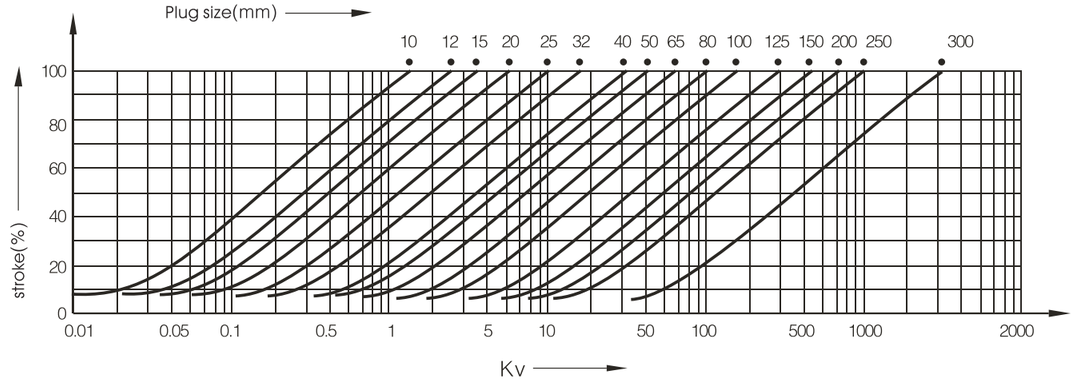
The main technical data

HDG300 series standard technical data

Nominal diameter		20	25	32	40	50	65	80	100	125	150	200	250	300
Rated Kv	Linear	6.9	11	17.6	27.5	44	69	110	176	275	440	690	1100	1760
	Equal percentage	6.3	10	16	25	40	63	100	160	250	400	630	1000	1600
Rated stroke L (mm)		16		25			40			60			100	
Diaphragm effective area (pneumatic valve) Ae(cm^2)		280		400			600			1000			1600	
Inherent flow characteristics		Linear, equal percentage												
Inherent regulating ratio		50:1												
Allowable leakage		Hard seal: Grade IV (10^{-4} × Kv); Soft seal: Grade VI (see GB / T4213–2008)												

Temperature and pressure range of valve body and bonnet (see appendix)
Temperature and pressure range of valve trim and packing (see appendix)

Flow characteristics (percentage characteristics such as IEC standards)



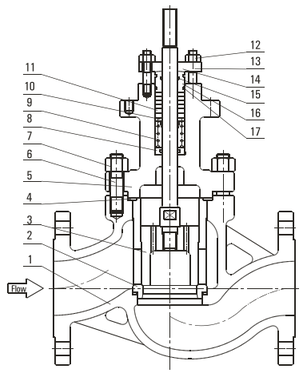
Valve inherent flow characteristic curve

Percentage of opening of flow characteristics and corresponding flow (R = 50)

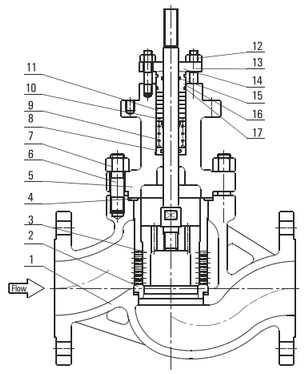
Percentage of opening (l/L)% \ Corresponding flow (Q/Qmax)%	0	10	20	30	40	50	60	70	80	90	100
Linear	2	11.8	21.6	31.4	41.2	51	60.8	70.6	80.4	90.2	100
Equal percentage	2	3	4.37	6.5	9.6	14.1	20.9	30.9	45.7	67.6	100

HDG300 series standard internal structure diagram

HDG300 series cage regulating valve



HDG300 series large window type



HDG300 series small hole (low noise) type

1、Body
2、Valve cage (porous sleeve)
3、Plug
4、Washers
5、Bonnet
6、Body stud
7、Hex nuts
8、Spring underlay
9、Packing spring
10、Spring cushion
11、Packing
12、Hex nuts
13、Retainer studs
14、Packing flange
15、O–ring seal
16、Packing gland
17、O–ring seal

Maximum allowable differential pressure

Pneumatic diaphragm type actuator allowable differential pressure table

Air close (positive-acting) metal seal allowable differential pressure table **(Unit: MPa)**

Actuator	Spring range KPa	Air source pressure MPa	Seat diamete DN													
			20	25	32	40	50	65	80	100	125	150	200	250	300	
PZMA–4	20–100	0.14	3.81	3.18												
	40–200	0.25	5.41	4.50												
	80–240	0.40	10.0	9.81												
PZMA–5	20–100	0.14			3.40	2.80	2.29									
	40–200	0.25			4.82	3.96	3.24									
	80–240	0.40			10.0	8.63	7.06									
PZMA–6	20–100	0.14						2.78	2.29	1.85						
	40–200	0.25						3.94	3.24	2.62						
	80–240	0.40						8.58	7.06	5.72						
PZMA–7	20–100	0.14									2.58	2.16	1.63			
	40–200	0.25									3.66	3.07	2.32			
	80–240	0.40									7.97	6.68	5.05			
PZMA–8	20–100	0.14												2.42	2.02	
	40–200	0.25												3.02	2.52	
	80–240	0.40												6.04	5.05	

Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows.

Pneumatic diaphragm type actuator allowable differential pressure table

Air-open (negative action) metal seal allowable differential pressure table **(Unit: MPa)**

Actuator	Spring range KPa	Air source pressure MPa	Seat diamete DN													
			20	25	32	40	50	65	80	100	125	150	200	250	300	
PZMB–4	20–100	0.14	1.27	1.06												
	40–200	0.25	3.81	3.18												
	80–240	0.28	10.0	8.48												
PZMB–5	20–100	0.14			1.13	0.93	0.76									
	40–200	0.25			3.40	2.80	2.29									
	80–240	0.28			9.08	7.46	6.11									
PZMB–6	20–100	0.14						0.92	0.76	0.61						
	40–200	0.25						2.78	2.29	1.85						
	80–240	0.28						7.40	6.11	4.94						
PZMB–7	20–100	0.14									0.86	0.72	0.54			
	40–200	0.25									2.58	2.16	1.63			
	80–240	0.28									6.89	5.78	4.37			
PZMB–8	20–100	0.14												2.42	2.02	
	40–200	0.25												3.02	2.52	
	80–240	0.28												6.04	5.05	

Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows.

Fully electronic and electric actuator allowable differential pressure table

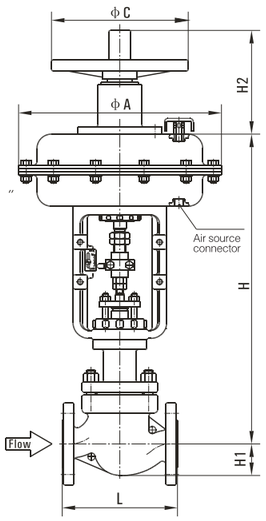
Power on / off metal seal allowable differential pressure table **(Unit: MPa)**

Actuator	Power V.AC	Seat diamete DN												
		20	25	32	40	50	65	80	100	125	150	200	250	300
361LSA–20 341LSA–20	220	7.38	6.07	4.85	3.95									
361LSB–30 341LSB–30	220			7.28	5.93	4.81								
361LSB–50 341LSB–50	220					8.01	5.24	5.12	4.12					
361LSC–65 341LSC–65	220						8.12	6.65	5.36	4.31	3.61	2.72		
361LSC–99 341LSC–99	220									6.63	5.55	4.18	3.36	2.80
361LSC–160 341LSC–160	220									10.0	8.88	6.69	5.37	4.48

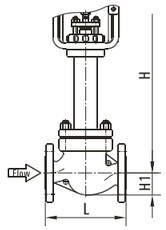
Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows.

HDG300 series socket double seat regulating valve dimensions and weight

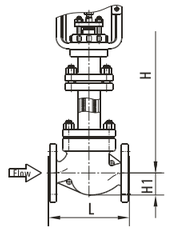
HDG300A series, HDG300B series, HDG300D series cage double seat regulating valve



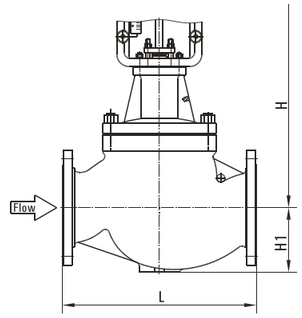
HDG300A series standard type



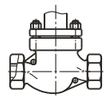
HDG300B series extension type



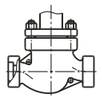
HDG300D series bellows seal type



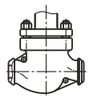
DN≥125 diameter valve outline drawing



Threaded connection



Socket welding connection



Butt welding connection

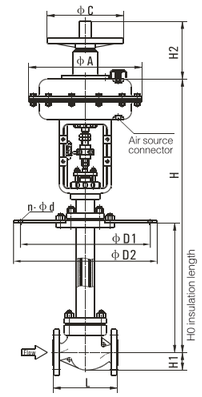
These three connection sizes are available upon request

Standard, extended, bellows sealed dimensions **(Unit: mm)**

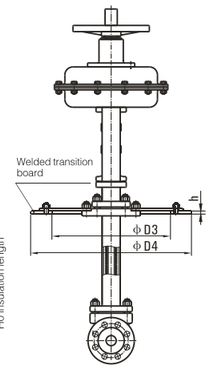
DN	L		H			H1	A	C	H2	Weight (kg)	
	PN16,40	PN63,100	Standard type	Extended type	Bellows type					PN16	PN63
20	150	206	430	530	530	42	282	220	180	21	24
25	160	210	430	530	530	48	282	220	180	22	25
32	180	220	450	600	600	56	308	220	180	24	30
40	200	251	450	600	600	64	308	220	180	32	42
50	230	286	455	605	605	76	308	220	180	38	52
65	290	311	600	750	750	85	394	270	240	62	78
80	310	337	600	750	750	100	394	270	240	67	82
100	350	394	618	768	768	110	394	270	240	82	102
125	400	460	728	878	878	126	498	320	310	132	170
150	480	508	802	952	952	160	498	320	310	160	190
200	600	610	836	986	986	202	498	320	310	245	285
250	730	752	1005	1155	1155	270	618	320	310	345	398
300	850	819	1085	1335	1335	290	618	320	310	465	505

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. PN16, PN40 structure length standard is DIN 3202. PN63, PN100 structure length standard is ISA 75.03;
3. We can customize the production of valve products suitable for various severe conditions according to the requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
4. The handwheel is a non–standard valve accessory, which can be selected according to customer requirements.

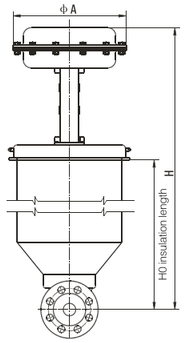
HDG300C series low temperature cage regulating valve dimensions and weight

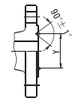


Connection plate mounting type



Floating sleeve cage installation type (DN20–100)





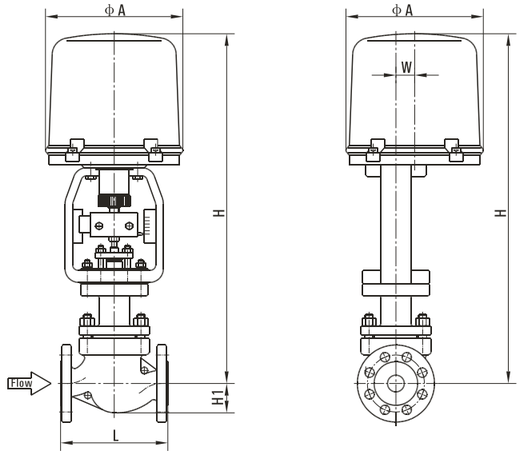
All metal O–ring groove size

Low–temperature type dimensions **(Unit: mm)**

DN	L		H0						D1	D2	D3	D4	n–d	h	H1	A	C	H2	Y	Weight (kg)	
	PN16 PN40	PN63 PN100	500	600	700	800	900	1000													
	H																			PN16	PN63
20	150	206	930	1030	1130	1230	1330	1430	260	290	230	310	8–14	15	42	282	220	180	45	40	46
25	160	210	930	1030	1130	1230	1330	1430	260	290	230	310	8–14	15	48	282	220	180	45	48	55
32	180	220	950	1050	1150	1250	1350	1450	285	315	250	335	8–14	15	56	308	220	180	60	52	60
40	200	251	950	1050	1150	1250	1350	1450	305	335	270	355	8–16	18	64	308	220	180	65	60	69
50	230	286	955	1055	1155	1255	1355	1455	340	370	305	390	8–16	18	76	308	220	180	75	68	78
65	290	311	1100	1200	1300	1400	1500	1600	460	490	430	520	10–16	18	85	394	270	240	90	90	104
80	310	337	1100	1200	1300	1400	1500	1600	525	555	490	585	10–16	20	100	394	270	240	104	105	121
100	350	394	1118	1218	1318	1418	1518	1618	590	630	556	600	12–18	20	110	394	270	240	135	143	164
125	400	460	1228	1328	1428	1528	1628	1728	700	740	665	770	14–18	20	126	498	320	310	165	210	242
150	480	508	1302	1402	1502	1602	1702	1802	700	740	665	770	16–18	20	160	498	320	310	195	282	324
200	600	610	1336	1436	1536	1636	1736	1836	805	845	765	890	18–18	20	202	498	320	310	245	315	362

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. PN16, PN40 structure length standard is DIN 3202, PN63, PN100 structure length standard is ISA 75.03;
3. We can customize the production of valve products suitable for various severe conditions according to customer requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
4. The insulation length H0 can be customized according to the medium temperature and customer requirements. The flange of the low temperature regulating valve can be sealed with a metal O–ring (LF2), and an aluminum shoulder ring (LF4) can be used according to customer requirements.
5. The hand wheel mechanism is a non–standard valve accessory, which can be selected according to customer requirements;
6. The welding transition plate is a non–standard valve accessory, which can be selected according to customer requirements.

HDG300 series electric cage regulating valve dimensions and weight



Electric cage single seat regulating valve

(Unit: mm)

DN	L	H	H1	A	W	Actuator model	Weight (kg)
20	150	518	42	225	28	361LSA–20	21
25	160	518	48	225	28	361LSA–20	22
32	180	695	56	255	28	361LSB–30	24
40	200	695	64	255	45	361LSB–30	32
50	230	700	76	255	45	361LSB–30	38
65	290	986	85	310	45	361LSB–50 361LSC–65	62
80	310	986	100	310	60	361LSB–50 361LSC–65	67
100	350	1004	110	310	60	361LSB–50 361LSC–65	82
125	400	1114	126	310	60	361LSC–65 361LSC–99	132
150	480	1188	160	310	60	361LSC–65 361LSC–99	160
200	600	1222	202	310	60	361LSC–65 361LSC–99	245
250	730	1222	270	310	60	361LSC–99 361LSC–160	345
300	850	1400	290	310	60	361LSC–99 361LSC–160	465

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. The structure length standard is DIN 3202;
3. We can customize the production of valve products suitable for various severe conditions according to customer requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
4. Various brands of electric (intelligent) actuators can be selected according to customer requirements.

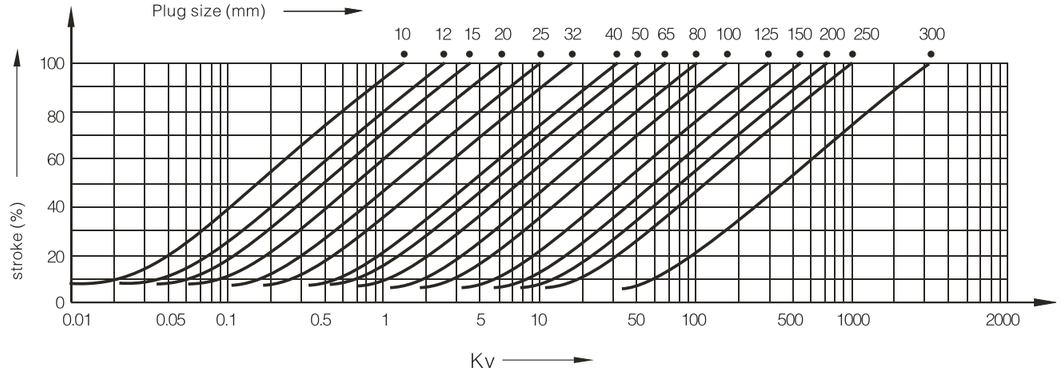
The main technical data

HDG300 series standard technical data

Nominal diameter		20	25	32	40	50	65	80	100	125	150	200	250	300
Rated Kv	Linear	6.9	11	17.6	27.5	44	69	110	176	275	440	690	1100	1760
	Equal percentage	6.3	10	16	25	40	63	100	160	250	400	630	1000	1600
Rated stroke L (mm)		16		25			40			60			100	
Diaphragm effective area (pneumatic valve) Ae(cm^2)		280		400			600			1000			1600	
Inherent flow characteristics		Linear, equal percentage												
Inherent regulating ratio		50:1												
Allowable leakage		Hard seal: Grade IV (10^{-4} × Kv); Soft seal: Grade VI (see GB / T4213–2008)												

Temperature and pressure range of valve body and bonnet (see appendix)
Temperature and pressure range of valve trim and packing (see appendix)

Flow characteristics (percentage characteristics such as IEC standards)



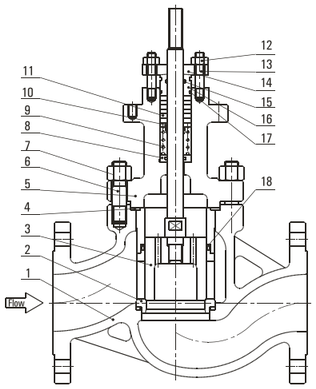
Valve inherent flow characteristic curve

Percentage of opening of flow characteristics and corresponding flow (R = 50)

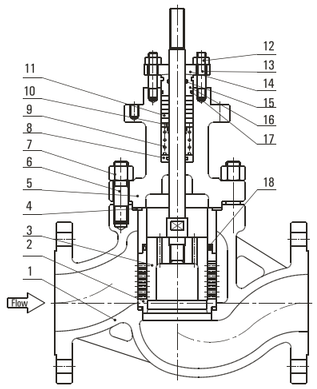
Corresponding flow (Q/Qmax)% / Percentage of opening (l/L)%	0	10	20	30	40	50	60	70	80	90	100
Linear	2	11.8	21.6	31.4	41.2	51	60.8	70.6	80.4	90.2	100
Equal percentage	2	3	4.37	6.5	9.6	14.1	20.9	30.9	45.7	67.6	100

HDG300 series standard internal structure diagram

HDG300 series cage single seat regulating valve



HDG300 series large window type



HDG300 series small hole (low noise) type

1、Body
2、Valve cage (porous sleeve)
3、Plug
4、Washers
5、Bonnet
6、Body stud
7、 Hex nuts
8、Spring underlay
9、Packing spring
10、Spring cushion
11、Packing
12、Hex nuts
13、Retainer studs
14、Packing flange
15、O–ring seal
16、Packing gland
17、O–ring seal
18、U–ring

Maximum allowable differential pressure

Pneumatic diaphragm type actuator allowable differential pressure table

Air close (positive-acting) metal seal allowable differential pressure table **(Unit: Mpa)**

Actuator	Spring range KPa	Air source pressure MPa	Seat diamete DN												
			20	25	32	40	50	65	80	100	125	150	200	250	300
PZMA–4	20–100	0.14	9.09	4.80											
	40–200	0.25	10.0	6.80											
	80–240	0.40	10.0	6.80											
PZMA–5	20–100	0.14			5.01	4.14	3.26								
	40–200	0.25			7.10	5.87	4.62								
	80–240	0.40			10.0	10.0	10.0								
PZMA–6	20–100	0.14						4.09	3.30	2.63					
	40–200	0.25						5.79	4.68	3.73					
	80–240	0.40						10.0	9.30	6.96					
PZMA–7	20–100	0.14									3.62	3.01	2.25		
	40–200	0.25									5.14	4.27	3.19		
	80–240	0.40									10.0	9.30	6.96		
PZMA–8	20–100	0.14												4.86	4.06
	40–200	0.25												6.08	5.07
	80–240	0.40												10.0	10.0

Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows.

Pneumatic diaphragm type actuator allowable differential pressure table

Air-open (negative action) metal seal allowable differential pressure table **(Unit: MPa)**

Actuator	Spring range KPa	Air source pressure MPa	Seat diamete DN												
			20	25	32	40	50	65	80	100	125	150	200	250	300
PZMB–4	20–100	0.14	1.51	0.80											
	40–200	0.25	9.09	4.80											
	80–240	0.28	10.0	10.0											
PZMB–5	20–100	0.14			0.83	0.69	0.54								
	40–200	0.25			5.01	4.11	3.26								
	80–240	0.28			10.0	10.0	8.70								
PZMB–6	20–100	0.14						0.68	0.55	0.43					
	40–200	0.25						4.09	3.30	2.63					
	80–240	0.28						9.80	8.82	7.03					
PZMB–7	20–100	0.14									0.60	0.50	0.37		
	40–200	0.25									3.62	3.01	2.25		
	80–240	0.28									9.67	8.04	6.02		
PZMB–8	20–100	0.14												4.86	4.06
	40–200	0.25												6.08	5.07
	80–240	0.28												10.0	10.0

Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows.

Fully electronic and electric actuator allowable differential pressure table

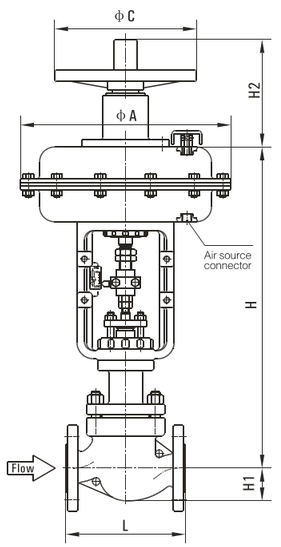
Power on / off metal seal allowable differential pressure table **(Unit: MPa)**

Actuator	Power V.AC	Seat diamete DN											
		20	25	32	40	50	65	80	100	125	150	200	250	300
361LSA–20 341LSA–20	220	10.0	10.0	10.0	8.19									
361LSB–30 341LSB–30	220			10.0	10.0	10.0								
361LSB–50 341LSB–50	220					10.0	10.0	10.0	8.37					
361LSC–65 341LSC–65	220						10.0	10.0	10.0	8.59	7.19	5.56		
361LSC–99 341LSC–99	220									10.0	10.0	8.56	6.75	5.63
361LSC–160 341LSC–160	220									10.0	10.0	10.0	10.0	9.01

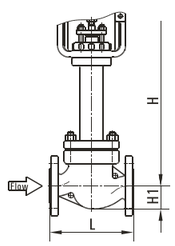
Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows.

HDG300series cage single seat regulating valve dimensions and weight

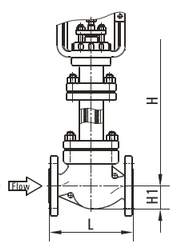
HDG300A Series, HDG310B Series, HDG310D series cage single seat regulating valve dimensions and weight



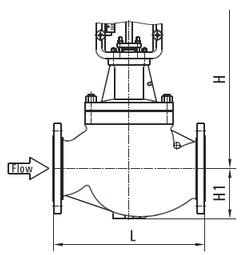
HDG300A series standard type



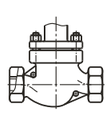
HDG300B series extension type



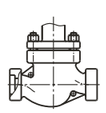
HDG300D series bellows seal type



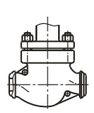
DN≥125 diameter valve outline drawing



Threaded connection



Socket welding connection



Butt welding connection

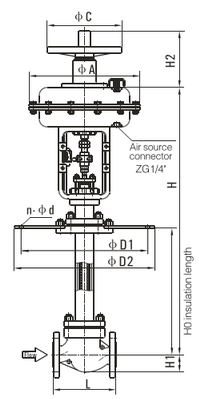
These three connection sizes are available upon request

Standard, extended, bellows sealed dimensions **(Unit: mm)**

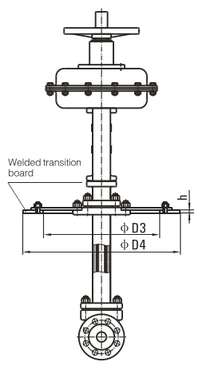
DN	L		H			H1	A	C	H2	Weight (kg)	
	PN16,40	PN63,100	Standard type	Extended type	Bellows type					PN16	PN63
20	150	206	430	530	530	42	282	220	180	21	24
25	160	210	430	530	530	48	282	220	180	22	25
32	180	220	450	600	600	56	308	220	180	24	30
40	200	251	450	600	600	64	308	220	180	32	42
50	230	286	455	605	605	76	308	220	180	38	52
65	290	311	600	750	750	85	394	270	240	62	78
80	310	337	600	750	750	100	394	270	240	67	82
100	350	394	618	768	768	110	394	270	240	82	102
125	400	460	728	878	878	126	498	320	310	132	170
150	480	508	802	952	952	160	498	320	310	160	190
200	600	610	836	986	986	202	498	320	310	245	285
250	730	752	1005	1155	1155	270	618	320	310	345	398
300	850	819	1085	1335	1335	290	618	320	310	465	505

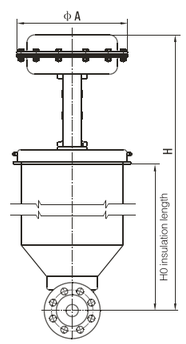
Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. PN16, PN40 structure length standard is DIN 3202. PN63, PN100 structure length standard is ISA 75.03;
3. We can customize the production of valve products suitable for various severe conditions according to the requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
4. The handwheel is a non–standard valve accessory, which can be selected according to customer requirements.

HDG300C series low temperature cage single seat regulating valve dimensions and weight

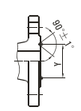


Connection plate mounting type





Floating sleeve cage installation type (DN20–100)



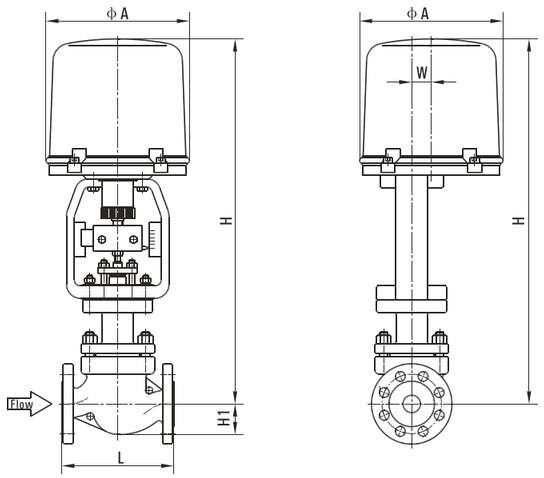
All metal O–ring groove size

Low-temperature type dimensions **(Unit: mm)**

DN	L		H0						D1	D2	D3	D4	n-d	h	H1	A	C	H2	Y	Weight (kg)	
	PN16 PN40	PN63 PN100	500	600	700	800	900	1000													
			H																	PN16	PN63
20	150	206	930	1030	1130	1230	1330	1430	305	335	270	335	8–14	15	42	282	220	180	45	40	46
25	160	210	930	1030	1130	1230	1330	1430	305	335	270	335	8–14	15	48	282	220	180	45	48	55
32	180	220	950	1050	1150	1250	1350	1450	340	370	305	390	8–14	15	56	308	220	180	60	52	60
40	200	251	950	1050	1150	1250	1350	1450	370	400	342	430	8–16	18	64	308	220	180	65	60	69
50	230	286	955	1055	1155	1255	1355	1455	405	435	375	465	8–16	18	76	308	220	180	75	68	78
65	290	311	1100	1200	1300	1400	1500	1600	460	490	430	520	10–16	18	85	394	270	240	90	90	104
80	310	337	1100	1200	1300	1400	1500	1600	525	555	490	585	10–16	20	100	394	270	240	104	105	121
100	350	394	1118	1218	1318	1418	1518	1618	590	630	556	660	12–18	20	110	394	270	240	135	143	164
125	400	460	1228	1328	1428	1528	1628	1728	700	740	665	770	14–18	20	126	498	320	310	165	210	242
150	480	508	1302	1402	1502	1602	1702	1802	700	740	665	770	16–18	20	160	498	320	310	195	282	324
200	600	610	1336	1436	1536	1636	1736	1836	805	845	765	890	18–18	20	202	498	320	310	245	315	362

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. PN16, PN40 structure length standard is DIN 3202, PN63, PN100 structure length standard is ISA 75.03;
3. We can customize the production of valve products suitable for various severe conditions according to customer requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
4. The insulation length H0 can be customized according to the medium temperature and customer requirements. The flange of the low temperature regulating valve can be sealed with a metal O–ring (LF2), and an aluminum shoulder ring (LF4) can be used according to customer requirements.
5. The hand wheel mechanism is a non–standard valve accessory, which can be selected according to customer requirements;
6. The welding transition plate is a non–standard valve accessory, which can be selected according to customer requirements.

HDG300 series cage single seat regulating valve dimensions and weight



Electric cage single seat regulating valve **(Unit: mm)**

DN	L	H	H1	A	W	Actuator model	Weight (kg)
20	150	518	42	225	28	361LSA–20	21
25	160	518	48	225	28	361LSA–20	22
32	180	695	56	255	28	361LSB–30	24
40	200	695	64	255	45	361LSB–30	32
50	230	700	76	255	45	361LSB–30	38
65	290	986	85	310	45	361LSB–50 361LSC–65	62
80	310	986	100	310	60	361LSB–50 361LSC–65	67
100	350	1004	110	310	60	361LSB–50 361LSC–65	82
125	400	1114	126	310	60	361LSC–65 361LSC–99	132
150	480	1188	160	310	60	361LSC–65 361LSC–99	160
200	600	1222	202	310	60	361LSC–65 361LSC–99	245
250	730	1222	270	310	60	361LSC–99 361LSC–160	345
300	850	1400	290	310	60	361LSC–99 361LSC–160	465

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. The structure length standard is DIN 3202;
3. We can customize the production of valve products suitable for various severe conditions according to customer requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
4. Various brands of electric (intelligent) actuators can be selected according to customer requirements.

HDD100 Series Double Seat Regulating Valve

CANADA KINGSWAY FLOW CONTROL CO., LTD.

Overview

HDD100 series double–seat regulating valve is a pressure–balanced regulating valve. The valve body has a compact structure, light weight, large valve capacity, and accurate flow characteristics. The valve adopts a dual–guide structure at the top and bottom, and has two upper and lower spherical valve plugs, which makes the unbalanced force of the medium on the valve plugs small so that a small operating force can be achieved to stable the regulating;
This series of regulating valve can be easily made into special structures such as bellows sealing type, steam jacket type and extended upper bonnet.

Technical data and features

Valve Body

Type:	Fluid pressure balanced Plug
Nominal Diameter:	20 ~ 400 mm (3/4 "~ 16")
Plug Type:	plunger
Flow Characteristics:	Equal percentage, linear
Nominal Pressure:	PN1.6, 2.5, 4.0, 6.3MPa
	ANSI Class 150, 300, 600;
	JIS 10K, 20K, 30K
Connection Type:	Flange (RF FM concave RTJ) Threaded
	Welding [Socket welding SW (Dn≤50) Butt welding BW (DN≥65)]
Flange standard:	ASME B16.5–2013
	DIN EN 1092–1–2008
	GB/T 9113–2010
	HG/T 20615–2019
	HG/T20592–2019
Face to Face Distance:	GB / T12221–2005
Body and Bonnet Material:	WCB WC6 LCB CF8 CF8M
	CF3 CF3M Hastelloy C
Trim Material:	0Cr18Ni9 (304); 0Cr17Ni12Mo2 (316)
	00Cr17Ni14Mo2 (316L)
	Above + Stellite (hard faced)

Upper Bonnet Type:	HDD100A series standard type –30 ~ 200 ℃
	HDD100B series extended type –60 ~ 560 ℃
	HDD100C series low temperature type –196 ~ –45 ℃
	HDD100E series steam jacket insulation type
	HDD100D series bellows seal type
Structure:	HDD100 series double seat regulating valve
Packing:	PTFE V–packing
	Reinforced PTFE packing
	Expanded graphite packing
Others:	1. When the valve is a metal hard seal and the leakage rate of the valve is required to reach level IV, please specify in the contract;
	2. If the valve may have cavitation, it is recommended to choose a low–noise cage regulating valve;
	3. If the valve may flash, it is recommended to choose reduced–bore type, valve core and valve seat surfacing hard alloy.

Actuator part

Item \ Type		Pneumatic diaphragm type	Pneumatic piston type	Full electronic
Task		Regulating, On/Off	Regulating, On/Off	Regulating
Spring range		20–100； 40–200； 80–240KPa	–	–
Air source/power		0.14, 0.25, 0.4MPa	0.4~0.6MPa	220V • AC 50Hz 380V • AC 50Hz
Connector		Rc1/4", Rc3/8"	Rc1/4",Rc1/2", Rc3/8"	Wiring: 2–G1/2 "
Connection type of action		Air open, air close	Air open, air close, double acting	Power on, power off
Intrinsic error	General type	± 1.5% Fs (With positioner)		± 1.0% Fs
	Special type	± 4.0% Fs (With positioner)		± 2.5% Fs
Hysteresis error	General type	⩽1.5% Fs (With positioner)		⩽1.0% Fs
	Special type	⩽3.0% Fs (With positioner)		⩽2.0% Fs
Allowable ambient temperature		–10 ~ +70℃		–10 ~ +60℃
Optional valve accessories		Electrical valve positioner, air filter regulator, solenoid valve, limit switch, lock–up valve, manual device		Overload unit

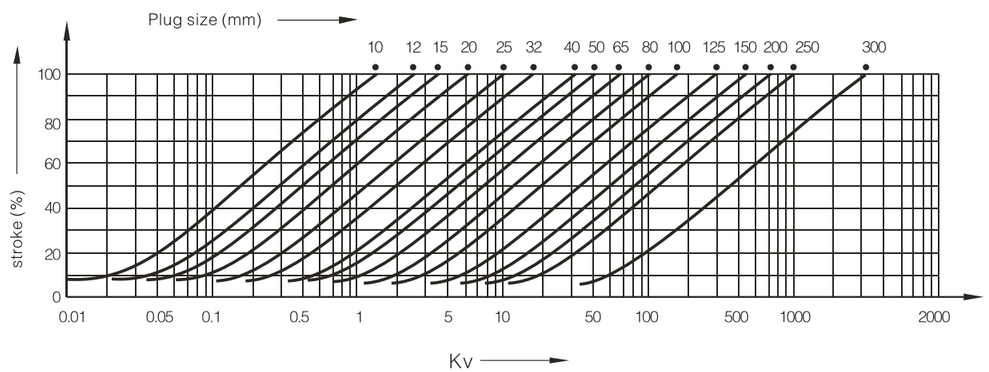
The main technical data

HDD100 series standard technical data

Nominal diameter		25	32	40	50	65	80	100	125	150	200	250	300
Rated Kv	Linear	12	19	30	48	76	121	193	300	480	760	1210	1936
	Equal percentage	11	17.6	27.5	44	69	110	176	275	440	690	1100	1760
Rated stroke L (mm)		16	25			40			60			100	
Diaphragm effective area (pneumatic valve) Ae(cm^2)		280	400			600			1000			1600	
Inherent flow characteristics		Linear, equal percentage											
Inherent regulating ratio		50:1											
Allowable leakage		Hard seal: Class II ($0.5 \times 10^{-3} \times$ Kv) (see GB / T4213–2008)											

Temperature and pressure range of valve body and bonnet (see appendix)
Temperature and pressure range of valve trim and packing (see appendix)

Flow characteristics (percentage characteristics such as IEC standards)



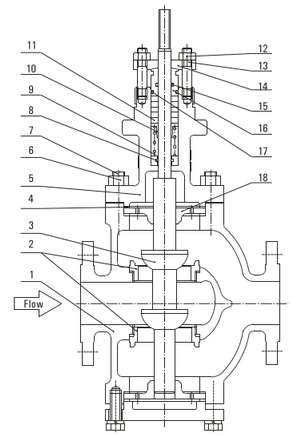
Valve inherent flow characteristic curve

Percentage of opening of flow characteristics and corresponding flow (R = 50)

Corresponding flow (Q/Qmax)% / Percentage of opening (I/L)%	0	10	20	30	40	50	60	70	80	90	100
Linear	2	11.8	21.6	31.4	41.2	51	60.8	70.6	80.4	90.2	100
Equal percentage	2	3	4.37	6.5	9.6	14.1	20.9	30.9	45.7	67.6	100

HDD100 series standard internal structure diagram

HDD100 series double seat regulating valve diagram



1、Body
2、Seat
3、Plug
4、Washers
5、Bonnet
6、Hex nuts
7、Body stud
8、Spring underlay
9、Packing spring
10、Spring cushion
11、Packing
12、Hex nuts
13、Retainer studs
14、Packing flange
15、O–ring seal
16、Packing gland
17、O–ring seal
18、Guide sleeve

Maximum allowable differential pressure

Pneumatic diaphragm type actuator allowable differential pressure table

Air close (positive-acting) metal seal allowable differential pressure table **(Unit: MPa)**

Actuator	Spring range KPa	Air source pressure MPa	Seat diamete DN											
			25	32	40	50	65	80	100	125	150	200	250	300
PZMA–4	20–100	0.14	4.33											
	40–200	0.25	6.14											
	80–240	0.40	6.30											
PZMA–5	20–100	0.14		4.40	3.49	2.77								
	40–200	0.25		6.24	4.94	3.92								
	80–240	0.40		6.30	6.30	6.30								
PZMA–6	20–100	0.14					3.27	2.64	2.10					
	40–200	0.25					4.63	3.75	2.98					
	80–240	0.40					6.30	6.30	6.30					
PZMA–7	20–100	0.14								2.90	2.41	1.80		
	40–200	0.25								4.11	3.42	2.55		
	80–240	0.40								6.30	6.30	5.56		
PZMA–8	20–100	0.14											0.76	0.63
	40–200	0.25											1.74	1.45
	80–240	0.40											3.48	2.90

Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows.

Pneumatic diaphragm type actuator allowable differential pressure table

Air-open (negative action) metal seal allowable differential pressure table **(Unit: MPa)**

Actuator	Spring range KPa	Air source pressure MPa	Seat diamete DN											
			25	32	40	50	65	80	100	125	150	200	250	300
PZMB–4	20–100	0.14	0.72											
	40–200	0.25	4.33											
	80–240	0.28	6.30											
PZMB–5	20–100	0.14		0.73	0.58	0.46								
	40–200	0.25		4.41	3.49	2.77								
	80–240	0.28		6.30	6.30	6.30								
PZMB–6	20–100	0.14					0.55	0.44	0.35					
	40–200	0.25					3.27	2.65	2.11					
	80–240	0.28					6.30	6.30	6.30					
PZMB–7	20–100	0.14								0.48	0.40	0.30		
	40–200	0.25								2.90	2.41	1.81		
	80–240	0.28								6.30	6.30	4.82		
PZMB–8	20–100	0.14											0.76	0.63
	40–200	0.25											1.74	1.45
	80–240	0.28											3.48	2.90

Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows.

Fully electronic and electric actuator allowable differential pressure table

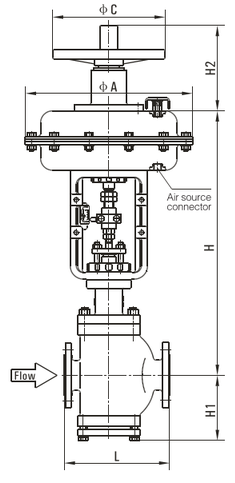
Power on / off metal seal allowable differential pressure table **(Unit: MPa)**

Actuator	Power V.AC	Seat diamete DN											
		25	32	40	50	65	80	100	125	150	200	250	300
361LSA–20 341LSA–20	220	6.30	6.30	6.30									
361LSB–30 341LSB–30	220		6.30	6.30	6.30								
361LSB–50 341LSB–50	220				6.30	6.30	6.30	6.30					
361LSC–65 341LSC–65	220					6.30	6.30	6.30	6.30	6.30	5.47		
361LSC–99 341LSC–99	220								6.30	6.30	6.30	6.30	5.63
361LSC–160 341LSC–160	220								6.30	6.30	6.30	6.30	6.30

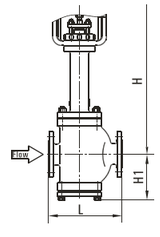
Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows.

HDD100 series double seat regulating valve dimensions and weight

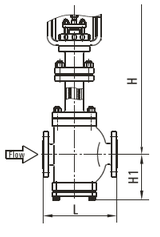
HDD100A Series, HDD100B Series, HDD100D series double seat regulating valve



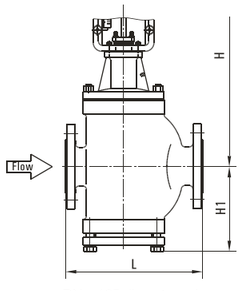
HDD100A series standard type



HDD100D series bellows seal type



HDD100B series extension type



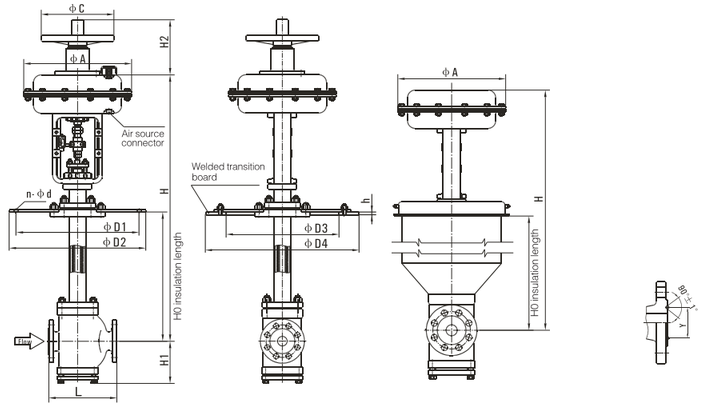
DN≥125 diameter valve outline drawing

Standard, extended, bellows sealed dimensions **(Unit: mm)**

DN	L		H			H1	A	C	H2	Weight (kg)	
	PN16,40	PN63,100	Standard type	Extended type	Bellows type					PN16	PN63
25	160	210	480	580	580	110	282	220	180	26	30
32	180	220	500	650	650	130	308	220	180	28	35
40	200	251	500	650	650	135	308	220	180	37	47
50	230	286	505	655	655	145	308	220	180	43	58
65	290	311	650	800	800	175	394	270	240	67	64
80	310	337	650	800	800	195	394	270	240	71	88
100	350	394	668	818	818	210	394	270	240	88	109
125	400	460	778	928	928	265	498	320	310	136	179
150	480	508	852	1002	1002	280	498	320	310	168	202
200	600	610	886	1036	1036	345	498	320	310	260	305
250	730	752	1055	1205	1205	430	618	320	310	345	398
300	850	819	1135	1385	1385	480	618	320	310	465	505

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. PN16, PN40 structure length standard is DIN 3202. PN63, PN100 structure length standard is ISA 75.03;
3. We can customize the production of valve products suitable for various severe conditions according to the requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
4. The handwheel is a non–standard valve accessory, which can be selected according to customer requirements.

HDD100C series low–temperature double–seat regulating valve dimensions and weight



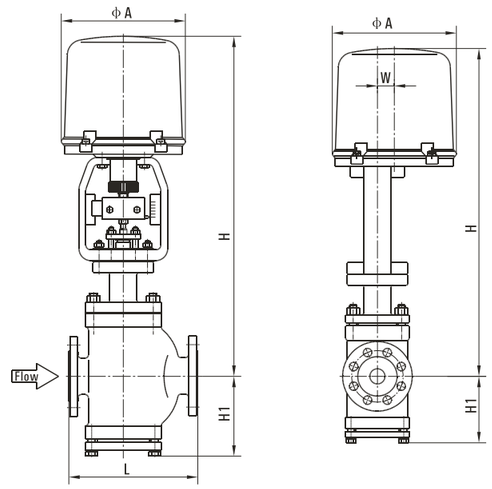
Connection plate mounting type　　Floating sleeve cage installation type (DN20–100)　　All metal O–ring groove size

Low–temperature type dimensions　　(Unit: mm)

DN	L		H0						D1	D2	D3	D4	n–d	h	H1	A	C	H2	Y	Weight (kg)	
	PN16 PN40	PN63 PN100	500	600	700	800	900	1000													
			H																	PN16	PN63
25	160	210	980	1080	1180	1280	1380	1480	305	335	270	335	8–14	15	110	282	220	180	45	51	48
32	180	220	1000	1100	1200	1300	1400	1500	340	370	305	390	8–14	15	130	308	220	180	60	55	52
40	200	251	1000	1100	1200	1300	1400	1500	370	400	342	430	8–16	18	135	308	220	180	65	65	60
50	230	286	1005	1105	1205	1305	1405	1505	405	435	375	465	8–16	18	145	308	220	180	75	74	68
65	290	311	1150	1250	1350	1450	1550	1650	460	490	430	520	10–16	18	175	394	270	240	90	95	90
80	310	337	1150	1250	1350	1450	1550	1650	525	555	490	585	10–16	20	195	394	270	240	104	110	105
100	350	394	1168	1268	1368	1468	1568	1668	590	630	556	660	12–18	20	210	394	270	240	135	149	143
125	400	460	1278	1378	1478	1578	1678	1778	700	740	665	770	14–18	20	265	498	320	310	165	218	210
150	480	508	1352	1452	1552	1652	1752	1852	700	740	665	770	16–18	20	280	498	320	310	195	295	282
200	600	610	1386	1486	1586	1686	1786	1886	805	845	765	890	18–18	20	345	498	320	310	245	325	315

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. PN16, PN40 structure length standard is DIN 3202, PN63, PN100 structure length standard is ISA 75.03;
3. We can customize the production of valve products suitable for various severe conditions according to customer requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
4. The insulation length H0 can be customized according to the medium temperature and customer requirements. The flange of the low temperature regulating valve can be sealed with a metal O–ring (LF2), and an aluminum shoulder ring (LF4) can be used according to customer requirements.
5. The hand wheel mechanism is a non–standard valve accessory, which can be selected according to customer requirements;
6. The welding transition plate is a non–standard valve accessory, which can be selected according to customer requirements.

HDD100 series electric double seat regulating valve dimensions and weight

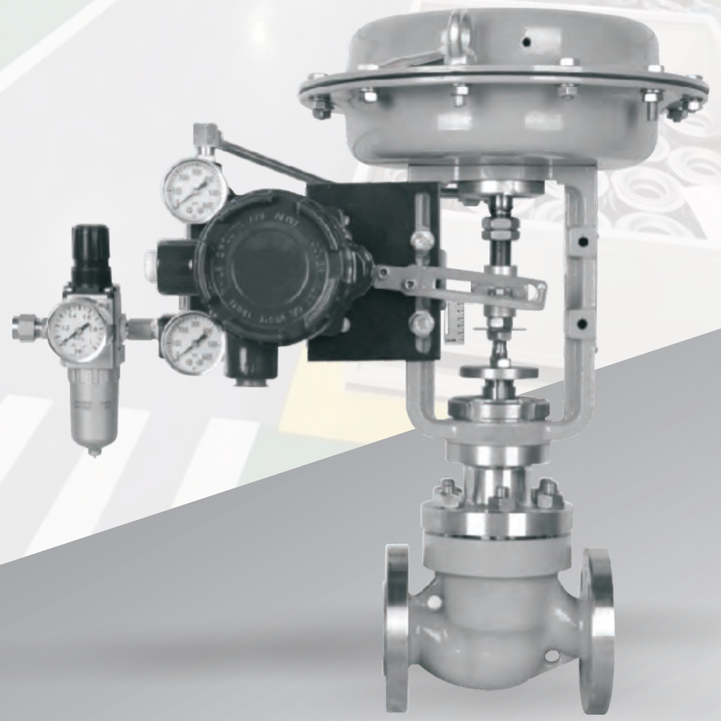


Electric cage single seat regulating valve　　(Unit: mm)

DN	L	H	H1	A	W	Actuator model	Weight (kg)
25	160	568	110	225	28	361LSA–20	26
32	180	745	130	255	28	361LSB–30	28
40	200	745	135	255	45	361LSB–30	37
50	230	750	145	255	45	361LSB–30	43
65	290	1036	175	310	45	361LSB–50 361LSC–65	67
80	310	1036	195	310	60	361LSB–50 361LSC–65	71
100	350	1054	210	310	60	361LSB–50 361LSC–65	88
125	400	1164	265	310	60	361LSC–65 361LSC–99	136
150	480	1238	280	310	60	361LSC–65 361LSC–99	168
200	600	1272	345	310	60	361LSC–65 361LSC–99	260
250	730	1272	430	310	60	361LSC–99 361LSC–160	345
300	850	1450	480	310	60	361LSC–99 361LSC–160	465

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. The structure length standard is DIN 3202;
3. We can customize the production of valve products suitable for various severe conditions according to the requirements. If the customer has no special requirements, product will be supplied according to the standard configuration;
4. Various brands of electric (intelligent) actuators can be selected according to customer requirements.

HDG100-M Series Small Flow Single Seat Regulating Valve



CANADA KINGSWAY FLOW CONTROL CO., LTD.

Overview

HDG100–M series mini flow single seat regulating valve has two structures: HDG100–M series top–guided type and HDG110–M series sleeve–guided type. This series of valve body has compact structure and small volume, and the fluid passage is S streamlined. It has small pressure drop loss, large flow rate, wide regulating range, high flow characteristic curve accuracy, large valve guide area, and good vibration resistance, adapting to a variety of severe working conditions;

This series of regulating valve can be easily made into special structures such as bellows sealing type, steam jacket type, and extended upper bonnet.

Technical data and features

Valve Body

Type:	Unbalanced Plug plug
Nominal Diameter:	20, 25 mm (3/4 ", 1")
Plug Plug Type:	Plunger
Flow Characteristics:	Equal percentage, linear, switch
Nominal Pressure:	PN 1.6, 2.5, 4.0, 6.3, 10.0 Mpa
	ANSI Class 150, 300, 600;
	JIS 10K, 20K, 30K, 40K
Connection Type:	Flange (RF FM concave RTJ) Threaded Welding [Socket welding]
Flange Standard:	ASME B16.5–2013
	DIN EN 1092–1–2008
	GB/T 9113–2010
	HG/T 20615–2019
	HG/T20592–2019
Face to Face Distance:	GB / T12221–2005
Body and Bonnet Material:	WCB WC6 LCB CF8 CF8M
	CF3 CF3M Hastelloy C
Trim Material:	0Cr18Ni9 (304); 0Cr17Ni12Mo2 (316)
	00Cr17Ni14Mo2 (316L)
	Above + R.TFE (Reinforeced PTFE)
	Above + Stellite (hard faced)

Upper Bonnet Type: HDG100A–M series standard type –30 ~ 200 ℃

HDG100B–M series extended type –60 ~ 560 ℃

HDG100C–M series low temperature type –196 ~ –45 ℃

HDG100D–M series bellows seal type

HDG100E–M series steam jacket insulation type

Structural Form: HDG100–M series

Top Guided Small Flow Single Seat regulating valve

HDG110–M series Cage guided small flow single seat regulating valve

Packing: PTFE V–packing

Reinforced PTFE packing

Expanded graphite packing

Others:

1. When the valve is a metal hard seal and the valve seat leakage rate is required to reach V, please specify in the contract.
2. If cavitation may occur in the valve, it is recommended to choose a sleeve–oriented regulating valve.
3. If the valve may flash, it is recommended to choose a reduced–bore type, and plug plug and valve seat are hard faced.

Actuator part

Item \ Type	Pneumatic diaphragm type	Pneumatic piston type	Full electronic	Electric
Task	Regulating, On/Off	Regulating, On/Off	Regulating	Switch
Spring range	20–100; 40–200; 80–240KPa	–	–	–
Air source/power	0.14, 0.25, 0.4MPa	0.4~0.6MPa	220V · AC 50Hz 380V · AC 50Hz	220V · AC 50Hz 380V · AC 50Hz
Connector	Rc1/4", Rc3/8"	Rc1/4",Rc1/2", Rc3/8"	Wiring: 2–G1/2 "	Wiring: 2–G1/2 "
Connection type of action	Air open, air close	Air open, air close, double acting	Power on, power off	Power on, power off
Hysteresis error	⩽1.5% Fs(With positioner)		⩽0.8% Fs	–
Linear	⩽2% Fs(With positioner)		⩽1.0% Fs	–
Allowable ambient temperature	–10 ~ +70℃		–10 ~ +60℃	
Optional valve accessories	Electrical valve positioner, air filter regulator, solenoid valve, limit switch, lock–up valve, manual device		Overload unit	Inching switch for position detecting, potentiometer

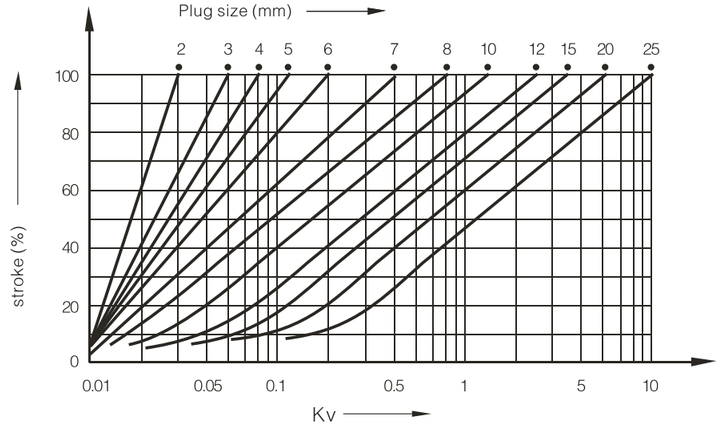
The main technical data

HDG100-M series standard technical data

Nominal diameter		20、25												
		2	3	4	5	6	7	8	9	10	12	15	20	25
Rated Kv	Linear	0.02	0.08	0.12	0.20	0.32	0.5	0.8	1.2	1.8	2.8	4.4	6.9	11
	Equal percentage	–	–	–	–	–	–	–	–	1.6	2.5	4	6.3	10
Rated stroke L (mm)		16												
Diaphragm effective area (pneumatic valve) Ae(cm^2)		280												
Inherent flow characteristics		Linear, modified linear, equal percentage												
Inherent regulating ratio		50:1												
Allowable leakage		Hard seal: Grade IV (10^{-4} × Kv); Soft seal: Grade VI (see GB / T4213–2008)												

Temperature and pressure range of valve body and bonnet (see appendix)
Temperature and pressure range of valve trim and packing (see appendix)

Flow characteristics

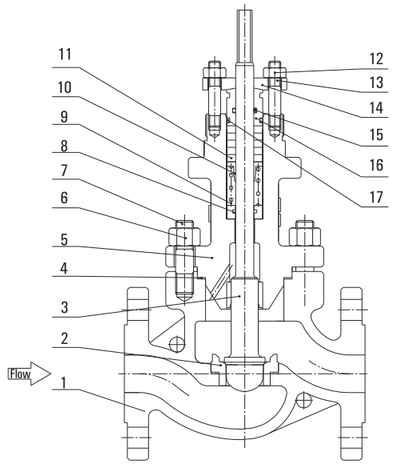


Percentage of opening of flow characteristics and corresponding flow (R = 50)

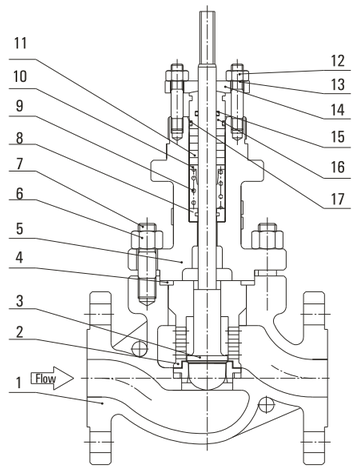
Percentage of opening (l/L)% \ Corresponding flow (Q/Qmax)%	0	10	20	30	40	50	60	70	80	90	100
Linear	2	11.8	21.6	31.4	41.2	51	60.8	70.6	80.4	90.2	100
Equal percentage	2	3	4.37	6.5	9.6	14.1	20.9	30.9	45.7	67.6	100

HDG100–M Series Standard Internal Structure

HDG100–M series small flow single seat regulating valve internal structure diagram



HDG100–M series top guide type



HDG100–M series cage guide type

1、Body
2、Seat (Cage)
3、Plug plug
4、Washers
5、Bonnet
6、Hex nuts
7、Body stud
8、Spring underlay
9、Packing spring
10、Spring cushion
11、Packing
12、Hex nuts
13、Retainer studs
14、Packing flange
15、O–ring seal
16、Packing gland
17、O–ring seal

Maximum allowable differential pressure

Pneumatic diaphragm type actuator allowable differential pressure table

Air close (positive-acting) metal seal allowable differential pressure table **(Unit: MPa)**

Actuator	Spring range KPa	Air source pressure MPa	Seat diamete DN												
			2	3	4	5	6	7	8	9	10	12	15	20	25
PZMA–4	20–100	0.14	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	7.9	5.1	2.9	1.8
	40–200	0.25	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	6.3	3.6	2.3
	80–240	0.40	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	7.1	4.6

Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows.

Pneumatic diaphragm type actuator allowable differential pressure table

Air-open (negative action) metal seal allowable differential pressure table **(Unit: Mpa)**

Actuator	Spring range KPa	Air source pressure MPa	Seat diamete DN												
			2	3	4	5	6	7	8	9	10	12	15	20	25
PZMB–4	20–100	0.14	10.0	10.0	10.0	10.0	10.0	10.0	8.9	7.0	5.7	4.0	2.5	1.4	0.9
	40–200	0.25	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	7.9	5.1	2.9	1.8
	80–240	0.28	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	5.7	3.7

Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows.

Fully electronic and electric actuator allowable differential pressure table

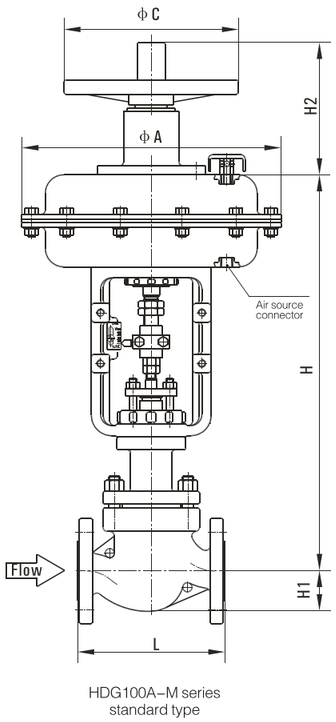
Gas-on/electric-off metal seal allowable differential pressure table **(Unit: Mpa)**

Actuator	Power supply V·Ac	Seat diamete DN												
		2	3	4	5	6	7	8	9	10	12	15	20	25
361LSA–20 341LSA–20	220	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	9.1	5.1	3.3

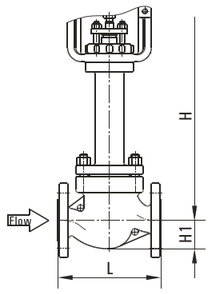
Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows.

HDG100–M series mini flow single seat regulating valve dimensions and weight

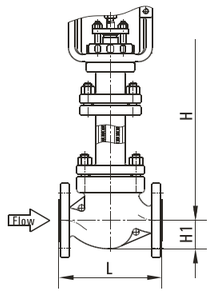
HDG100A–M series, HDG100B–M series, HDG100D–M series single seat regulating valve



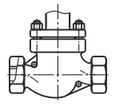
HDG100A–M series
standard type



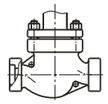
HDG100B–M series
extension type



HDG100D–M series
bellows seal type



Threaded connection



Socket welding connection

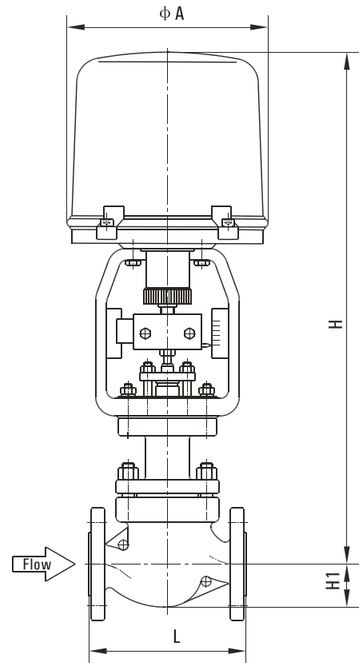
Please inquire these two connection sizes!

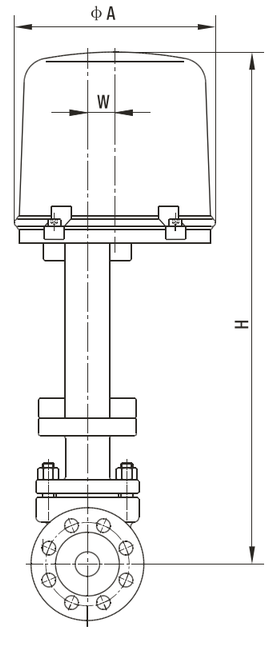
Standard, extended, bellows sealed dimensions **(Unit: mm)**

DN	L		H			H1	A	C	H2	Weight (kg)	
	PN16,40	PN63,100	Standard type	Extended type	Bellows type					PN16	PN63
20	150	206	430	530	530	42	282	220	180	21	24
25	160	210	430	530	530	48	282	220	180	22	25

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. The structure length standard is DIN 3202;
3. We can customize the production of valve products suitable for various severe conditions according to the requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
4. The handwheel mechanism is a non–standard valve accessory, which can be selected according to customer requirements.

HDG100–M series electric small flow single seat regulating valve dimensions and weight



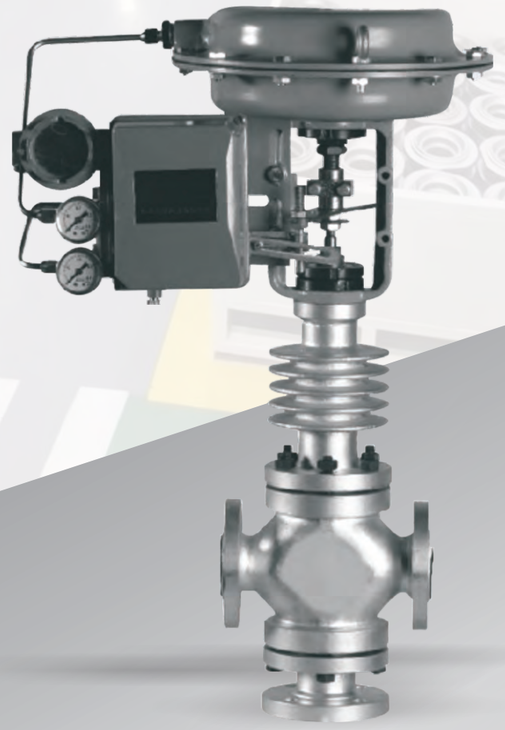


Dimensions of electric small flow regulating valve **(Unit: mm)**

DN	L	H	H1	A	W	Actuator model	Weight (kg)
20	150	518	42	225	28	361LSA–20 341LSA–20	21
25	160	518	48	225	28	361LSA–20 341LSA–20	22

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. The structure length standard is DIN 3202;
3. We can customize the production of valve products suitable for various severe conditions according to the requirements. If the customer has no special requirements, product will be supplied according to the standard configuration;
4. Various brands of electric (intelligent) actuators can be selected according to customer requirements.

HDT300 Series Three-way Regulating Valve



CANADA KINGSWAY FLOW CONTROL CO., LTD.

Overview

Dt300 series three–way regulating valve has two structures: HDT300X series three–way diverting type and HDT300Q series three–way converging type. The three–way diverting type is to divide one fluid into two fluids; the three–way converging type is to combine two fluids into one; Three–way regulating valve is often used for bypass regulating of heat exchangers, and can also be used for simple ratio regulating. This series of products can replace two single and double seat regulating valves that are on and off for each other, suitable for regulating and control of medium like liquid, gas, steam, etc.

This series of regulating valve can be easily made into special structures such as bellows sealing type, steam jacket type and extended upper bonnet.

Technical data and features

Valve Body

Type:	Fluid pressure unbalanced plug
Nominal Diameter:	20 ~ 400 mm (3/4 "~ 16")
Plug Type:	Thin wall guide type
Flow Characteristics:	Equal percentage, linear, switch
Nominal Pressure:	PN1.6, 2.5, 4.0, 6.3, 10.0MPa
	ANSI Class 150, 300, 600
	JIS 10K, 20K, 30K, 40K
Connection Type:	Flange (RF FM concave RTJ)
Flange Standard:	ASME B16.5–2013
	DIN EN 1092–1–2008
	GB/T 9113–2010
	HG/T 20615–2019
	HG/T20592–2019
Face to Face Distance:	GB / T12221–2005
	ASME B16.10–2000
Body and Bonnet Material:	WCB WC6 LCB CF8 CF8M
	CF3 CF3M Hastelloy C

Upper bonnet type:	HDT300A series standard type –30 ~ 200 ℃
	HDT300B series extended type –60 ~ 560 ℃
	HDT300D series bellows seal type
Structure:	HDT300X series three–way diverting type
	HDT300Q series three–way converging type
Packing:	PTFE V–packing
	Reinforced PTFE packing
	Expanded graphite packing
Others:	1. When the valve is a metal hard seal and the valve seat vortex loss rate reaches Grade V , please specify in the contract;
	2. Generally, the working temperature difference of three–way regulating valve is <150℃. When the temperature difference is too large, it is recommended to use two two–way valves instead.

Actuator part

Item \ Type		Pneumatic diaphragm type	Pneumatic piston type	Full electronic	Electric
Task		Regulating, On/Off	Regulating, On/Off	Regulating	Switch
Spring range		20–100； 40–200； 80–240KPa	–	–	–
Air source/power		0.14, 0.25, 0.4MPa	0.4~0.6MPa	220V · AC 50Hz 380V · AC 50Hz	220V · AC 50Hz 380V · AC 50Hz
Connector		Rc1/4", Rc3/8"	Rc1/4",Rc1/2", Rc3/8"	Wiring: 2–G1/2 "	Wiring: 2–G1/2 "
Connection type of action		Air open, air close	Air open, air close, double acting	Power on, power off	Power on, power off
Intrinsic error	General type	± 1.5% Fs (With positioner)		± 1.0% Fs	–
	Special type	± 4.0% Fs (With positioner)		± 2.5% Fs	–
Hysteresis error	General type	⩽1.5% Fs (With positioner)		⩽1.0% Fs	–
	Special type	⩽3.0% Fs (With positioner)		⩽2.0% Fs	–
Allowable ambient temperature		–10 ~ +70℃		–10 ~ +60℃	
Optional valve accessories		Electrical valve positioner, air filter regulator, solenoid valve, limit switch, lock–up valve, manual device		Overload unit	Inching switch for position detecting, potentiometer

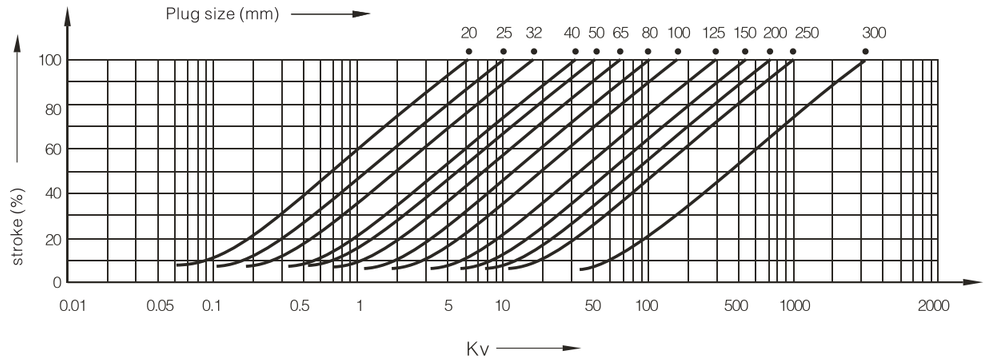
The main technical data

HDT300 series standard technical data

Nominal diameter		20	25	32	40	50	65	80	100	125	150	200
Rated Kv	Converging	5.0	8.5	13	21	34	53	85	135	210	340	535
	Diverting	Can be replaced by a converging valve structure						85	135	210	340	535
Rated stroke L (mm)		16			25			40			60	
Diaphragm effective area (pneumatic valve) Ae(cm^2)		280			400			600			1000	
Inherent flow characteristics		Linear, equal percentage										
Inherent regulating ratio		30:1										
Allowable leakage		Hard seal: Grade IV (10^{-4} × Kv); Soft seal: Grade VI (see GB / T4213–2008)										

Temperature and pressure range of valve body and bonnet (see appendix)
Temperature and pressure range of valve trim and packing (see appendix)

Flow characteristics (percentage characteristics such as IEC standards)



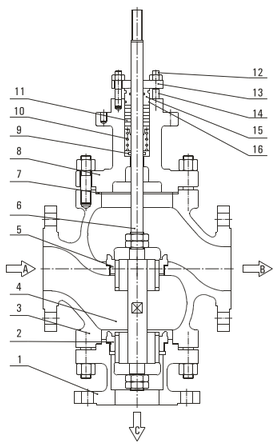
Valve inherent flow characteristic curve

Percentage of opening of flow characteristics and corresponding flow (R = 50)

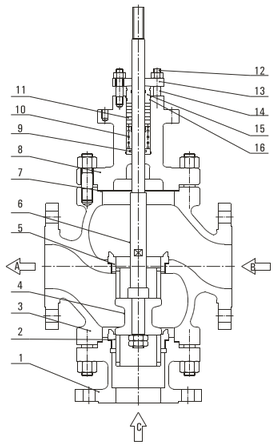
Percentage of opening (l/L)% \ Corresponding flow (Q/Qmax)%	0	10	20	30	40	50	60	70	80	90	100
Linear	2	11.8	21.6	31.4	41.2	51	60.8	70.6	80.4	90.2	100
Equal percentage	2	3	4.37	6.5	9.6	14.1	20.9	30.9	45.7	67.6	100

HDT300 series three–way regulating valve diagram

HDT300 series three-way regulating valve diagram



HDT300X series three–way diverting type (DN≥80)



HDT300Q series three–way converging type

1、Connecting tube
2、Seat
3、Body
4、Plug
5、Seat
6、 Stem
7、Washers
8、Bonnet
9、Spring underlay
10、Packing spring
11、Packing
12、Hex nuts
13、Packing flange
14、Retainer studs
15、Packing gland
16、O–ring

Maximum allowable differential pressure

Pneumatic diaphragm type actuator allowable differential pressure table

Air close (positive-acting) metal seal allowable differential pressure table **(Unit: MPa)**

Actuator	Spring range KPa	Air source pressure MPa	Seat diamete DN									
			25	32	40	50	65	80	100	125	150	200
PZMA–4	40–200	0.25	1.83									
	80–240	0.40	3.56									
PZMA–5	40–200	0.25		1.59	1.02	0.65						
	80–240	0.40		3.18	2.04	1.30						
PZMA–6	40–200	0.25					0.58	0.38	0.24			
	80–240	0.40					1.16	0.76	0.49			
PZMA–7	40–200	0.25								0.26	0.18	0.10
	80–240	0.40								0.52	0.36	0.20

Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows.

Pneumatic diaphragm type actuator allowable differential pressure table

Air-open (negative action) metal seal allowable differential pressure table **(Unit: Mpa)**

Actuator	Spring range KPa	Air source pressure MPa	Seat diamete DN									
			25	32	40	50	65	80	100	125	150	200
PZMB–4	40–200	0.25	1.83									
	80–240	0.40	3.56									
PZMB–5	40–200	0.25		1.59	1.02	0.65						
	80–240	0.40		3.18	2.04	1.30						
PZMB–6	40–200	0.25					0.58	0.38	0.24			
	80–240	0.40					1.16	0.76	0.49			
PZMB–7	40–200	0.25								0.26	0.18	0.10
	80–240	0.40								0.52	0.36	0.20

Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows.

Fully electronic and electric actuator allowable differential pressure table

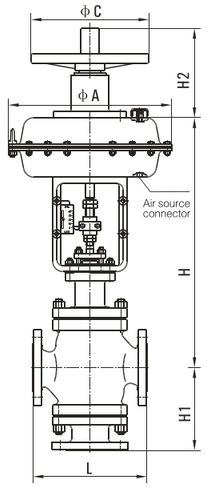
Gas-on/electric-off metal seal allowable differential pressure table **(Unit: MPa)**

Actuator	Power supply V·Ac	Seat diamete DN									
		25	32	40	50	65	80	100	125	150	200
361LSA–20 341LSA–20	220	3.26	1.99	1.27							
361LSB–30 341LSB–30	220		2.99	1.91	1.22						
361LSB–50 341LSB–50	220				2.04	1.21	0.80	0.51			
361LSC–65 341LSC–65	220					1.57	1.04	0.66	0.42	0.29	0.17
361LSC–99 341LSC–99	220								0.65	0.45	0.25
361LSC–160 341LSC–160	220								1.04	0.72	0.41

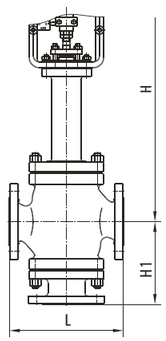
Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows.

HDT300 series three–way regulating valve dimensions and weight

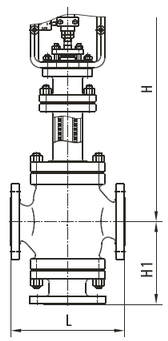
HDT300A Series, HDT300B Series, HDT300D Series three–way regulating valve dimensions and weight



HDT300A series
standard type



HDT300B series
extension type



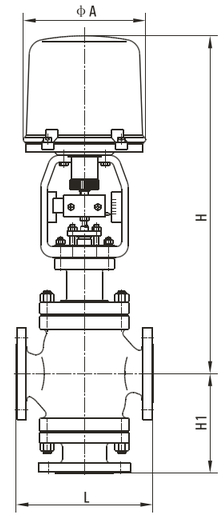
HDT300D series
bellows seal type

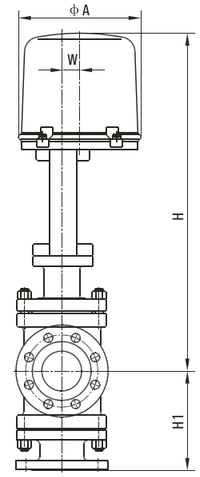
Standard, extended, bellows sealed dimensions **(Unit: mm)**

DN	L		H			H1			A	C	H2	Weight (kg)	
	PN16,40	PN63,100	Standard type	Extended type	Bellows type	1.6MPa	4.0MPa	6.3MPa				PN16	PN63
25	160	210	480	580	580	121	121	160	282	220	180	22	26
32	180	220	500	650	650	130	130	170	308	220	180	25	30
40	200	251	500	650	650	140	140	180	308	220	180	26	35
50	230	286	505	655	655	153	153	200	308	220	180	28	37
65	290	311	650	800	800	200	200	230	394	270	240	50	60
80	310	337	650	800	800	210	210	250	394	270	240	56	68
100	350	394	668	818	818	240	240	285	394	270	240	63	88
125	400	460	778	928	928	260	260	310	498	320	310	70	100
150	480	508	852	1002	1002	320	320	430	498	320	310	80	125
200	600	610	886	1036	1036	380	380	480	498	320	310	95	140

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. PN16, PN40 structure length standard is DIN 3202; PN63, PN100 structure length standard is ISA 75.03;
3. We can customize the production of valve products suitable for various severe conditions according to the requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
4. The handwheel mechanism is a non–standard valve accessory, which can be selected according to customer requirements.

HDT300 series electric three-way regulating valve dimensions and weight





Dimensions of electric three-way regulating valve **(Unit: mm)**

DN	L	H	H1	A	W	Actuator model	Weight (kg)
25	160	603	121	225	28	361LSA–20	22
32	180	927	130	255	28	361LSB–30	25
40	200	927	140	255	45	361LSB–30	26
50	230	932	153	255	45	361LSB–30	28
65	290	1132	200	310	45	361LSB–50 361LSC–65	50
80	310	1132	210	310	60	361LSB–50 361LSC–65	56
100	350	1150	240	310	60	361LSB–50 361LSC–65	63
125	400	1280	260	310	60	361LSC–65 361LSC–99	70
150	480	1354	320	310	60	361LSC–65 361LSC–99	80
200	600	1388	380	310	60	361LSC–65 361LSC–99	95

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. The structure length standard is DIN 3202;
3. We can customize the production of valve products suitable for various severe conditions according to the requirements. If the customer has no special requirements, product will be supplied according to the standard configuration;
4. Various brands of electric (intelligent) actuators can be selected according to customer requirements.

HDG100-F Series Fluorine lined Single Seat regulating valve

CANADA KINGSWAY FLOW CONTROL CO., LTD.

Overview

HDG100–F series fluorine lined single seat valve adopts top guide structure. The valve contact with the medium using a high–pressure injection molding process, lined with corrosion–resistant and aging–resistant polyperfluoroethylene propylene (referred to as F46) or a copolymer of tetrafluoroethylene and perfluoro (n–) propyl vinyl ether (referred to as PFA). Generally, polytetrafluoroethylene (PTFE) bellows are used for sealing, which has the unique advantages of resistance to strong corrosive medium such as acid (hydrochloric acid, sulfuric acid, hydrofluoric acid, etc.), alkali, and reliable sealing, widely used in the control systems of strong acid, strong alkali and other special medium in petroleum, chemical, metallurgy, medicine, light textile and other industries.

Technical data and features

Valve Body

Type:	Unbalanced plug type
Nominal Diameter:	DN20mm ~ 200mm (3/4 ", 8")
Flow Characteristics:	Equal percentage, linear, fast opening
Nominal Pressure:	PN1.6, 2.5 Mpa ANSI Class 150
Connection Type:	Flange
Flange Distance:	In accordance with GB12221–2005
Body and Upper Bonnet Material:	WCB lined F46 or PFA, CF8 lined F46 or PFA
Upper Bonnet Type:	Standard type: –29 ℃ ~ + 160 ℃
Packing:	Teflon V–shaped packing

Actuator part

Item \ Type	Pneumatic diaphragm type	Pneumatic piston type	Full electronic
Task	Regulating	Regulating	Regulating
Supply pressure or supply voltage	Air supply pressure (spring range) 140KPa(20KPa~100KPa) 250KPa(40KPa~200KPa) 280KPa(80KPa~240KPa) Air–to–open 400KPa(80KPa~240KPa) Air–to–close	Air supply pressure: 400 ~ 500KPa	See the selection samples of various manufacturers for details
Connector	Rc1/4	Rc1/4	
Positive action	Pressure increasing valve off (FO)		Valve stroke to close according to the signal input
negative action	Air pressure increasing valve on (FC)		Valve stroke to open according to the signal input
Allowable ambient temperature	–10℃ ~ +70℃	–10℃~+55℃	See the selection samples of various manufacturers for details
Optional accessories	Valve positioner, air filter regulator, solenoid valve, limit switch, governor, speed increaser, handwheel mechanism, lock–up valve, etc.		

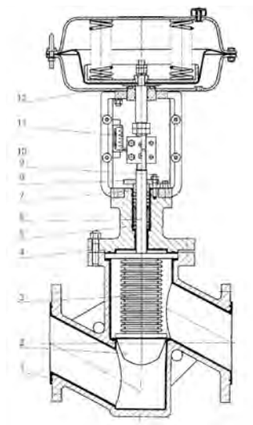
The main technical data

NO.	Item			Without positioner	With positioner
1	Intrinsic error			± 5%	± 1.5% FS
2	Hysteresis error			3%	1% FS
3	Dead zone			3%	0.4% FS
4	deviation of the ends (%)	Air open	Starting point	± 2.5%	± 1% FS
			Ending point	± 5%	± 1% FS
		Air close	Starting point	± 5%	± 1% FS
			Ending point	± 2.5%	± 1% FS
5	Deviation of rated stroke (%)			± 2.5%	± 2.5% FS

Special requirements

Special inspection of body part	Flow characteristics inspection, material inspection (test report)
Body part cleaning	Cleanliness requirements, oil ban, water removal treatment
Special specifications of body and actuator	Sand-proof and dust-proof type, salt-proof type, cold area, tropical area, copper ban, special air piping and special air joint, vacuum working conditions, bolts and nuts in contact with the atmosphere are made of stainless steel, specified coating

HDG100–F series fluorine lined single seat regulating valve structure diagram



1、Fluorine lined valve body
2、Fluorine lined plug
3、PTFE bellows
4、Fluorine-lined bonnet
5、Packing
6、Stem
7、Packing nails
8、Packing flange
9、Packing bolts
10、Packing nut
11、Clip indication plate
12、Pneumatic actuator

Kv value and rated stroke of small flow valve

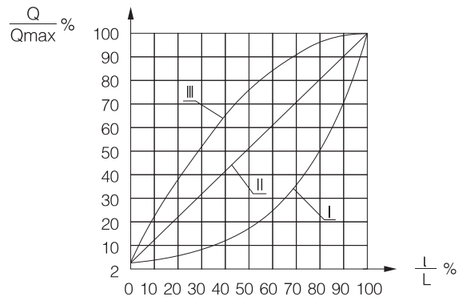
Nominal diameter DN(mm)	20	←									→
	25	←									→
Rated flow coefficient CV		0.10	0.16	0.25	0.40	0.63	1.0	1.6	2.5	4.0	6.3	1.0
Straight line		*	*	*	△	△	△	△	△	△	△	△
Equal percentage				*	△	△	△	△	△	△	△	△
Rated stroke		10									16	

Note: 1. * and △ indicate the range of the flow coefficient of the valve;
2. The symbol △ indicates that the flow characteristic curve of the valve conforms to GB / T4213.

Rated Kv value and rated stroke

Nominal diameter DN(mm)	Plug size dg dg(mm)	Rated Kv		Stroke (mm)
		Equal ratio	Straight line	
32	20	5	5	16
	25	8	8	16
	32	12	12	25
40	25	8	5	16
	32	12	12	25
	40	20	20	25
50	32	12	12	25
	40	20	20	25
	50	32	32	25
65	40	20	20	25
	50	32	32	25
	65	50	50	40
80	50	32	32	25
	65	50	50	40
	80	70	70	40
100	65	50	50	40
	80	70	70	40
	100	100	100	40
125	80	70	70	40
	100	100	100	40
	125	200	200	60
150	100	100	100	40
	125	200	200	60
	150	240	240	60
200	125	200	200	60
	150	240	240	60
	200	400	400	60

Flow characteristics



Ⅰ： Equal percentage
Ⅱ： Straight line
Ⅲ： Fast opening

Characteristic \ Q/Qmax \ l/L	0	10	20	30	40	50	60	70	80	90	100
Straight line	3.3	13.1	22.7	32.4	42.0	51.5	61.3	70.9	50.6	90.1	100
Equal percentage	3.3	4.6	6.5	9.3	12.9	18.2	25.6	36.1	50.8	70.9	100
Fast opening	3.3	21.7	38.1	52.6	65.2	75.8	84.5	91.3	96.1	99	100

Maximum allowable differential pressure

Pneumatic diaphragm type allowable differential pressure table

Small flow rate (Kv≤4.0) **(Unit: MPa)**

Actuator	Spring range KPa	Air source pressure MPa	With/Without positioner	Rated Kv						
				⩽0.25	0.40	0.63	1.0	1.6	2.5	4.0
PZMA–3	40～200	0.25	With	2.0	2.0	2.0	2.0	2.0	2.0	2.0
PZMB–3	40～200	0.25	With	2.0	2.0	2.0	2.0	2.0	2.0	2.0

Air-open (positive acting) allowable differential pressure table **(Unit: MPa)**

Actuator	Spring range KPa	Air source pressure MPa	With/Without positioner	Seat diamete DN										
				20	25	32	40	50	65	80	100	125	150	200
PZMA–4	20–100	0.14	Without	1.20	0.76									
			With	2.00	1.78									
	40–200	0.25	With	2.00	2.00									
	80–240	0.4	With	2.00	2.00									
PZMA–5	20–100	0.14	Without			0.62	0.39	0.25						
			With			1.44	0.92	0.59						
	40–200	0.25	With			1.85	1.18	0.76						
	80–240	0.4	With			2.00	2.00	1.42						
PZMA–6	20–100	0.14	Without						0.23	0.15	0.10			
			With						0.54	0.36	0.23			
	40–200	0.25	With						0.69	0.46	0.29			
	80–240	0.4	With						1.30	0.86	0.55			
PZMA–7	20–100	0.14	Without									0.11	0.08	0.04
			With									0.25	0.17	0.10
	40–200	0.25	With									0.32	0.22	0.13
	80–240	0.4	With									0.60	0.42	0.23

Pneumatic diaphragm type allowable differential pressure table

Air-open (negative action) allowable differential pressure table **(Unit: Mpa)**

Actuator	Spring range KPa	Air source pressure MPa	With/Without positioner	Seat diamete DN										
				20	25	32	40	50	65	80	100	125	150	200
PZMA–4	20–100	0.14	With/ Without	1.19	0.76									
	40–200	0.25	With	2.00	1.78									
	80–240	0.28	With	2.00	2.00									
PZMA–5	20–100	0.14	With/ Without			0.62	0.39	0.25						
	40–200	0.25	With			1.44	0.92	0.59						
	80–240	0.28	With			2.00	1.97	1.26						
PZMA–6	20–100	0.14	With/ Without						0.23	0.15	0.10			
	40–200	0.25	With						0.54	0.36	0.23			
	80–240	0.28	With						1.15	0.76	0.49			
PZMA–7	20–100	0.14	With/ Without									0.11	0.07	0.04
	40–200	0.25	With									0.25	0.17	0.10
	80–240	0.28	With									0.54	0.37	0.21

Pneumatic piston type allowable differential pressure table **(Unit: Mpa)**

Actuator specifications	Spring range KPa	Air source pressure MPa	Seat diamete DN					
			65	80	100	125	150	200
150	–	0.4	2.00	1.34				
200	–	0.4	3.00	2.00	1.56			
250	–	0.4			2.46	1.55	1.08	0.60
200	125~375	0.5	1.09	0.72				
250	125~375	0.5	1.75	1 .16	0.74			
300	125~375	0.5			1.08	0.68		
350	125~375	0.5				0.94	0.65	0.36

Notes on allowable differential pressure table

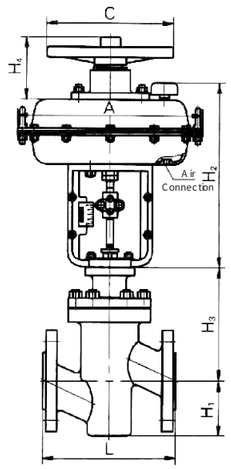
- The packing material is PTFE;
- The flow direction of the medium is opposite to the direction in which the plug is closed.

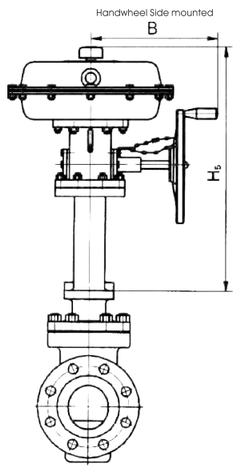
Connection size and standard

Connection type	Connecting flange
Flange standard	PN1.6MPa steel flange according to GB / T9113.1 PN4.0MPa steel pipe flange according to GB / T9113.1
Sealing face type	(RF)
Flange face distance	GB/T12221–2005
Actuator air signal connector	Rc1/4

HDG100–F series fluorine plastic single seat regulating valve dimensions

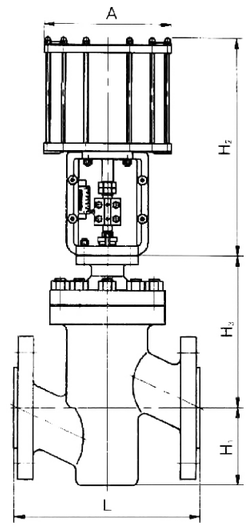
Dimensions of pneumatic diaphragm type

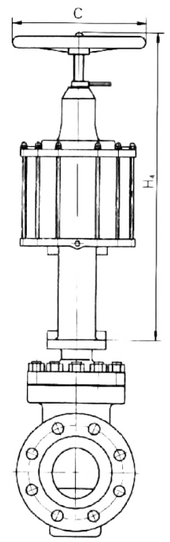




DN	L	H1	H3	Actuator					
				A	C	H2	H4	H5	B
20	180	155	65	232	220	255	180	–	–
				282	220	258	180	305	260
25	185	165	70	232	220	255	180	–	–
				282	220	258	180	305	260
32	200	165	80	282	220	258	180	305	260
				308	220	280	180	305	260
40	220	225	80	282	220	258	180	305	260
				308	220	280	180	305	260
50	250	225	88	308	220	280	180	305	260
65	275	300	102	308	220	280	180	305	260
				394	270	360	236	580	305
80	300	300	140	308	220	280	180	305	260
				394	270	360	236	580	305
100	350	300	170	394	270	360	236	580	305
125	400	400	250	394	270	360	236	580	305
				498	320	435	310	675	330
150	486	400	260	394	270	360	236	580	305
				498	320	435	310	675	330
200	600	405	290	498	320	435	310	675	330

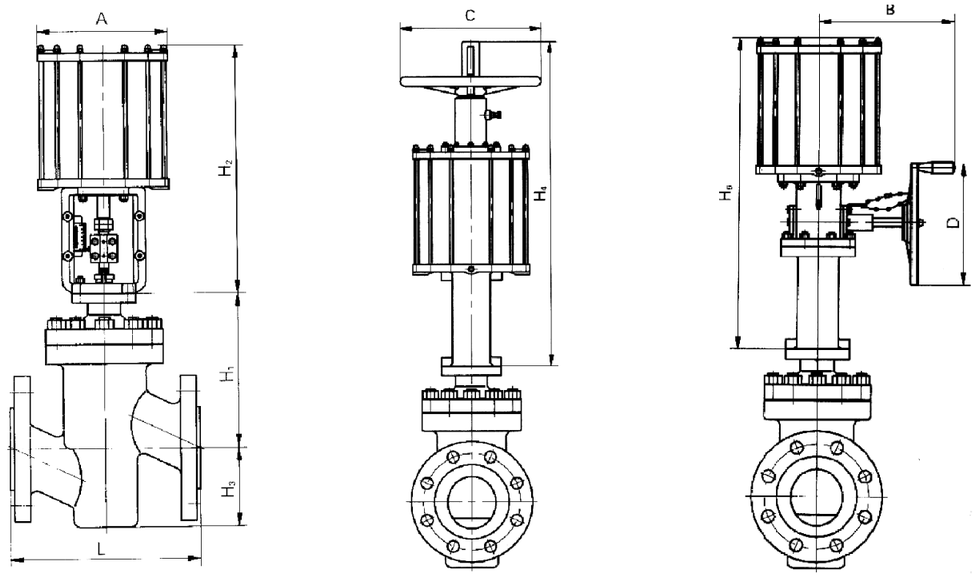
Double acting cylinder type regulating valve





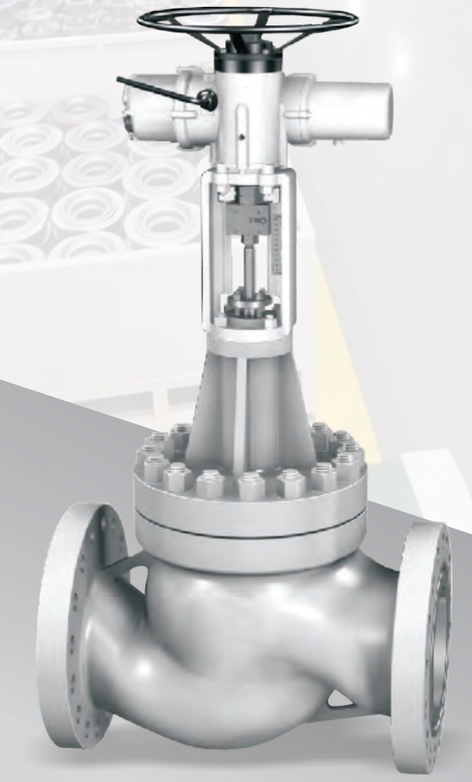
DN	L	H1	H3	Actuator			
				A	C	H2	H4
65	275	300	102	210	270	480	780
				280	270	490	790
80	300	300	140	210	270	480	790
				280	270	480	790
100	350	300	170	280	270	490	790
125	400	400	250	320	320	590	800
				354	320	628	988
150	486	400	260	325	320	590	950
200	600	405	290	325	320	590	950

Single acting cylinder type regulating valve



DN	L	H1	H3	Actuator						
				A	C	H2	H4	H5	B	D
65	275	300	102	280	270	535	772	700	250	270
				325	270	565	502	730	250	270
80	300	300	140	280	270	535	772	700	250	270
				325	270	565	802	730	250	270
100	350	300	170	325	270	565	802	730	250	270
125	400	400	250	385	320	635	870	835	329	320
				430	320	695	1045	894	349	320
150	486	400	260	430	500	695	1045	894	349	320
200	600	405	290	430	500	695	1045	894	349	320

HDG500 Series Multistage Pressure Drop Cage Regulating Valve



CANADA KINGSWAY FLOW CONTROL CO., LTD.

Overview

HDG500 series multi–stage pressure drop cage regulating valve is mainly designed to reduce the noise of compressible fluid, reduce and prevent cavitation. In order to adapt to the diverting and expansion of gas throttling, there are many symmetrical small holes on cage to increase the resistance of the medium, suitable for the occasion with high–pressure differential flash cavitation; Because the valve plug uses a fluid pressure balanced structure, only a small operating force is needed to achieve stable regulating;
The throttle unit of HDG500 series multi–stage pressure drop cage regulating valve is perforated (jet type). It has multi–stage pressure reduction, has the function of reducing noise and reducing resonance, and can be used for special low–noise application;
This series of regulating valve can be easily made into special structures such as bellows sealing type and extended upper bonnet.

Technical data and features

Valve Body

Type:	Fluid pressure balanced plug
Nominal Diameter:	20 ~ 400 mm (3/4 "~ 16")
Plug Type:	Double sealing face balanced type
Flow Characteristics:tch	Correction percentage, correction linear, switch
Nominal Pressure:	PN 4.0, 6.3, 10.0, 16.0MPa
	ANSI Class 300, 600, 900;
	JIS 20K, 30K, 40K
Connection Type:	Flange (RF FM concave RTJ) Threaded
	Welding [Socket welding SW (Dn≤50) Butt welding BW (DN≥65)]
Flange Standard:	ASME B16.5–2013
	DIN EN 1092–1–2008
	GB/T 9113–2010
	HG/T 20615–2019
	HG/T20592–2019
Face to Face Distance:	GB / T12221–2005
Body and Bonnet Material:	WCB WC6 LCB CF8 CF8M
	CF3 CF3M Hastelloy C

Trim Material:	0Cr18Ni9 (304); 0Cr17Ni12Mo2 (316)
	00Cr17Ni14Mo2 (316L)
	0Cr17Ni4Cu4Nb (17–4PH)
	Above + Stellite (hard faced)
Upper Bonnet Type:	HDG500A series standard type –30~200℃
	HDG500B series extended type –60~560℃
	HDG500C series low temperature type –196~–45℃
	HDG500D series bellows seal type
Structure Form:	HDG500 series multi–stage pressure drop cage regulating valve
Packing:	PTFE V–packing
	Reinforced PTFE packing
	Expanded graphite packing
Others:	When the valve is a metal hard seal and the seat leakage rate is required to reach Grade IV.

Actuator part

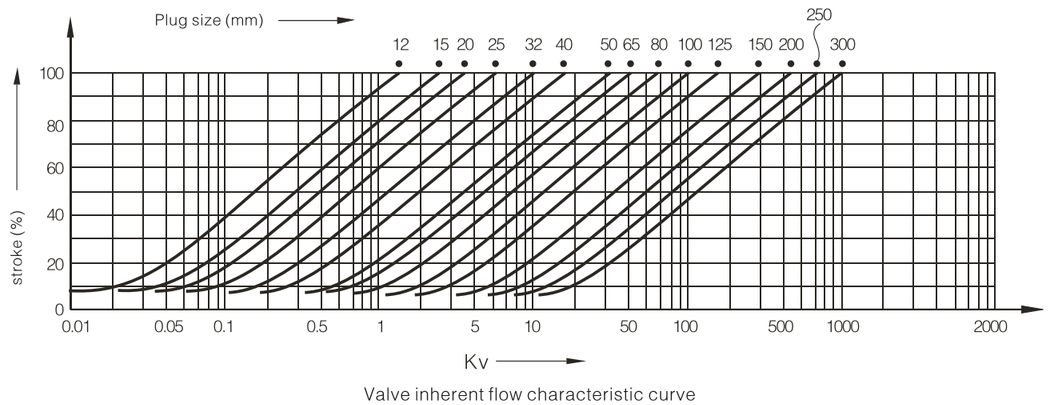
Item \ Type		Pneumatic diaphragm type	Pneumatic piston type	Full electronic	Electric
Task		Regulating, On/Off	Regulating, On/Off	Regulating	Switch
Spring range		20–100;40–200; 80–240KPa	–	–	–
Air source/power		0.14, 0.25, 0.4MPa	0.4~0.6MPa	380V · AC 50Hz 220V · AC 50Hz	380V · AC 50Hz 220V · AC 50Hz
Connector		Rc1/4", Rc3/8"	Rc1/4",Rc1/2", Rc3/8"	Wiring: 2–G1/2 "	Wiring: 2–G1/2 "
Connection type of action		Air open, air close	Air open, air close, double acting	Power on, power off	Power on, power off
Intrinsic error	General type	± 1.5% Fs (With positioner)		± 1.0% Fs	–
	Special type	± 4.0% Fs (With positioner)		± 2.5% Fs	–
Hysteresis error	General type	≤1.5% Fs (With positioner)		≤1.0% Fs	–
	Special type	≤3.0% Fs (With positioner)		≤2.0% Fs	–
Allowable ambient temperature		–10 ~ +70℃		–10 ~ +60℃	
Optional valve accessories		Electrical valve positioner, air filter regulator, solenoid valve, limit switch, lock–up valve, manual device		Overload unit	Inching switch for position detecting, potentiometer

The main technical data

Nominal diameter		20	25	32	40	50	65	80	100	125	150	200	250	300
Rated Kv	Linear	4.4	6.9	11	17.6	27.5	44	69	110	176	275	440	690	1100
	Equal percentage	4	6.3	10	16	25	40	63	100	160	250	400	630	1000
Rated stroke L (mm)		16		25			40			60			100	
Diaphragm effective area (pneumatic valve) Ae(cm^2)		280		400			600			1000			1600	
Inherent flow characteristics		Corrected linearity, corrected equal percentage												
Inherent regulating ratio		50:1												
Allowable leakage		Hard seal: Class Ⅲ (10^{-3} × Kv)												

Temperature and pressure range of valve body and bonnet (see appendix)
Temperature and pressure range of valve trim and packing (see appendix)

Flow characteristics (percentage characteristics such as IEC standards)



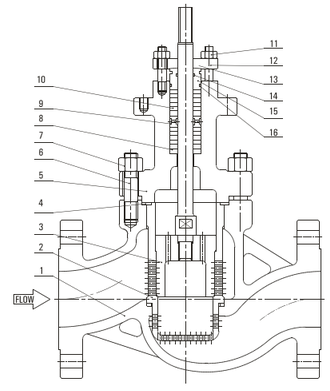
Valve inherent flow characteristic curve

Percentage of opening of flow characteristics and corresponding flow (R = 50)

Percentage of opening (I/L)% \ Corresponding flow (Q/Qmax)%	0	10	20	30	40	50	60	70	80	90	100
Linear	2	11.8	21.6	31.4	41.2	51	60.8	70.6	80.4	90.2	100
Equal percentage	2	3	4.37	6.5	9.6	14.1	20.9	30.9	45.7	67.6	100

HDG500 series standard internal structure diagram

HDG500 series multi-stage downward cage pressure regulator diagram



1、Body
2、Valve cage (porous sleeve)
3、Plug
4、Washers
5、Bonnet
6、Body stud
7、Hex nuts
8、Packing
9、Packing spacer
10、Packing
11、Hex nuts
12、Retainer studs
13、Packing flange
14、O-ring seal
15、Packing gland
16、O-ring seal

Maximum allowable differential pressure

Pneumatic diaphragm type actuator allowable differential pressure table

Air close (positive-acting) metal seal allowable differential pressure table **(Unit: Mpa)**

Actuator	Spring range KPa	Air source pressure MPa	Seat diamete DN											
			20	25	32	40	50	65	80	100	125	150	200	250	300
PZMA-4	20-100	0.14	3.81	3.18											
	40-200	0.25	5.41	4.50											
	80-240	0.40	10.0	9.81											
PZMA-5	20-100	0.14			3.40	2.80	2.29								
	40-200	0.25			4.82	3.96	3.24								
	80-240	0.40			10.0	8.63	7.06								
PZMA-6	20-100	0.14						2.78	2.29	1.85					
	40-200	0.25						3.94	3.24	2.62					
	80-240	0.40						8.58	7.06	5.72					
PZMA-7	20-100	0.14									2.58	2.16	1.63		
	40-200	0.25									3.66	3.07	2.32		
	80-240	0.40									7.97	6.68	5.05		
PZMA-8	20-100	0.14												2.42	2.02
	40-200	0.25												3.02	2.52
	80-240	0.40												6.04	5.05

Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows.

Pneumatic diaphragm type actuator allowable differential pressure table

Air-open (negative action) metal seal allowable differential pressure table **(Unit: MPa)**

Actuator	Spring range KPa	Air source pressure MPa	Seat diamete DN												
			20	25	32	40	50	65	80	100	125	150	200	250	300
PZMB–4	20–100	0.14	1.27	1.06											
	40–200	0.25	3.81	3.18											
	80–240	0.28	10.0	8.48											
PZMB–5	20–100	0.14			1.13	0.93	0.76								
	40–200	0.25			3.40	2.80	2.29								
	80–240	0.28			9.08	7.46	6.11								
PZMB–6	20–100	0.14						0.92	0.76	0.61					
	40–200	0.25						2.78	2.29	1.85					
	80–240	0.28						7.40	6.11	4.94					
PZMB–7	20–100	0.14									0.86	0.72	0.54		
	40–200	0.25									2.58	2.16	1.63		
	80–240	0.28									6.89	5.78	4.37		
PZMB–8	20–100	0.14												2.42	2.02
	40–200	0.25												3.02	2.52
	80–240	0.28												6.04	5.05

Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows.

Fully electronic and electric actuator allowable differential pressure table

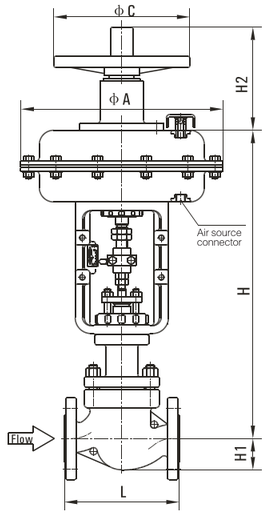
Power on / off metal seal allowable differential pressure table **(Unit: MPa)**

Actuator	Power V.AC	Seat diamete DN											
		20	25	32	40	50	65	80	100	125	150	200	250	300
361LSA–20 341LSA–20	220	7.38	6.07	4.85	3.95									
361LSB–30 341LSB–30	220			7.28	5.93	4.81								
361LSB–50 341LSB–50	220					8.01	5.24	5.12	4.12					
361LSC–65 341LSC–65	220						8.12	6.65	5.36	4.31	3.61	2.72		
361LSC–99 341LSC–99	220									6.63	5.55	4.18	3.36	2.80
361LSC–160 341LSC–160	220									10.0	8.88	6.69	5.37	4.48

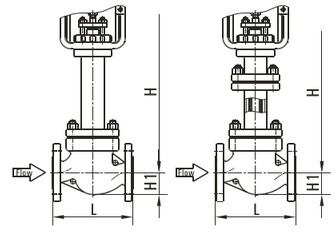
Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows.

HDG500 series multistage pressure drop cage regulating valve dimensions and weight

HDG500A Series, HDG500B Series, HDG500D series multistage pressure drop cage regulating valve dimensions and weight

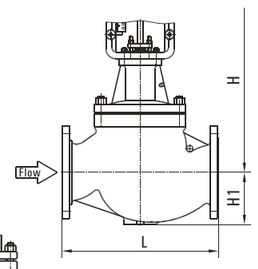


HDG500A series standard type

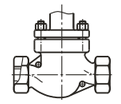


HDG500B series extension type

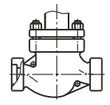
HDG500D series bellows seal type



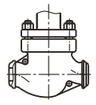
DN≥125 diameter valve outline drawing



Threaded connection



Socket welding connection



Butt welding connection

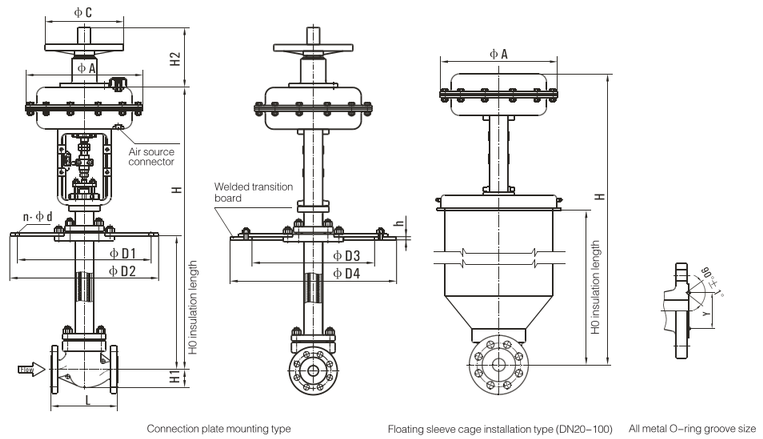
These three connection sizes are available upon request

Standard, extended, bellows sealed dimensions **(Unit: mm)**

DN	L		H			H1	A	C	H2	Weight (kg)	
	PN16,40	PN63,100	Standard type	Extended type	Bellows type					PN16	PN63
20	150	206	430	530	530	42	282	220	180	21	24
25	160	210	430	530	530	48	282	220	180	22	25
32	180	220	450	600	600	56	308	220	180	24	30
40	200	251	450	600	600	64	308	220	180	32	42
50	230	286	455	605	605	76	308	220	180	38	52
65	290	311	600	750	750	85	394	270	240	62	78
80	310	337	600	750	750	100	394	270	240	67	82
100	350	394	618	768	768	110	394	270	240	82	102
125	400	460	728	878	878	126	498	320	310	132	170
150	480	508	802	952	952	160	498	320	310	160	190
200	600	610	836	986	986	202	498	320	310	245	285
250	730	752	1005	1155	1155	270	618	320	310	345	398
300	850	819	1085	1335	1335	290	618	320	310	465	505

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. PN16, PN40 structure length standard is DIN 3202. PN63, PN100 structure length standard is ISA 75.03;
3. We can customize the production of valve products suitable for various severe conditions according to the requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
4. The handwheel is a non–standard valve accessory, which can be selected according to customer requirements.

HDG500C series low temperature multistage pressure drop seve regulating valve dimensions and weight



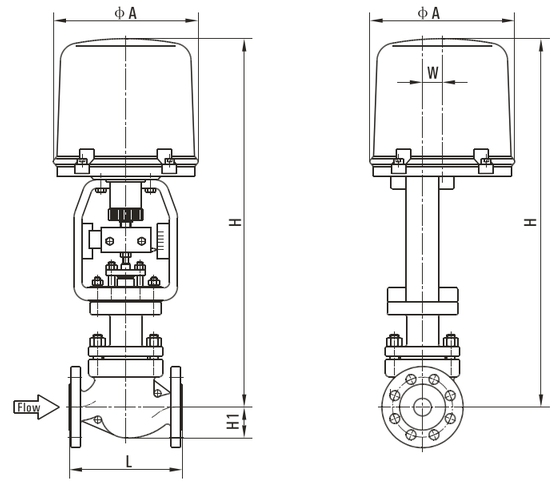
Connection plate mounting type　　Floating sleeve cage installation type (DN20–100)　　All metal O–ring groove size

Low–temperature type dimensions　　(Unit: mm)

DN	L		H0						D1	D2	D3	D4	n–d	h	H1	A	C	H2	Y	Weight (kg)	
	PN16 PN40	PN63 PN100	500	600	700	800	900	1000												PN16	PN63
			H																		
20	150	206	930	1030	1130	1230	1330	1430	260	290	230	310	8–14	15	42	282	220	180	45	40	46
25	160	210	930	1030	1130	1230	1330	1430	260	290	230	310	8–14	15	48	282	220	180	45	48	55
32	180	220	950	1050	1150	1250	1350	1450	285	315	250	335	8–14	15	56	308	220	180	60	52	60
40	200	251	950	1050	1150	1250	1350	1450	305	335	270	355	8–16	18	64	308	220	180	65	60	69
50	230	286	955	1055	1155	1255	1355	1455	340	370	305	390	8–16	18	76	308	220	180	75	68	78
65	290	311	1100	1200	1300	1400	1500	1600	460	490	430	520	10–16	18	85	394	270	240	90	90	104
80	310	337	1100	1200	1300	1400	1500	1600	525	555	490	585	10–16	20	100	394	270	240	104	105	121
100	350	394	1118	1218	1318	1418	1518	1618	590	630	556	600	12–18	20	110	394	270	240	135	143	164
125	400	460	1228	1328	1428	1528	1628	1728	700	740	665	770	14–18	20	126	498	320	310	165	210	242
150	480	508	1302	1402	1502	1602	1702	1802	700	740	665	770	16–18	20	160	498	320	310	195	282	324
200	600	610	1336	1436	1536	1636	1736	1836	805	845	765	890	18–18	20	202	498	320	310	245	315	362

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. PN16, PN40 structure length standard is DIN 3202. PN63, PN100 structure length standard is ISA 75.03;
3. We can customize the production of valve products suitable for various severe conditions according to the requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
4. The insulation length H0 can be customized according to the medium temperature and the requirements. The flange of the low temperature regulating valve can be sealed with a metal O–ring (LF2), and an aluminum shoulder ring (LF4) can be used according to customer requirements.
5. The hand wheel mechanism is a non–standard valve accessory, which can be selected according to customer requirements;
6. The welding transition plate is a non–standard valve accessory, which can be selected according to customer requirements.

HDG500 series electric multistage pressure drop cage regulating valve dimensions and weight



Dimensions of electric multi–stage pressure drop cage regulating valve　　(Unit: mm)

DN	L	H	H1	A	W	Actuator model	Weight (kg)
20	150	518	42	225	28	361LSA–20	21
25	160	518	48	225	28	361LSA–20	22
32	180	695	56	255	28	361LSB–30	24
40	200	695	64	255	45	361LSB–30	32
50	230	700	76	255	45	361LSB–30	38
65	290	986	85	310	45	361LSB–50 361LSC–65	62
80	310	986	100	310	60	361LSB–50 361LSC–65	67
100	350	1004	110	310	60	361LSB–50 361LSC–65	82
125	400	1114	126	310	60	361LSC–65 361LSC–99	132
150	480	1188	160	310	60	361LSC–65 361LSC–99	160
200	600	1222	202	310	60	361LSC–65 361LSC–99	245
250	730	1222	270	310	60	361LSC–99 361LSC–160	345
300	850	1400	290	310	60	361LSC–99 361LSC–160	465

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. The structure length standard is DIN 3202;
3. We can customize the production of valve products suitable for various severe conditions according to the requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
4. Various brands of electric (intelligent) actuators can be selected according to customer requirements.

HDA500 Series Multistage Pressure Drop Angle Regulating Valve

CANADA KINGSWAY FLOW CONTROL CO., LTD.

Overview

HDA500 series multi-stage pressure drop angle regulating valve is suitable for three regulating control of high temperature and high pressure fluid.

HDA500 series multi-stage pressure drop angle regulating valve adopts multi-stage throttling, which completely controls the flow rate of fluid with high pressure difference through the multi-stage throttling of the valve core, and can also effectively prevent cavitation, steam, and can also effectively prevent vibration and noise and stable flow of fluid. This series of regulating valve can be easily made into special structures such as bellows sealing type, steam jacket type and extended upper bonnet.

Technical data and features

Valve Body

Type:	Fluid pressure balanced plug
Nominal Diameter:	15~100mm (1/2"~4")
Plug Type:	Double sealing face balanced type
Flow Characteristics:	Correction percentage, correction linear, switch
Nominal Pressure:	PN10.0, 16.0, 22.0, 32.0MPa
	ANSI Class 900, 1500, 2500;
Connection Type:	Flange (RTJ) Threaded
	Welding [Socket welding SW (Dn ≤ 50) Butt welding BW (DN ≥ 65)]
Flange Standard:	ASME B16.5-2013
	DIN EN 1092-1-2008
	GB/T 9113-2010
	HG/T 20615-2019
	HG/T 20592-2019
Flange End Face Distance:	See external dimensions of angle regulating valve
Body and Bonnet Material:	20, 30, 35, 40, 35CrMo, 0Cr18Ni9,
	0Cr17Ni12Mo2
Trim Material:	0Cr18Ni9 (304); 0Cr17Ni12Mo2 (316)
	00Cr17Ni14Mo2 (316L)
	0Cr17Ni4Cu4Nb (17-4PH)
	Above + Stellite

Upper Bonnet Type:	HDA500A series standard type –30~200℃
	HDA500B series extended type –60~560℃
Structure:	HDA500 series multi–stage pressure drop angle regulating valve
Packing:	PTFE V–packing
	Reinforced PTFE packing
	Expanded graphite packing
Others:	When the valve is a metal hard seal and the valve seat leakage
	rate is required to reach V, please specify in the contract

Actuator part

Item \ Type		Pneumatic diaphragm type	Pneumatic piston type	Full electronic	Electric
Task		Regulating, On/Off	Regulating, On/Off	Regulating	Switch
Spring range		20–100;40–200; 80–240KPa	–	–	–
Air source/power		0.14, 0.25, 0.4MPa	0.4~0.6MPa	220V · AC 50Hz 380V · AC 50Hz	220V · AC 50Hz 380V · AC 50Hz
Connector		Rc1/4", Rc3/8"	Rc1/4",Rc1/2", Rc3/8"	Wiring: 2–G1/2 "	Wiring: 2–G1/2 "
Connection type of action		Air open, air close	Air open, air close, double acting	Power on, power off	Power on, power off
Intrinsic error	General type	± 1.5% Fs (With positioner)		± 1.0% Fs	–
	Special type	± 4.0% Fs (With positioner)		± 2.5% Fs	–
Hysteresis error	General type	⩽1.5% Fs (With positioner)		⩽1.0% Fs	–
	Special type	⩽3.0% Fs (With positioner)		⩽2.0% Fs	–
Allowable ambient temperature		–10 ~ +70℃		–10 ~ +60℃	
Optional valve accessories		Electrical valve positioner, air filter regulator, solenoid valve, limit switch, lock–up valve, manual device		Overload unit	Inching switch for position detecting, potentiometer

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HDA500 Series Multistage Pressure Drop Angle Regulating Valve

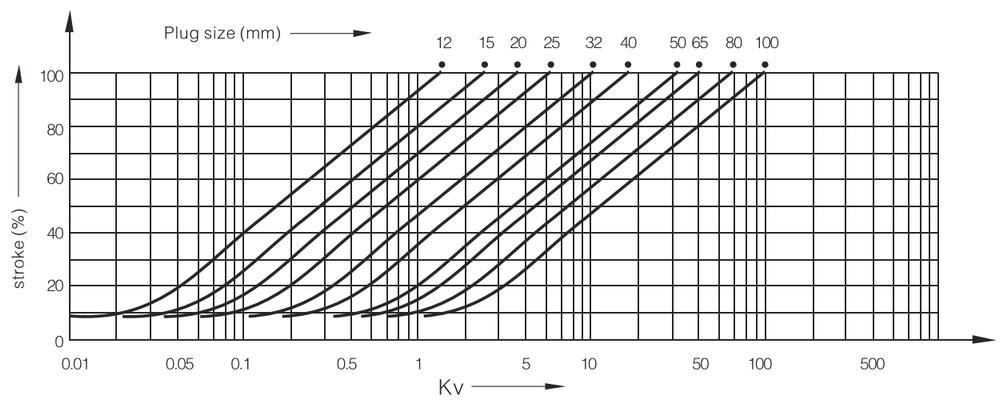
The main technical data

HDA500 series standard data

Nominal diameter		20	25	32	40	50	65	80	100
Rated Kv	Linear	4.4	6.9	11	17.6	27.5	44	69	110
	Equal percentage	4	6.3	10	16	25	40	63	100
Rated stroke L (mm)		16		25			40		
Diaphragm effective area (pneumatic valve) Ae(cm^2)		280		400			600		
Inherent flow characteristics		Corrected linearity, corrected equal percentage							
Inherent regulating ratio		50:1							
Allowable leakage		Hard seal: Class III (10^{-3} × Kv) (see GB / T4213–2008)							

Temperature and pressure range of valve body and bonnet (see appendix)
Temperature and pressure range of valve trim and packing (see appendix)

Flow characteristics (percentage characteristics such as IEC standards)



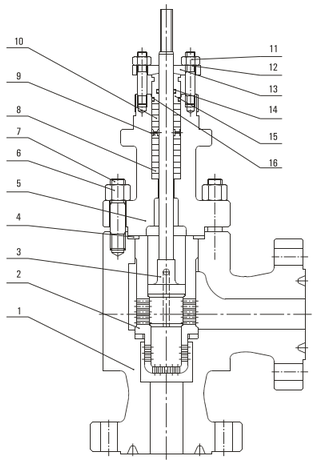
Valve inherent flow characteristic curve

Percentage of opening of flow characteristics and corresponding flow (R = 50)

Corresponding flow (Q/Qmax)% \ Percentage of opening (l/L)%	0	10	20	30	40	50	60	70	80	90	100
Linear	2	11.8	21.6	31.4	41.2	51	60.8	70.6	80.4	90.2	100
Equal percentage	2	3	4.37	6.5	9.6	14.1	20.9	30.9	45.7	67.6	100

HDA500 series multistage pressure drop angle regulating valve diagram

HDA500 series multistage pressure drop angle regulating valve diagram



1、Body
2、Multi–stage pressure drop sleeve
3、Plug
4、Washers
5、Bonnet
6、Hex nuts
7、Body stud
8、Packing
9、Packing spacer
10、Packing
11、Hex nuts
12、Retainer studs
13、Packing flange
14、O–ring seal
15、Packing gland
16、O–ring seal

Maximum allowable differential pressure

Pneumatic diaphragm type actuator allowable differential pressure table

Air–closed (positive–acting) metal seal allowable differential pressure table **(Unit: MPa)**

Actuator	Spring range KPa	Air source pressure MPa	Seat diamete DN										
			20	25	32	40	50	65	80	100	125	150	200
PZMA–4	40–200	0.25	5.41	4.50									
	80–240	0.40	10.0	9.81									
PZMA–5	40–200	0.25			4.82	3.96	3.24						
	80–240	0.40			10.0	8.63	7.06						
PZMA–6	40–200	0.25						3.94	3.24	2.62			
	80–240	0.40						8.58	7.06	5.72			
PZMA–7	40–200	0.25									3.66	3.07	2.32
	80–240	0.40									7.97	6.68	5.05

Note: The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level.

Pneumatic diaphragm type actuator allowable differential pressure table

Air-open (negative action) metal seal allowable differential pressure table **(Unit: MPa)**

Actuator	Spring range KPa	Air source pressure MPa	Seat diamete DN										
			20	25	32	40	50	65	80	100	125	150	200
PZMB–4	40–200	0.25	3.81	3.18									
	80–240	0.28	10.0	8.48									
PZMB–5	40–200	0.25			3.40	2.80	2.29						
	80–240	0.28			9.08	7.46	6.11						
PZMB–6	40–200	0.25						2.78	2.29	1.85			
	80–240	0.28						7.40	6.11	4.94			
PZMB–7	40–200	0.25									2.58	2.16	1.63
	80–240	0.28									6.89	5.78	4.37

Note: The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level.

Fully electronic and electric actuator allowable differential pressure table

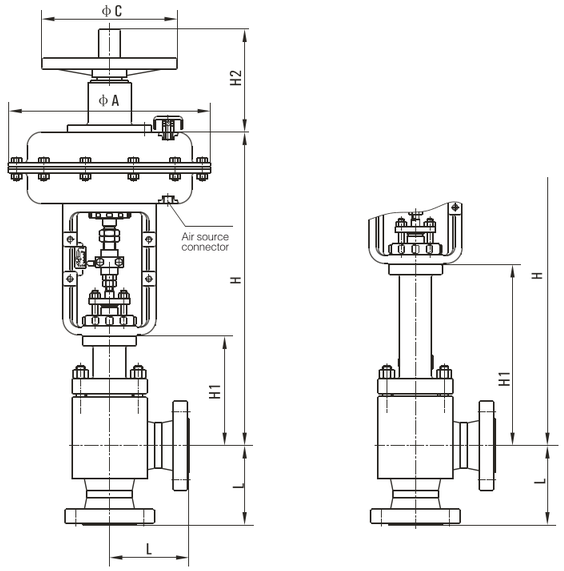
Power on / off metal seal allowable differential pressure table **(Unit: MPa)**

Actuator	Power V.AC	Seat diamete DN										
		20	25	32	40	50	65	80	100	125	150	200
361LSA–20 341LSA–20	220	7.38	6.07	4.85	3.95							
361LSB–30 341LSB–30	220			7.28	5.93	4.81						
361LSB–50 341LSB–50	220					8.01	5.24	5.12	4.12			
361LSC–65 341LSC–65	220						8.12	6.65	5.36	4.31	3.61	2.72
361LSC–99 341LSC–99	220									6.63	5.55	4.18
361LSC–160 341LSC–160	220									10.0	8.88	6.69

Note: The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level.

HDA500 series multistage pressure drop angle regulating valve dimensions and weight

HDA500A series, HDA500B series multistage pressure drop angle regulating valve dimensions and weight



HDA500A series standard type

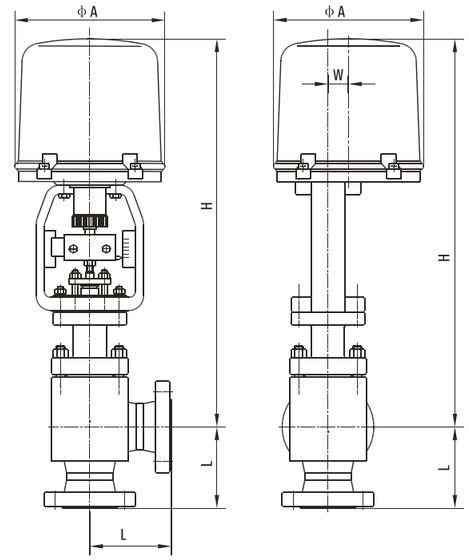
HDA500B series extension type

Standard and extended dimensions (Unit: mm)

DN	L	H		H1		A	C	H2	Weight (kg)	
		Standard type	Extended type	Standard type	Extended type				Standard type	High temperature type
20	160	500	600	215	315	282	220	180	28	32
25	160	500	600	215	315	282	220	180	29	33
40	180	535	685	245	395	308	220	180	38	44
50	200	545	695	255	405	308	220	180	41	47
80	250	685	835	310	460	394	270	240	70	81
100	330	745	895	370	520	394	270	240	90	104

Note: 1. The data in the table are the standard configuration of 900Lb and 1500Lb. For data of different pressure ratings, please contact us.
2. PN16, PN40 structure length standard is DIN 3202. PN63, PN100 structure length standard is ISA 75.03;
3. We can customize the production of valve products suitable for various severe conditions according to customer requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
4. The handwheel mechanism is a non–standard valve accessory, which can be selected according to customer requirements.

HDA500 series electric multistage pressure drop angle regulating valve dimensions and weight



Dimensions of electric multistage pressure drop angle regulating valve (Unit: mm)

DN	L	H	A	W	Actuator model	Weight (kg)
20	160	570	225	28	361LSA–20	28
25	160	570	225	28	361LSA–20	29
40	180	620	255	45	361LSB–30	38
50	200	635	255	45	361LSB–30	41
80	250	768	310	60	361LSB–50 361LSC–65	70
100	330	872	310	60	361LSB–50 361LSC–65	90

Note: 1. The data in the table are the standard configuration of 900Lb and 1500Lb. For data of different pressure ratings, please contact us.
2. The structure length standard is DIN 3202;
3. We can customize the production of valve products suitable for various severe conditions according to customer requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
4. Various brands of electric (intelligent) actuators can be selected according to customer requirements.

HDA700 Series Low Temperature Angle Regulating Valve

CANADA KINGSWAY FLOW CONTROL CO., LTD.

Overview

HDA700 series low temperature angle regulating valve is used in low temperature and deep cold occasions. It adopts a long neck upper bonnet for heat insulation and is equipped with a multi–spring actuator. It has the advantages of compact overall structure, light weight and good stability. The valve body adopts precision casting angle structure, and the material is aluminum alloy, which has good low temperature resistance. The bellows seal ensures that the regulating valve does not leak out at low temperature. HDA700 series low temperature angle regulating valve is widely used in metallurgy, air separation, oxygen production, petroleum, chemical and other low temperature cryogenic occasions. It is especially suitable for accurate ensuring the process data of low temperature gases and fluids (such as liquid oxygen and liquid nitrogen) within a given value.

Technical data and features

Valve Body

Type:	Unbalanced plug
Nominal Diameter:	15 ~ 200 mm (1/2 "–8")
Plug Type:	Plunger
Flow Characteristics:	Equal percentage, linear, switch
Nominal Pressure:	PN 0.6, 1.0, 1.6, 2.5, 4.0, 6.3MPa ANSI Class 150, 300; JIS 10K, 20K
Connection Type:	Welding [butt welding BW]
Flange Standard:	None
Flange End Face Distance:	See outline dimensions of low temperature angle regulating valve
Installation:	Connection plate installation Floating cage installation type
Body and Bonnet Material:	LF4
Trim Material:	0Cr18Ni9 (304) 0Cr17Ni12Mo2 (316) 00Cr17Ni14Mo2 (316L) Above + Stellite (hard faced)
Upper Bonnet Type:	HDA700 series low temperature type –196~–60 ℃
Structure:	HDA700 series low temperature angle regulating valve
Packing:	PTFE V–packing Reinforced PTFE packing
Others:	When the valve is a metal hard seal and the valve seat leakage rate is required to reach V, please specify in the contract.

Actuator part

Item \ Type		Pneumatic diaphragm type	Pneumatic piston type
Task		Regulating, On/Off	Regulating, On/Off
Spring range		20–100;40–200;80–240KPa	–
Air source/power		0.14, 0.25, 0.4MPa	0.4~0.6MPa
Connector		Rc1/4", Rc3/8"	Rc1/4",Rc1/2", Rc3/8"
Connection type of action		Air open, air close	Air open, air close, double acting
Intrinsic error	General type	± 1.5% Fs (With positioner)	
	Special type	± 4.0% Fs (With positioner)	
Hysteresis error	General type	⩽1.5% Fs (With positioner)	
	Special type	⩽3.0% Fs (With positioner)	
Allowable ambient temperature		–10 ~ +70℃	
Optional valve accessories		Electrical valve positioner, air filter regulator, solenoid valve, limit switch, lock–up valve, manual device	

The main technical data

HDA700 series standard technical data

Nominal diameter		20	25	32	40	50	65	80	100	125	150	200
Rated Kv	Linear	6.9	11	17.6	27.5	44	69	110	176	275	440	690
	Equal percentage	6.3	10	16	25	40	63	100	160	250	400	630
Rated stroke L (mm)		16			25			40			60	
Diaphragm effective area (pneumatic valve) Ae(cm^2)		280			400			600			1000	
Inherent flow characteristics		Linear, equal percentage										
Inherent regulating ratio		50:1										
Allowable leakage		Hard seal: Grade IV (10^{-4} × Kv); Soft seal: Grade VI (See GB / T4213–2008)										

Temperature and pressure range of valve body and bonnet (see appendix)
Temperature and pressure range of valve trim and packing (see appendix)

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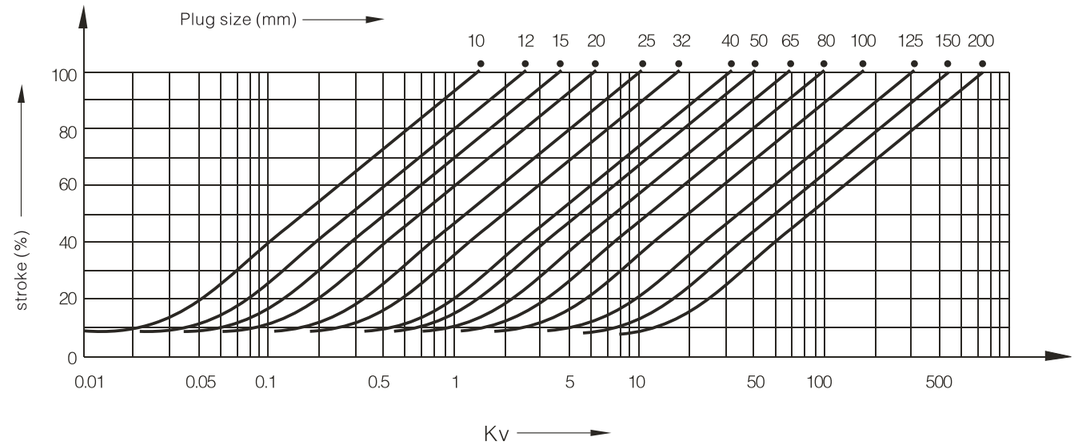
HDA700 Series Low Temperature Angle Regulating Valve

Flow characteristics (percentage characteristics such as IEC standards)



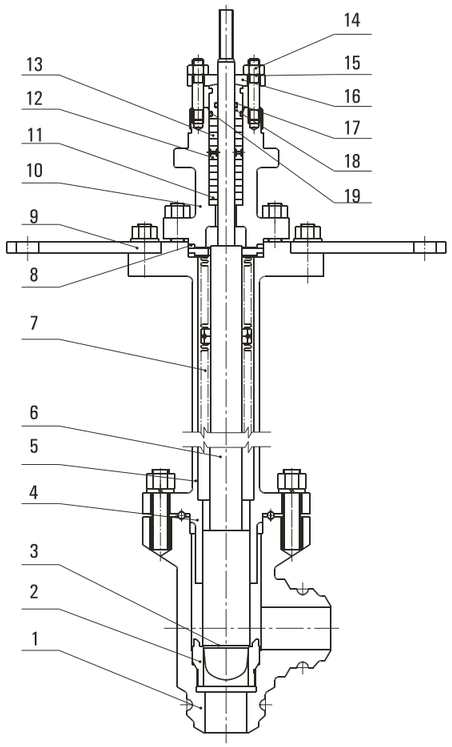
Valve inherent flow characteristic curve

Percentage of opening of flow characteristics and corresponding flow (R = 50)

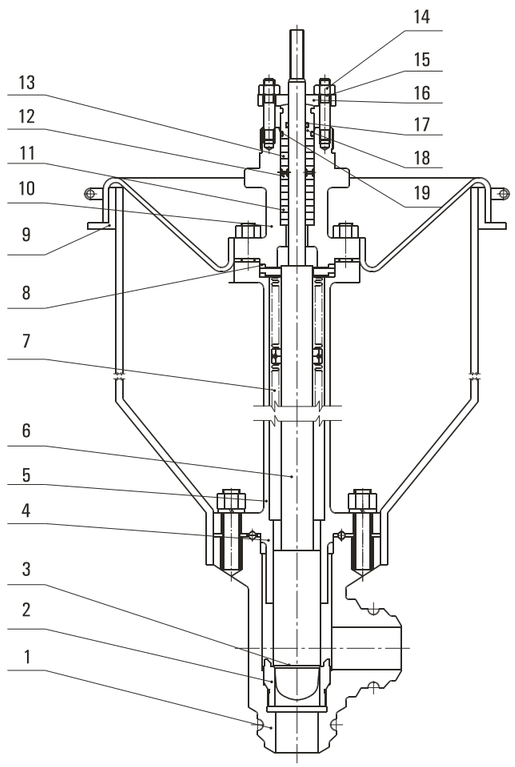
Percentage of opening (l/L)% \ Corresponding flow (Q/Qmax)%	0	10	20	30	40	50	60	70	80	90	100
Linear	2	11.8	21.6	31.4	41.2	51	60.8	70.6	80.4	90.2	100
Equal percentage	2	3	4.37	6.5	9.6	14.1	20.9	30.9	45.7	67.6	100

HDA700 series low temperature type angle valve

HDA700 series low temperature angle regulating valve



HDA700 series connection plate mounting type



HDA700 series floating cage installation type

1、Body
2、Seat
3、Plug
4、Metal O–ring
5、Connecting tube
6、Stem
7、Bellows components
8、Washers
9、Cold box mounting plate
10、Bonnet
11、Packing
12、Packing spacer
13、Packing
14、Hex nuts
15、Retainer studs
16、Packing flange
17、O–ring seal
18、Packing gland
19、O–ring seal

Maximum allowable differential pressure

Pneumatic diaphragm type actuator allowable differential pressure table

Air-closed (positive-acting) metal seal allowable differential pressure table **(Unit: MPa)**

Actuator	Spring range KPa	Air source pressure MPa	Seat diamete DN										
			20	25	32	40	50	65	80	100	125	150	200
PZMA–4	20–100	0.14	2.55	1.63									
	40–200	0.25	3.34	2.14									
	80–240	0.40	6.52	4.17									
PZMA–5	20–100	0.14			1.31	0.84	0.54						
	40–200	0.25			1.72	1.10	0.71						
	80–240	0.40			3.36	2.15	1.37						
PZMA–6	20–100	0.14						0.49	0.32	0.21			
	40–200	0.25						0.65	0.43	0.27			
	80–240	0.40						1.26	0.83	0.53			
PZMA–7	20–100	0.14									0.23	0.16	0.09
	40–200	0.25									0.30	0.21	0.12
	80–240	0.40									0.58	0.40	0.22

Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows.

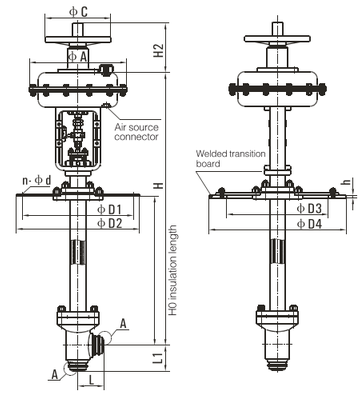
Air-open (negative action) metal seal allowable differential pressure table **(Unit: MPa)**

Actuator	Spring range KPa	Air source pressure MPa	Seat diamete DN										
			20	25	32	40	50	65	80	100	125	150	200
PZMB–4	20–100	0.14	0.95	0.51									
	40–200	0.25	2.55	1.63									
	80–240	0.28	5.37	3.57									
PZMB–5	20–100	0.14			0.49	0.32	0.20						
	40–200	0.25			1.31	0.84	0.54						
	80–240	0.28			2.95	1.89	1.21						
PZMB–6	20–100	0.14						0.18	0.12	0.08			
	40–200	0.25						0.49	0.32	0.21			
	80–240	0.28						1.11	0.73	0.47			
PZMB–7	20–100	0.14									0.09	0.06	0.03
	40–200	0.25									0.23	0.16	0.09
	80–240	0.28									0.52	0.36	0.20

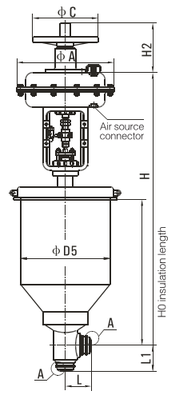
Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows.

HDA700 series low temperature angle regulating valve dimensions and weight

HDA700 series low temperature angle regulating valve dimensions and weight



HDA700 series connection plate mounting type



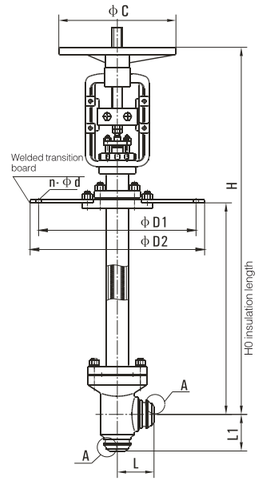
HDA700 series floating cage installation type

Dimensions of low-temperature angle regulating valve **(Unit: mm)**

DN	L	L1	H0						D1	D2	D3	D4	D5	h	n-d	A	C	H2	Weight (kg)	
			500	600	700	800	900	1000											PN16	PN63
			H																	
20	75	75	930	1030	1130	1230	1330	1430	260	290	230	310	279	15	8–14	282	220	180	23	25
25	75	75	930	1030	1130	1230	1330	1430	260	290	230	310	279	15	8–14	282	220	180	24	27
32	75	75	950	1050	1150	1250	1350	1450	285	315	250	335	279	15	8–14	308	220	180	29	32
40	85	85	950	1050	1150	1250	1350	1450	305	335	270	355	279	18	8–16	308	220	180	35	38
50	110	110	955	1055	1155	1255	1355	1455	340	370	305	390	279	18	8–16	308	220	180	38	42
65	160	150	1100	1200	1300	1400	1500	1600	460	490	430	520	460	18	10–16	394	270	240	55	61
80	160	150	1100	1200	1300	1400	1500	1600	525	555	490	585	460	20	10–16	394	270	240	81	89
100	170	160	1118	1218	1318	1418	1518	1618	590	630	556	600	460	20	12–18	394	270	240	105	115
125	200	200	1228	1328	1428	1528	1628	1728	700	740	665	770	460	20	14–18	498	320	310	117	129
150	220	220	1302	1402	1502	1602	1702	1802	700	740	665	770	460	20	16–18	498	320	310	132	145
200	260	260	1336	1436	1536	1636	1736	1836	805	845	765	890	460	20	18–18	498	320	310	167	183

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. The valve products suitable for various severe working conditions and can be customized according to the requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
3. The insulation length H0 can be customized according to the temperature of the medium and customer requirements. The flange of the low temperature regulating valve can be sealed with a metal O–ring (LF2), and an aluminum shoulder ring (LF4) can be used according to customer requirements;
4. The handwheel mechanism is a non–standard valve accessory, which can be selected according to customer requirements;
5. Welding transition boards can be selected according to customer requirements.

HDA700 Series Manual Low Temperature Angle regulating valve dimensions and weight

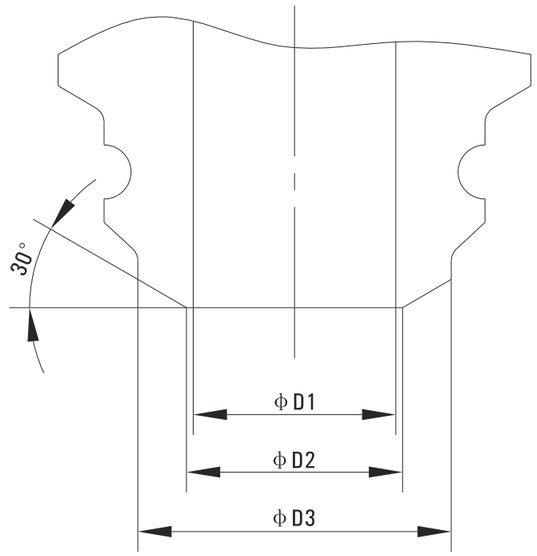


Dimensions of low-temperature angle regulating valve **(Unit: mm)**

DN	L	L1	H0						D1	D2	n-d	C	Weight (kg)	
			500	600	700	800	900	1000						
			H										PN16	PN63
20	75	75	830	930	1030	1130	1230	1330	260	290	8–14	200	23	25
25	75	75	830	930	1030	1130	1230	1330	260	290	8–14	200	24	27
32	75	75	845	945	1045	1145	1245	1345	285	315	8–14	200	29	32
40	85	85	845	945	1045	1145	1245	1345	305	335	8–16	200	35	38
50	110	110	850	950	1050	1150	1250	1350	340	370	8–16	200	38	42
65	160	150	956	1056	1156	1256	1356	1456	370	400	10–16	200	55	61
80	160	150	956	1056	1156	1256	1356	1456	405	435	10–16	200	81	89
100	170	160	974	1074	1174	1274	1374	1474	460	490	12–18	200	105	115
125	200	200	1034	1134	1234	1334	1434	1534	525	555	14–18	280	117	129
150	220	220	1108	1208	1308	1408	1508	1608	590	630	16–18	280	132	145
200	260	260	1142	1242	1342	1442	1542	1642	700	740	18–18	280	167	183

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. The valve products suitable for various severe working conditions can be customized according to the requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
3. The insulation length H0 can be customized according to the temperature of the medium and customer requirements. The flange of the low temperature regulating valve can be sealed with a metal O–ring (LF2), and an aluminum shoulder ring (LF4) can be used according to customer requirements.

Dimensions of welded bevel for low temperature angle regulating valve

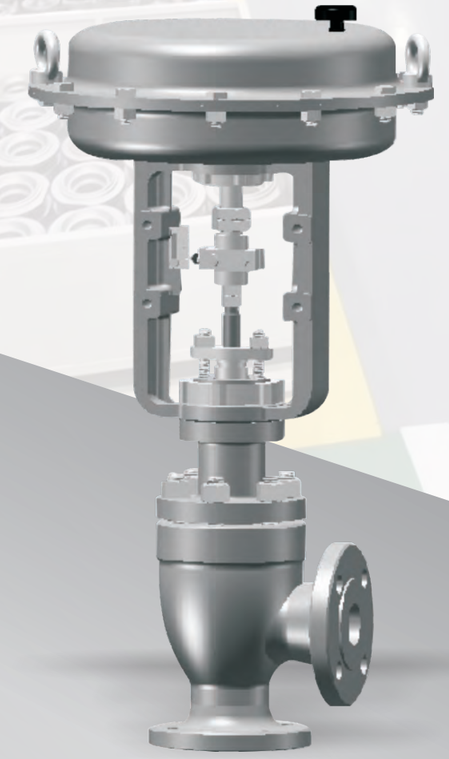


Dimensions of welded bevel for low temperature type angle regulating valve **(Unit: mm)**

DN	PN1.6MPa			PN4.0MPa			PN6.3MPa		
	D1	D2	D3	D1	D2	D3	D1	D2	D3
20	20	24	28	19	23	28	19	23	28
25	25	29	35	25	29	35	25	29	35
32	32	34	46	32	34	46	32	34	46
40	40	44	48	38	42	50	38	42	50
50	50	54	60	50	54	60	50	54	60
65	64	68	75	59	63	75	59	63	75
80	82	86	94	73	77	94	73	77	94
100	102	106	114	96	106	114	96	106	114
125	125	129	135	–	–	–	–	–	–
150	150	154	160	–	–	–	–	–	–
200	200	204	210	–	–	–	–	–	–

HOED

HDA Series Angle Regulating Valve



CANADA KINGSWAY FLOW CONTROL CO., LTD.

Overview

HDA series angle regulating valve has HDA100 series top–guided type and HDA300 series sleeve–guided type. The valve body has a compact structure, small volume, high flow characteristic curve accuracy, large valve guide area and good vibration resistance, capable of adapting to a variety of severe working conditions;

HDA series angle regulating valve is suitable for the applications with high viscosity, containing suspended matter and granular fluid, or the occasions requiring right angle piping;

This series of regulating valve can be easily made into special structures such as bellows sealing type, steam jacket type and extended upper bonnet.

Technical data and features

Valve Body

Type:	Unbalanced plug , fluid pressure balanced plug
Nominal Diameter:	15 ~ 200 mm (1/2 "–8")
Plug Type:	Plunger type, double sealing face balanced type
Flow Characteristics:	Equal percentage, linear, switch
Nominal Pressure:	PN1.6, 2.5, 4.0, 6.3, 10.0MPa
	ANSI Class 150, 300, 600;
	JIS 10K, 20K, 30K, 40K
Connection Type:	Flange (RF FM concave RTJ) Threaded
	Welding [Socket welding SW (Dn≤50) Butt welding BW (DN≥65)]
Flange standard:	ASME B16.5–2013
	DIN EN 1092–1–2008
	GB/T 9113–2010
	HG/T 20615–2019
	HG/T20592–2019
Flange End Face Distance:	See external dimensions of angle regulating valve
Body and Bonnet Material:	WCB WC6 LCB CF8 CF8M
	CF3 CF3M Hastelloy C

HOED
HDA Series Angle Regulating Valve

Upper Bonnet Type:	HDA–A series standard type –30~200℃
	HDA–B series extended type –60~560℃
	HDA–C series low temperature type –196~–45℃
	HDA–E series steam jacket insulation type
	HDA–D series bellows seal type
Structure:	HDA100 series top–guided angle regulating valve
	HDA300 series cage guided angle regulating valve
Packing:	PTFE V–packing
	Reinforced PTFE packing
	Expanded graphite packing
Others:	1. When the valve is a metal hard seal and the valve seat leakage rate is required to reach V, please specify in the contract
	2. If cavitation may occur in the valve, it is recommended to choose a cage regulating valve;
	3. If the valve may flash, it is recommended to choose a reduced–bore type, and plug and seat are hard faced.

Actuator part

Item \ Type		Pneumatic diaphragm type	Pneumatic piston type	Full electronic	Electric
Task		Regulating, On/Off	Regulating, On/Off	Regulating	Switch
Spring range		20–100;40–200; 80–240KPa	–	–	–
Air source/power		0.14, 0.25, 0.4MPa	0.4~0.6MPa	220V · AC 50Hz 380V · AC 50Hz	220V · AC 50Hz 380V · AC 50Hz
Connector		Rc1/4", Rc3/8"	Rc1/4",Rc1/2", Rc3/8"	Wiring: 2–G1/2 "	Wiring: 2–G1/2 "
Connection type of action		Air open, air close	–	Power on, power off	Power on, power off
Intrinsic error	General type	± 1.5% Fs (With positioner)		± 1.0% Fs	–
	Special type	± 4.0% Fs (With positioner)		± 2.5% Fs	–
Hysteresis error	General type	≤ 1.5% Fs (With positioner)		≤ 1.0% Fs	–
	Special type	≤3.0% Fs (With positioner)		≤2.0% Fs	–
Allowable ambient temperature		–10 ~ +70℃		–10 ~ +60℃	
Optional valve accessories		Electrical valve positioner, air filter regulator, solenoid valve, limit switch, lock–up valve, manual device		Overload unit	Inching switch for position detecting, potentiometer

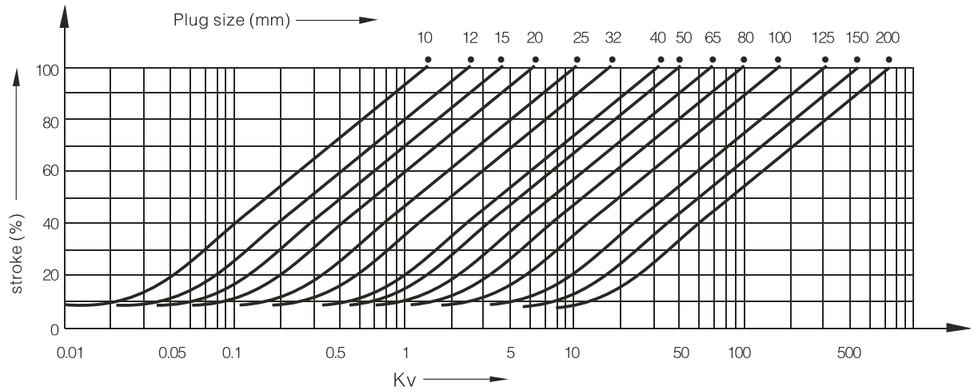
The main technical data

HDG500 series standard technical data

Nominal diameter		20	25	32	40	50	65	80	100	125	150	200
Rated Kv	Linear	6.9	11	17.6	27.5	44	69	110	176	275	440	690
	Equal percentage	6.3	10	16	25	40	63	100	160	250	400	630
Rated stroke L (mm)		16		25			40			60		
Diaphragm effective area (pneumatic valve) Ae(cm^2)		280		400			600			1000		
Inherent flow characteristics		Linear, equal percentage										
Inherent regulating ratio		50:1										
Allowable leakage		Hard seal: Grade IV (10^{-4} × Kv); Soft seal: Grade VI (see GB / T4213–2008)										

Temperature and pressure range of valve body and bonnet (see appendix)
Temperature and pressure range of valve trim and packing (see appendix)

Flow characteristics (percentage characteristics such as IEC standards)



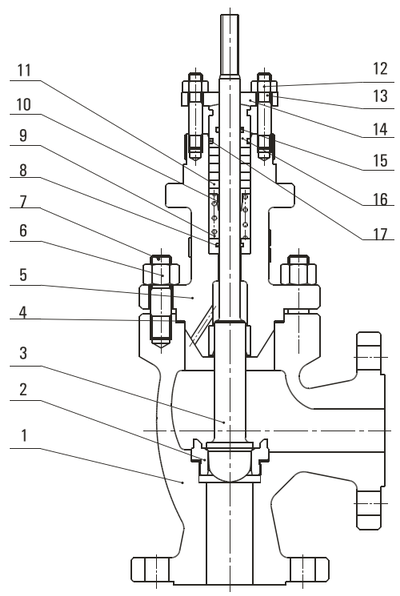
Valve inherent flow characteristic curve

Percentage of opening of flow characteristics and corresponding flow (R = 50)

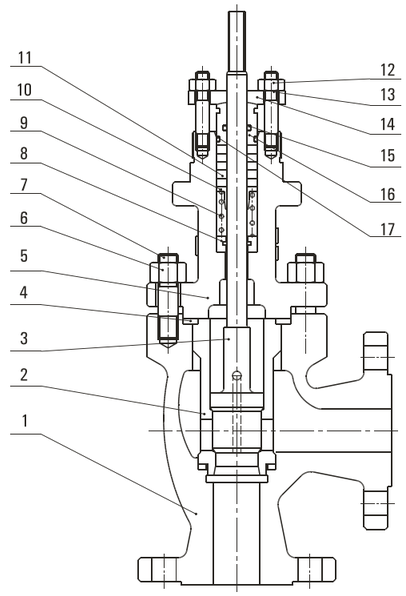
Percentage of opening (l/L)% \ Corresponding flow (Q/Qmax)%	0	10	20	30	40	50	60	70	80	90	100
Linear	2	11.8	21.6	31.4	41.2	51	60.8	70.6	80.4	90.2	100
Equal percentage	2	3	4.37	6.5	9.6	14.1	20.9	30.9	45.7	67.6	100

HDA series standard internal structure

HDA series angle regulating valve



HDA100 series top guide type



HDA300 series cage guide type

1、Body
2、Seat (valve cage)
3、Plug
4、Washers
5、Bonnet
6、Hex nuts
7、Body stud
8、Spring underlay
9、Packing spring
10、Spring cushion
11、Packing
12、Hex nuts
13、Retainer studs
14、Packing flange
15、O–ring seal
16、Packing gland
17、O–ring seal

Maximum allowable differential pressure

Pneumatic diaphragm type actuator allowable differential pressure table

Air-closed (positive-acting) metal seal allowable differential pressure table **(Unit: MPa)**

Actuator	Spring range KPa	Air source pressure MPa	Seat diamete DN										
			20	25	32	40	50	65	80	100	125	150	200
PZMA–4	20–100	0.14	2.55	1.63									
	40–200	0.25	3.34	2.14									
	80–240	0.40	6.52	4.17									
PZMA–5	20–100	0.14			1.31	0.84	0.54						
	40–200	0.25			1.72	1.10	0.71						
	80–240	0.40			3.36	2.15	1.37						
PZMA–6	20–100	0.14						0.49	0.32	0.21			
	40–200	0.25						0.65	0.43	0.27			
	80–240	0.40						1.26	0.83	0.53			
PZMA–7	20–100	0.14									0.23	0.16	0.09
	40–200	0.25									0.30	0.21	0.12
	80–240	0.40									0.58	0.40	0.22

Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows;
3. The data in the table is the allowable differential pressure of the angular unbalanced plug .

Air-open (negative action) metal seal allowable differential pressure table (unbalanced type) **(Unit: MPa)**

Actuator	Spring range KPa	Air source pressure MPa	Seat diamete DN										
			20	25	32	40	50	65	80	100	125	150	200
PZMB–4	20–100	0.14	0.95	0.51									
	40–200	0.25	2.55	1.63									
	80–240	0.40	5.37	3.57									
PZMB–5	20–100	0.14			0.49	0.32	0.20						
	40–200	0.25			1.31	0.84	0.54						
	80–240	0.40			2.95	1.89	1.21						
PZMB–6	20–100	0.14						0.18	0.12	0.08			
	40–200	0.25						0.49	0.32	0.21			
	80–240	0.40						1.11	0.73	0.47			
PZMB–7	20–100	0.14									0.09	0.06	0.03
	40–200	0.25									0.23	0.16	0.09
	80–240	0.40									0.52	0.36	0.20

Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows;
3. The data in the table is the allowable differential pressure of the angle unbalanced plug.

Air close (positive-acting) metal seal allowable differential pressure table (balanced) **(Unit: MPa)**

Actuator	Spring range KPa	Air source pressure MPa	Seat diamete DN										
			20	25	32	40	50	65	80	100	125	150	200
PZMA–4	20–100	0.14	3.81	3.18									
	40–200	0.25	5.41	4.50									
	80–240	0.40	10.0	9.81									
PZMA–5	20–100	0.14			3.40	2.80	2.29						
	40–200	0.25			4.82	3.96	3.24						
	80–240	0.40			10.0	8.63	7.06						
PZMA–6	20–100	0.14						2.78	2.29	1.85			
	40–200	0.25						3.94	3.24	2.62			
	80–240	0.40						8.58	7.06	5.72			
PZMA–7	20–100	0.14									2.58	2.16	1.63
	40–200	0.25									3.66	3.07	2.32
	80–240	0.40									7.97	6.68	5.05

Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows;
3. The data in the table is the allowable differential pressure of the angular unbalanced plug .

Air-open (negative action) metal seal allowable differential pressure table (balanced) **(Unit: MPa)**

Actuator	Spring range KPa	Air source pressure MPa	Seat diamete DN										
			20	25	32	40	50	65	80	100	125	150	200
PZMB–4	20–100	0.14	1.27	1.06									
	40–200	0.25	3.81	3.18									
	80–240	0.40	10.0	8.48									
PZMB–5	20–100	0.14			1.13	0.93	0.76						
	40–200	0.25			3.40	2.80	2.29						
	80–240	0.40			9.08	7.46	6.11						
PZMB–6	20–100	0.14						0.92	0.76	0.61			
	40–200	0.25						2.78	2.29	1.85			
	80–240	0.40						7.40	6.11	4.94			
PZMB–7	20–100	0.14									0.86	0.72	0.54
	40–200	0.25									2.58	2.16	1.63
	80–240	0.40									6.89	5.78	4.37

Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows;
3. The data in the table is the allowable differential pressure of the angle unbalanced plug.

Fully electronic and electric actuator allowable differential pressure table

Power on / off metal seal allowable differential pressure table (unbalanced type) **(Unit: MPa)**

Actuator	Power V.AC	Seat diamete DN										
		20	25	32	40	50	65	80	100	125	150	200
361LSA–20 341LSA–20	220	5.09	3.26	1.99	1.27							
361LSB–30 341LSB–30	220			2.98	1.91	1.22						
361LSB–50 341LSB–50	220					2.04	1.21	0.79	0.51			
361LSC–65 341LSC–65	220						1.57	1.04	0.66	0.42	0.29	0.16
361LSC–99 341LSC–99	220									0.65	0.45	0.25
361LSC–160 341LSC–160	220									0.95	0.72	0.41

Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows;
3. The data in the table is the allowable differential pressure of the angular unbalanced plug .

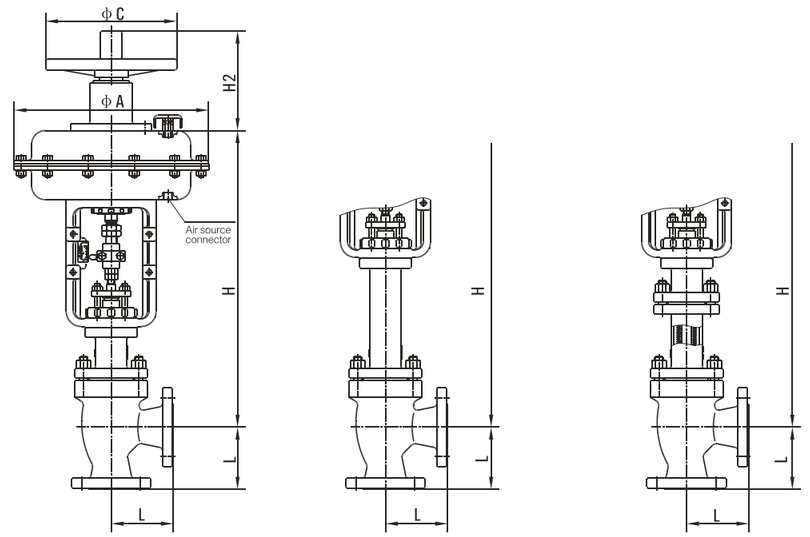
Power on/off metal seal allowable differential pressure table (balanced) **(Unit: MPa)**

Actuator	Power V.AC	Seat diamete DN										
		20	25	32	40	50	65	80	100	125	150	200
361LSA–20 341LSA–20	220	7.38	6.07	4.85	3.95							
361LSB–30 341LSB–30	220			7.28	5.93	4.81						
361LSB–50 341LSB–50	220					8.01	5.24	5.12	4.12			
361LSC–65 341LSC–65	220						8.12	6.65	5.36	4.31	3.61	2.72
361LSC–99 341LSC–99	220									6.63	5.55	4.18
361LSC–160 341LSC–160	220									10.0	8.88	6.69

Note: 1. The actual allowable differential pressure of the valve should not exceed the maximum pressure allowed by the valve at each pressure level;
2. The allowable differential pressure of the bellows sealing regulating valve should not exceed the maximum operating pressure allowed by the bellows;
3. The data in the table is the allowable differential pressure of the angular unbalanced plug .

HDA series angle regulating valve dimensions and weight

HDA–A series, HDA–B series, HDA–D series angle regulating valve dimensions and weight



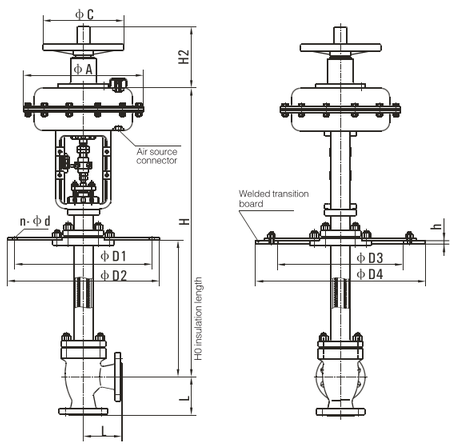
HDA–A series standard type HDA–B series extended type HDA–D series bellows seal type

Standard, extended, bellows sealed dimensions **(Unit: mm)**

DN	L		H			A	C	H2	Weight (kg)	
	PN16, 40	PN63, 100	标准型 Standard type	伸长型 Extended type	波纹管型 Bellows type				PN16	PN63
20	95	115	430	530	530	282	220	180	16	20
25	100	115	430	530	530	282	220	180	17	21
32	105	130	450	600	600	308	220	180	19	25
40	115	130	450	600	600	308	220	180	21	30
50	125	150	455	605	605	308	220	180	23	33
65	145	170	600	750	750	394	270	240	35	44
80	155	190	600	750	750	394	270	240	48	71
100	175	215	618	768	768	394	270	240	57	91
125	200	250	728	878	878	498	320	310	64	100
150	225	275	802	952	952	498	320	310	70	115
200	275	325	836	986	986	498	320	310	90	145

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. The valve products suitable for various severe working conditions can be customized according to the requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
3. The handwheel mechanism is a non–standard valve accessory, which can be selected according to customer requirements.

HDA–C series low temperature angle regulating valve dimensions and weight



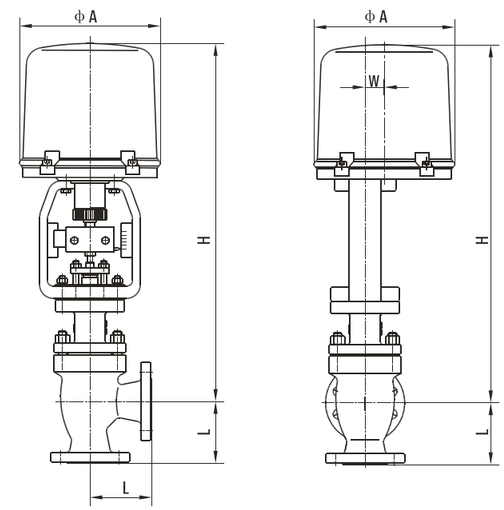
Connection plate mounting type

Low-temperature type dimensions **(Unit: mm)**

DN	L		H0						D1	D2	D3	D4	n–d	h	A	C	H2	Weight (kg)	
	PN16 PN40	PN63 PN100	500	600	700	800	900	1000										PN16	PN63
			H																
20	95	115	930	1030	1130	1230	1330	1430	260	290	230	310	8–14	15	282	220	180	23	25
25	100	115	930	1030	1130	1230	1330	1430	260	290	230	310	8–14	15	282	220	180	24	27
32	105	130	950	1050	1150	1250	1350	1450	285	315	250	335	8–14	15	308	220	180	29	32
40	115	130	950	1050	1150	1250	1350	1450	305	335	270	355	8–16	18	308	220	180	35	38
50	125	150	955	1055	1155	1255	1355	1455	340	370	305	390	8–16	18	308	220	180	38	42
65	145	170	1100	1200	1300	1400	1500	1600	460	490	430	520	10–16	18	394	270	240	55	61
80	155	190	1100	1200	1300	1400	1500	1600	525	555	490	585	10–16	20	394	270	240	81	89
100	175	215	1118	1218	1318	1418	1518	1618	590	630	556	600	12–18	20	394	270	240	105	115
125	200	250	1228	1328	1428	1528	1628	1728	700	740	665	770	14–18	20	498	320	310	117	129
150	225	275	1302	1402	1502	1602	1702	1802	700	740	665	770	16–18	20	498	320	310	132	145
200	275	325	1336	1436	1536	1636	1736	1836	805	845	765	890	18–18	20	498	320	310	167	183

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. The valve products suitable for various severe working conditions can be customized according to the requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
3. The insulation length H0 can be customized according to the temperature of the medium and customer requirements. The flange of the low temperature regulating valve can be sealed with a metal O–ring (LF2), and an aluminum shoulder ring (LF4) can be used according to customer requirements.
4. The handwheel mechanism is a non–standard valve accessory, which can be selected according to customer requirements;
5. Welding transition boards can be selected according to customer requirements.

HDA series electric angle regulating valve dimensions and weight



Dimensions of electric angle regulating valve **(Unit: mm)**

DN	L	H	A	W	Actuator model	Weight (kg)
20	150	518	225	28	361LSA–20	16
25	160	518	225	28	361LSA–20	17
32	180	695	255	28	361LSB–30	19
40	200	695	255	45	361LSB–30	21
50	230	700	255	45	361LSB–30	23
65	290	986	310	45	361LSB–50 361LSC–65	35
80	310	986	310	60	361LSB–50 361LSC–65	48
100	350	1004	310	60	361LSB–50 361LSC–65	57
125	400	1114	310	60	361LSC–65 361LSC–99	64
150	480	1188	310	60	361LSC–65 361LSC–99	70
200	600	1222	310	60	361LSC–65 361LSC–99	90

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. The structure length standard is DIN 3202;
3. We can customize the production of valve products suitable for various severe conditions according to the requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
4. Various brands of electric (intelligent) actuators can be selected according to customer requirements.

HDG900 Series Diaphragm Regulating Valve

CANADA KINGSWAY FLOW CONTROL CO., LTD.

Overview

HDG900 series diaphragm regulating valve is sealed by the "mountain" –shaped protruding surface between the diaphragm and the valve body, and is isolated from the outside (no packing box). The flow path of the valve body is simple, smooth, and can be covered with an anti–corrosion layer, which is especially suitable for corrosion resistance and highly toxic applications.

Technical data and features

Valve Body

Type:	Unbalanced plug
Nominal Diameter:	20 ~ 200mm (3/4 "–8")
Plug Type:	diaphragm type
Flow Characteristics:	Approximately equal percentage, switch
Nominal Pressure:	PN 0.6, 1.0MPa ANSI Class 150; JIS 10K
Connection Type:	Flange(RF)
Flange Standard:	ASME B16.5–2013 DIN EN 1092–1–2008 GB/T 9113–2010 HG/T 20615–2019 HG/T20592–2019
Face to Face Distance:	GB/T12221–2005 ASME B16.10–2000
Body and Bonnet Material:	WCB CF8
Trim Material:	0Cr18Ni9 (304); 0Cr17Ni12Mo2 (316) 00Cr17Ni14Mo2 (316L)
Lining and Diaphragm Material:	See table valve body lining material and applicable scope Diaphragm material and application range HDG900 series standard type –10~150℃
Upper Bonnet Type:	HDG900 series top–guided diaphragm regulating valve
Structure:	None
Packing:	1. The use of a corrosion–resistant diaphragm can avoid corrosion of the
Others:	metal valve body, and is suitable for occasions with strong corrosive medium; 2. The flow path is simple and the flow path resistance is small, which is suitable for the regulating of high–viscosity fluids and suspended particles or fiber medium; 3. There is basically no leakage when closed, and it can be used as an isolating valve; 4. The working pressure is generally less than 1MPa, and the operating temperature is less than 150℃.

Actuator part

Item \ Type		Pneumatic diaphragm type	Pneumatic piston type	Full electronic	Electric
Task		Regulating, On/Off	Regulating, On/Off	Regulating	Switch
Spring range		20–100;40–200; 80–240KPa	–	–	–
Air source/power		0.14, 0.25, 0.4MPa	0.4~0.6MPa	220V · AC 50Hz 380V · AC 50Hz	220V · AC 50Hz 380V · AC 50Hz
Connector		Rc1/4", Rc3/8"	Rc1/4",Rc1/2", Rc3/8"	Wiring: 2–G1/2 "	Wiring: 2–G1/2 "
Connection type of action		Air open, air close	Air open, air close, double acting	Power on, power off	Power on, power off
Intrinsic error	General type	± 1.5% Fs (With positioner)		± 1.0% Fs	–
	Special type	± 4.0% Fs (With positioner)		± 2.5% Fs	–
Hysteresis error	General type	⩽1.5% Fs (With positioner)		⩽1.0% Fs	–
	Special type	⩽3.0% Fs (With positioner)		⩽2.0% Fs	–
Allowable ambient temperature		–10 ~ +70℃		–10 ~ +60℃	
Optional valve accessories		Electrical valve positioner, air filter regulator, solenoid valve, limit switch, lock–up valve, manual device		Overload unit	Inching switch for position detecting, potentiometer

The main technical data

HDG500 series standard technical data

Nominal diameter		20	25	32	40	50	65	80	100	125	150	200
Rated Kv	Unlined	9.8	19	32	48	63	108	158	270	360	518	1114
	Lined	7.8	17	28	41	55	87	127	240	311	415	1121
Rated stroke L (mm)		8	10	12	16	24	30	34	36	44	55	65
Diaphragm effective area (pneumatic valve) Ae(cm^2)		280		400			600			1000		
Piston diameter (mm)		100		125			160			250		
Inherent flow characteristics		Approximate equal percentage										
Inherent regulating ratio		30:1										
Allowable leakage		Regulating type IV; switch type has zero leakage within the allowable differential pressure (see GB / T4213–2008)										

Temperature and pressure range of valve body and bonnet (see appendix)

Body lining material and application range

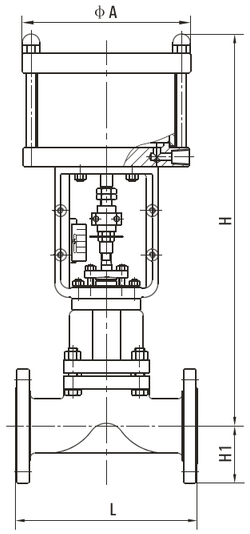
Body lining	Working temperature (℃)	Applicable medium
Unlined	–10 ~ +175℃	Suitable for non–corrosive medium
Soft rubber (BR)	–10 ~ +85℃	Suitable for inorganic alkali, salt, hydrochloric acid, metal plating solution, soft water, chloride, chlorine gas, etc.
Hard rubber (NR)	–10~+85℃	Has good corrosion resistance, suitable for cement, clay, coal dust, dry fertilizer, etc.
Neoprene (CR)	–10~+105℃	Suitable for animal oils, vegetable oils and lubricating oils, corrosive muds with a wide range of PH values, good abrasion resistance
Butyral	–10 ~ +120℃	Anti–corrosion and abrasion resistance, resistant to most organic acids, alkalis and hydroxides, inorganic salts and inorganic acid gas, alcohols, aldehydes, ethers, ketones, lipids, etc.
Enamel	–10. +175℃	Suitable for wet inorganic acids, oxidizing acids, halogens, alcohols, lipids and other compounds
FEP	–10 ~ +190℃	Suitable for strong corrosive medium such as sulfuric acid, hydrochloric acid, sodium hydroxide

Diaphragm material and application range

Diaphragm material	Working temperature (℃)	Applicable medium
Butyraldehyde rubber (Grade B)	–40 ~ +100℃	Most inorganic acids, such as sulfuric acid, hydrofluoric acid, phosphoric acid, etc.
Natural rubber (Q grade)	–50 ~ +100℃	Mainly used to purified water, inorganic salts and dilute mineral acid medium
Teflon	–10 ~ +150℃	Excellent chemical stability, resistance to strong acid, strong alkali and strong oxidant

HDG900 series diaphragm regulating valve dimensions and weight

HDG900 series pneumatic piston diaphragm regulating valve dimensions and weight

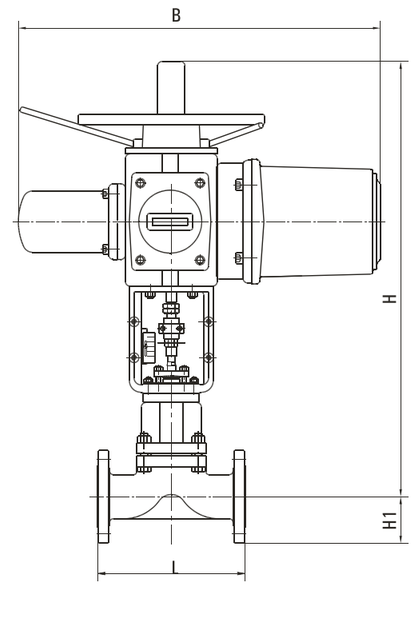


Dimensions of pneumatic piston diaphragm valve **(Unit: mm)**

DN	L	A	H	H1	Weight (kg)
20	150	145	348	52.5	21
25	160	145	351	57.5	23.5
32	180	175	351	67.5	28
40	200	175	379	75	33.5
50	230	175	405	82.5	38
65	290	215	430	90	65
80	310	215	430	100	73
100	350	215	440	110	94
125	400	315	440	135	160
150	480	315	440	150	195
200	600	315	440	190	290

Note: 1. The dimensions in the table are the data of the standard configuration of PN10. For the data of different pressure ratings, please contact our company;
2. The valve products suitable for various severe working conditions can be customized according to the requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
3. The handwheel mechanism is a non–standard valve accessory, which can be selected according to customer requirements.

HDG900 series electric diaphragm regulating valve dimensions and weight



Dimensions of electric diaphragm valve **(Unit: mm)**

DN	L	B	H	H1	Weight (kg)
20	150	637	398	52.5	27
25	160	637	401	57.5	31
32	180	637	401	67.5	36
40	200	637	429	75	44
50	230	637	455	82.5	49
65	290	637	480	90	85
80	310	687	480	100	95
100	350	687	490	110	122
125	400	687	490	135	208
150	480	687	490	150	254
200	600	687	490	190	377

Note: 1. The dimensions in the table are the data of the standard configuration of PN10. For the data of different pressure ratings, please contact our company;
2. The valve products suitable for various severe working conditions can be customized according to the requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
3. Various brands of electric (intelligent) actuators can be selected according to customer requirements.

HDG330 Series Low Noise Cage Single Seat Regulating Valve

CANADA KINGSWAY FLOW CONTROL CO., LTD.

Overview

HDG330 series low-noise cage single-seat regulating valve is sleeve-guided. When the medium flows through the valve body, it passes through three continuously regulating orifices in sequence, which is equivalent to three low-pressure drop valves connected in series to withstand high differential pressures, with anti-cavitation and noise reduction effect.

Technical data and features

Valve Body

Type:	Reduced-bore balanced plug plug
Nominal Diameter:	32 ~ 400mm (1 1/4 "-16")
Flow Characteristics:	Approximately equal percentage, approximately linear
Nominal Pressure:	PN4.0, 6.3, 10.0MPa ANSI Class 300, 600
Connection Type:	Flange, welding ①
Flange Distance:	In accordance with GB12221-2005①
Material of Valve Body and Upper Bonnet:	WCB, WC9, CF8, CF8M②
Upper Bonnet Type:	Standard type: -29 ℃~+ 200℃ Extension type: -60 ℃ ~ -29℃ or 200 ℃ ~ 280℃ Low temperature type: Low temperature type: -196 ℃ ~ -60℃
Packing:	Packing: ensure the temperature and pressure range of various materials
Surface coating:	Surface coating: PTFE V-packing, PTFE carbon fiber, Teflon asbestos and Expanded graphite
Note①:	The Connection type, the flange of the valve body and the distance between the flange end faces can be manufactured according to user's requirements;
Note ②:	The material of valve body, upper bonnet and valve trim can be manufactured according to user's requirements.

Actuator part

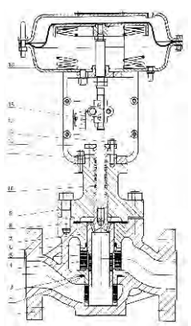
Item \ Type	Pneumatic diaphragm type	Cylinder	Electronic
Task	Regulating	Regulating	Regulating
Supply pressure or supply voltage	Air supply pressure (spring range) 140KPa(20KPa~100KPa) 250KPa(40KPa~200KPa) 280KPa(80KPa~240KPa)Air open type 400KPa(80KPa~240KPa)Air close type	Air supply pressure: 400 ~ 500KPa	See the selection samples of various manufacturers for details
Connector	Rc1/4	Rc1/4	
Positive action	Pressure increase valve off (FO)		Valve stroke to close according to the signal input
negative action	Air pressure increase valve open (FC)		Valve stroke to open according to the signal input
Allowable ambient temperature	–10℃ ~ +70℃	–10℃ ~ +55℃	See the selection samples of various manufacturers for details
Optional accessories	Valve positioner, air filter regulator, solenoid valve, limit switch, governor, speed increaser, handwheel mechanism, lock–up valve, etc.		

Special requirements

Special inspection of body part	Material inspection (test report)
Body part cleaning	Cleanliness requirements, oil ban, water removal treatment
Special specifications of body and actuator	Sand–proof and dust–proof type, salt–proof type, cold area, tropical area, copper ban, special air piping and special air joint, vacuum working conditions, bolts and nuts in contact with the atmosphere are made of stainless steel, specified coating

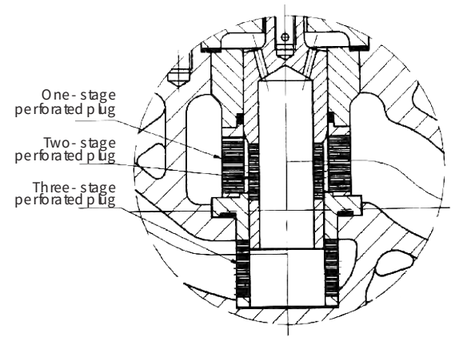
Valve body structure diagram

Structure of standard low noise cage single seat regulating valve



1、Body
2、Sealing gasket
3、Seat
4、Lower sleeve
5、Plug
6、Spring energy storage seal
7、Upper sleeve
8、Sealing ring
9、Bonnet
10、Stuffing box assembly
11、Packing nails
12、Packing flange
13、Packing nut
14、Packing compression stud
15、Clipboard
16、Actuator

Working principle



Sectional view of decompression component

Explanation:

The medium flowing through the cage finished the first stage of pressure reducing. When the pressure reduced medium flowing through the perforated plug, the second stage of pressure reducing is finished. After the second stage, the medium enter perforated seat, it is the third stage of pressure reducing. These three processes are completed in series by throttling sections, and each stage can be precisely controlled , greatly improving the controll accuracy. The medium flows through the three throttle sections in the valve cavity, and each section bear part of the differential pressure, thereby reducing the flow rate, and preventing the valve from cavitation and reduces noise.

Rated Kv value and rated stroke

Nominal diameter(mm)	Plug size dg (mm)	Rated Kv	Stroke (mm)
32 ~ 50	15	4.0	25
	20	6.3	
	25	10	
65 ~ 100	32	16	40
	40	25	
	50	40	
125 ~ 200	65	63	60
	80	100	
	100	160	
250 ~ 300	125	250	100
	150	400	
	200	630	
350 ~ 400	150	400	100
	200	630	
	250	1000	

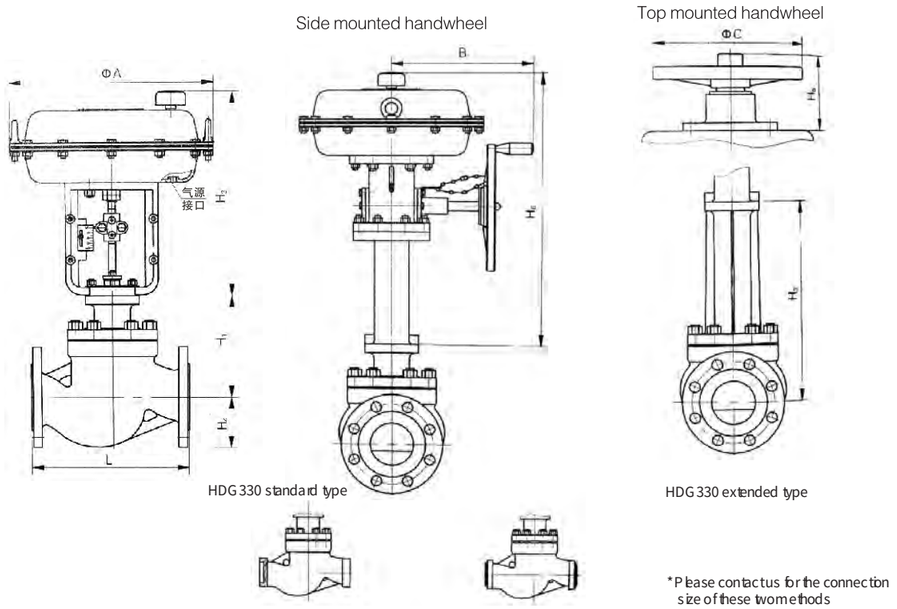
Connection size and standard

Connection type	Connecting flange, welding (need to be specified by the user)
Flange standard	GB/T9113.1
Sealing face type	Convex surface (MFM), the valve body is concave (FM);
Flange face distance	GB/T12221–2005
Actuator air signal Connector	Rc1/4

Note: Connection type, valve body flange standard, sealing face type and flange end face distance can be manufactured according to user's requirements.

Dimensions

Dimensions of pneumatic diaphragm type

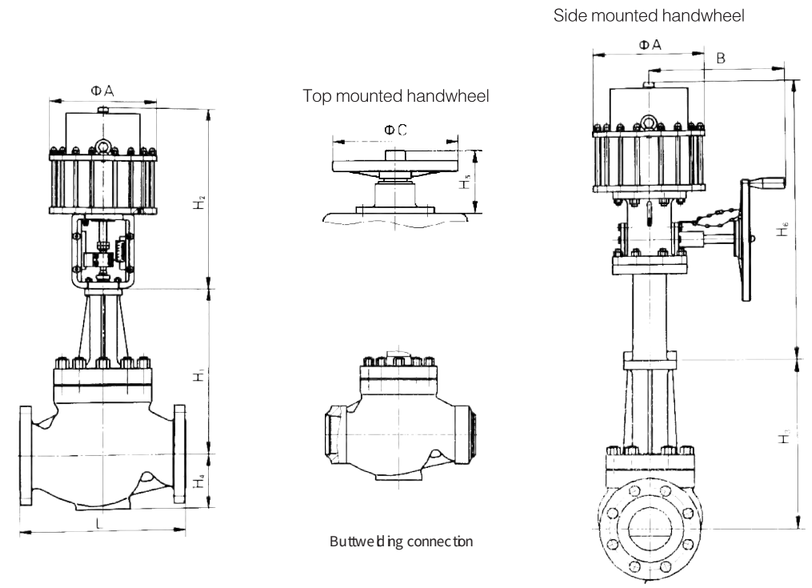


*Please contact us for the connection size of these two methods

Low noise cage single seat regulating valve dimensions **(Unit: mm)**

DN	L		H1	H2	H3	H4	H5	H6	B	C	A
	PN40	PN64 PN100 300# 600#									
32	180	260	152	280	386	56	180	400	260	220	308
40	200	260	152	280	402	65	180	400	260	220	308
50	230	300	159	280	320	76	180	400	260	220	308
65	290	340	205	360	365	100	236	580	305	270	394
80	310	380	205	360	365	100	236	580	305	270	394
100	350	430	208	360	373	110	236	580	305	270	394
125	400	500	274	435	484	126	310	675	330	310	498
150	480	550	333	435	529	149	310	675	330	310	498
200	600	650	370	435	730	198	310	675	330	310	498
250	730	775	493	621	771	220	394	959	374	500	618
300	850	900	545	621	771	326	394	959	374	500	618
350	980	980	610	621	812	350	394	959	374	500	618
400	980	980	681	621	830	372	394	959	374	500	618

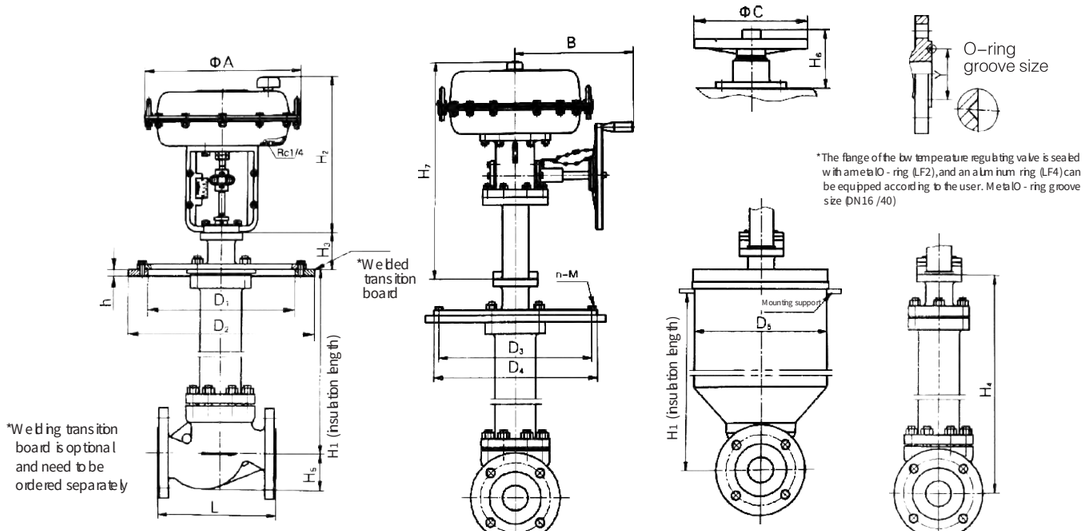
Single acting piston type dimensions



Dimensions of single acting piston regulating valve **(Unit: mm)**

DN	L		H1	H2	H3	H4	H5	H6	A	B	C
	PN40	PN64 PN100 300# 600#									
65	290	340	205	495	365	100	236	660	215	305	270
80	310	380	200	495	365	100	236	660	215	305	270
100	350	430	208	495	373	110	236	660	275	305	270
125	400	500	274	727	484	126	310	922	325	330	320
150	480	550	333	727	529	149	310	795	325	330	320
200	600	650	370	727	561	198	310	795	325	330	320
250	730	775	493	727	750	220	394	1035	340	374	500
300	850	900	545	775	771	326	394	1035	385	374	500
350	980	980	610	775	812	350	394	1035	412	374	500
400	980	980	680	775	830	372	394	1035	485	374	500

Cryogenic valve dimensions



HDG 330 connection plate installation type

HDG 330 floating cage installation type

Pipe mounting type

Dimensions of single acting piston regulating valve **(Unit: mm)**

DN	L		D1	D2	D3	D4	n–M	D5	Y	H1	H3	H4	H5	Actuator					
	PN16 150# PN25 PN40	PN64 PN100 300# 600#												A	C	H2	H6	H7	B
32	180	260	250	335	285	315	8–M12	285	60	700	88	587	56	308	220	280	180	400	260
40	200	260	270	355	305	335	8–M12	285	65	700	88	587	65	308	220	280	180	400	260
50	230	300	305	390	340	370	8–M14	285	75	700	88	587	76	308	220	280	180	400	260
65	290	340	342	430	370	400	10–M14	470	90	700	95	695	100	394	270	360	236	580	305
80	310	380	375	465	405	435	10–M14	470	104	700	95	695	100	394	270	360	236	580	305
100	350	430	430	520	460	490	12–M16	470	135	700	95	695	110	394	270	360	236	580	305
125	400	500	490	585	528	555	14–M16	–	165	800	170	870	126	498	320	435	310	675	330
150	480	550	556	600	590	635	14–M16	–	195	800	170	872	149	498	320	435	310	675	330
200	600	650	665	770	700	740	18–M16	–	245	800	170	970	198	498	320	435	310	675	330
250	730	775	845	970	900	940	22–M16	–	305	900	110	910	220	618	500	621	394	959	374
300	950	900	980	1120	1030	1080	20–M20	–	350	900	110	892	326	618	500	621	394	959	374
350	980	980	1080	1220	1130	1180	20–M20	–	400	900	110	945	350	618	500	621	394	959	374
400	980	980	1180	1320	1230	1280	24–M20	–	455	900	110	978	372	618	500	621	394	959	374

HDE100 Series Discharge Valve

CANADA KINGSWAY FLOW CONTROL CO., LTD.

Overview

HDE100 series discharge valve the discharge valve (also known as the drain valve and the tank bottom regulating valve) is a special structured single–seat regulating valve with smooth, large flow, low pressure drop loss, low leakage features and so on.

Features

1. The valve body adopts a special 30° angle design, with simple flow path, no dead angle, compact structure and convenient installation;
2. There are two types of seals: soft seal and metal seal. It has excellent isolation performance. The sealing face is hardened with Titanium alloy, which can realize the control of special severe working conditions
3. The flow characteristics are fast opening type, with fast action and sensitive response;
4. The bellows seal type completely seals the moving valve stem to prevent fluid leakage;
5. Jacket insulation type can be used in the occasion where the fluid is easy to crystallize and solidify after the fluid is cooled, causing the fluid to be blocked.

Technical data and features

Valve Body

Type:	Unbalanced plug
Nominal Diameter:	25 ~ 200mm (1 "–8")
Plug Type:	Plunger
Flow Characteristics:	Equal percentage, linear, fast opening, switching
Nominal Pressure:	PN 1.6, 2.5, 4.0, 6.3MPa ANSI Class 150, 300;
Connection Type:	Flange (RF FM concave RTJ)
Flange Standard:	ASME B16.5–2013 DIN EN 1092–1–2008 GB/T 9113–2010 HG/T 20615–2019 HG/T20592–2019

Face to Face Distance:	See the dimensions of pneumatic discharge valve
Body and Bonnet Material:	WCB WC6 LCB CF8 CF8M CF3 CF3M
Trim Material:	0Cr18Ni9 (304); 0Cr17Ni12Mo2 (316) 00Cr17Ni14Mo2 (316L) Above + R.TFE (Reinforeced PTFE) Above + Stellite (hard faced)
Upper Bonnet Type:	HDE100A standard type –30~200℃ HDE100B extended type –60~560℃ HDE100E steam jacket insulation type HDE100D bellows seal type
Structural Form:	HDE100 top–guided single–seat regulating valve
Packing:	PTFE V–packing Reinforced PTFE packing Expanded graphite packing

Actuator part

Item \ Type		Pneumatic diaphragm type	Pneumatic piston type	Manual
Task		Regulating, On/Off	Regulating, On/Off	On/Off
Air source/power		0.4MPa	0.4~0.6MPa	–
Connector		Rc1/4", Rc3/8"	Rc1/4",Rc1/2", Rc3/8"	–
Connection type of action		Air open, air close	Air open, air close, double acting	Double acting
Intrinsic error	General type	± 1.5% Fs (With positioner)		–
	Special type	± 4.0% Fs (With positioner)		–
Hysteresis error	General type	⩽1.5% Fs (With positioner)		–
	Special type	⩽3.0% Fs (With positioner)		–
Allowable ambient temperature		–10 ~ +70℃		–10 ~ +60℃
Optional valve accessories		Electrical valve positioner, air filter regulator, solenoid valve, limit switch, lock–up valve, manual device		

The main technical data

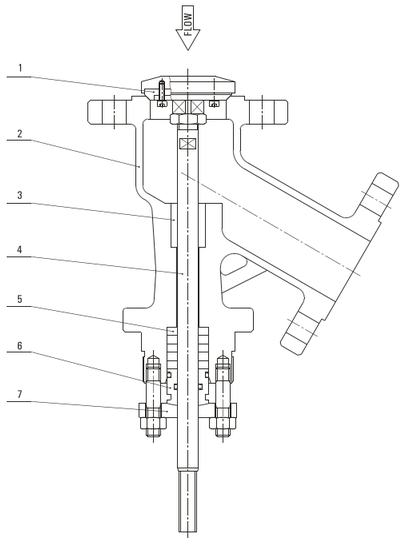
HDE100 series standard technical data

Nominal diameter			25	32	40	50	65	80	100	125	150	200
Rated Kv	Fast opening		11	20	30	48	75	120	190	300	480	760
Rated stroke L (mm)			8	10		12	20		22		25	
Diaphragm effective area (pneumatic valve) Ae(cm^2)			200/280				400			600		1000
活塞直径(mm)			100				150			200		250
Inherent flow characteristics			Fast opening (can be customized according to customer requirements, such as percentage, linear and other regulating flow characteristics)									
Inherent regulating ratio			50:1									
Allowable leakage			Hard seal: Grade IV (× KV); Soft seal: Grade VI (see GB / T4213–2008)									
Allowable differential pressure	Diaphragm type (MPa)	Air close	2.91	2.18	1.85	1.33	1.52	0.99	0.62	0.60	0.42	0.39
		Air open	3.88	2.91	2.47	1.77	2.03	1.32	0.83	0.80	0.55	0.52
	Piston type (Mpa)		3.5	3.0	2.3	1.9	1.9	1.5	0.93	0.84	0.65	0.53

Temperature and pressure range of valve body and bonnet (see appendix)
Temperature and pressure range of valve trim and packing (see appendix)

HDE100 series discharge valve internal structure diagram

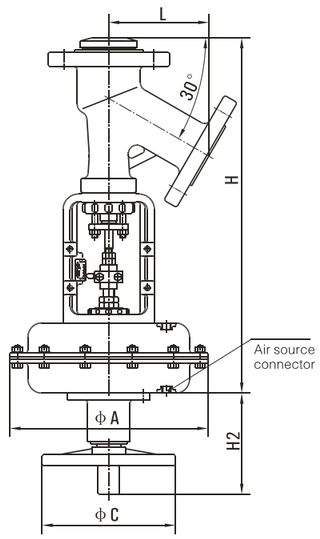
HDE100 series discharge valve internal structure diagram



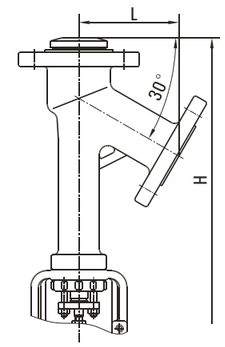
1、Plug assembly
2、Body
3、Guide sleeve
4、Stem
5、Packing
6、Packing gland
7、Packing flange

HDE100 series discharge valve dimensions and weight

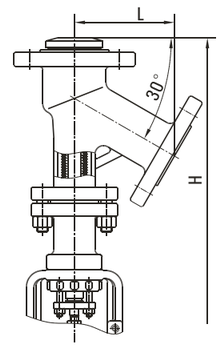
Pneumatic diaphragm discharge valve dimensions and weight



HDE100 Standard type



HDE100 extended type



HDE100 bellows seal type

Standard, extended, bellows sealed dimensions **(Unit: mm)**

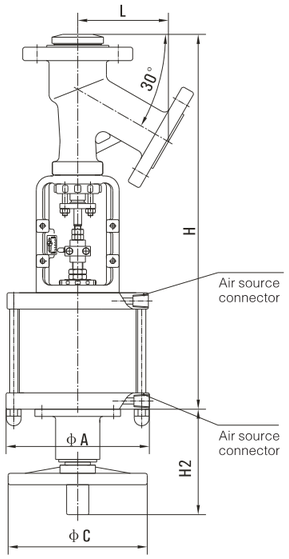
DN	L	H			A	C	H2
		Standard type	Extended type	Bellows type			
25	90	350	450	450	232/282	220	180
32	100	360	460	460	232/282	220	180
40	110	380	530	530	232/282	220	180
50	120	400	550	550	232/282	220	180
65	145	485	635	635	308	270	240
80	155	505	655	655	308	270	240
100	175	545	695	695	308	270	240
125	220	710	860	860	394	320	310
150	240	725	875	875	394	320	310
200	265	850	1000	1000	498	320	310

Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;

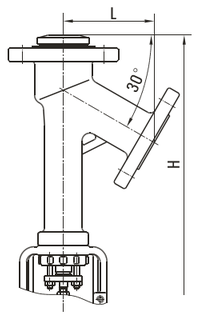
2. The valve products suitable for various severe working conditions can be customized according to the requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;

3. The handwheel mechanism is a non-standard valve accessory, which can be selected according to customer requirements.

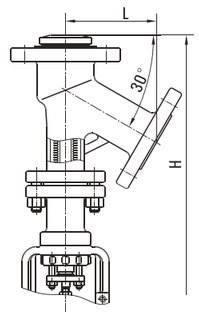
HDE100 series pneumatic piston discharge valve dimensions and weight



HDE100 Standard type



HDE100 extended type



HDE100 bellows seal type

Standard, extended, bellows sealed dimensions **(Unit: mm)**

DN	L	H			A	C	H2
		Standard type	Extended type	Bellows type			
25	90	350	450	450	130	220	180
32	100	360	460	460	130	220	180
40	110	380	530	530	130	220	180
50	120	400	550	550	130	220	180
65	145	485	635	635	190	270	240
80	155	505	655	655	190	270	240
100	175	545	695	695	190	270	240
125	220	710	860	860	250	320	310
150	240	725	875	875	250	320	310
200	265	850	1000	1000	325	320	310

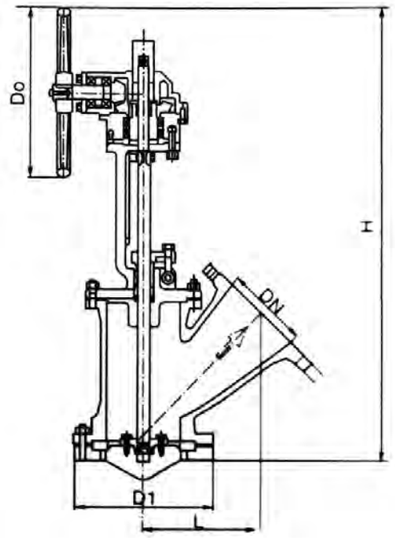
Note: 1. The dimensions in the table are the data of the standard configuration of PN16. For the data of different pressure ratings, please contact our company;
2. The valve products suitable for various severe working conditions can be customized according to customer requirements. If the customer has no special requirements, the product will be supplied according to the standard configuration;
3. The handwheel mechanism is a non-standard valve accessory, which can be selected according to customer requirements.

HDE200 Series Flat Bottom Slurry Valve

CANADA KINGSWAY FLOW CONTROL CO., LTD.

Main shape and connection size

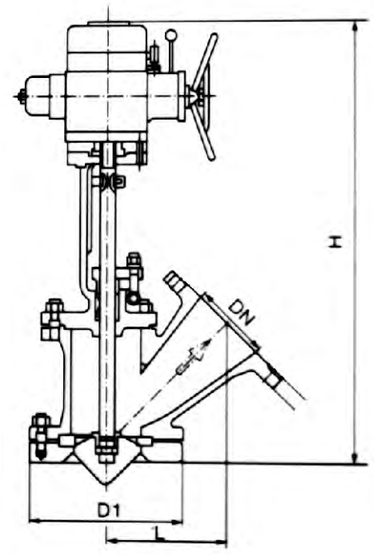
HDE200 series manual flat bottom slurry valve dimensions and weight



Dimensions of flat bottom slurry valve **(Unit: mm)**

DN	L	D1	D0	H
20	81	–	140	230
25	81	–	140	240
32	96	–	150	250
40	96	–	200	270
50	108	–	250	320
65	144	–	250	350
80	152	–	250	375
100	166	215	300	520
125	196	250	350	610
150	226	270	350	710
200	282	375	450	820
250	360	470	450	920
300	417	510	500	1080
350	480	570	500	1165
400	530	620	600	1695
450	587	680	600	1760
500	600	740	700	1800
600	693	800	700	1800

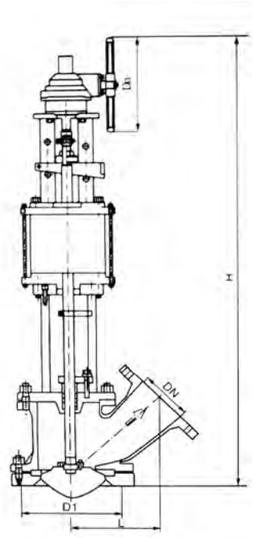
HDE200 series electric flat bottom slurry valve dimensions and weight



Dimensions of electric flat bottom slurry valve **(Unit: mm)**

DN	L	D1	D0	电动装置 Electric device	H
125	196	250	350	ZB15	630
150	226	270	350	Zb20	690
200	282	375	450	ZB20	765
250	360	470	450	ZC45	840
300	417	510	500	ZC60	940
350	480	570	500	ZC90	1060
400	530	620	600	ZC90	1060
450	587	680	600	ZC120	
500	600	740	700	ZC180	
600	693	800	700	ZC180	

HDE200 series pneumatic flat bottom slurry valve dimensions and weight



Dimensions of pneumatic flat bottom slurry valve **(Unit: mm)**

DN	L	D1	D0	H
100	166	220	250	810
125	196	250	250	–
150	226	270	350	930
200	282	375	350	1600
250	360	470	350	1850
300	417	510	450	1850
350	480	570	450	1960
400	530	620	550	–
450	–	–	550	–
500	–	–	600	–
600	–	–	600	–

OTHER VALVE