

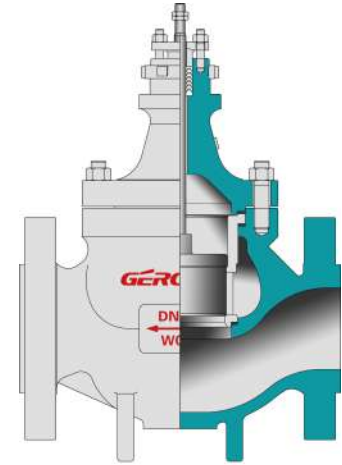
810T 双密封套筒调节阀，采用套筒导向，压力平衡式阀芯。与 810D 系列相比，该系列的调节阀是套筒双密封结构主要应用于泄漏要求不高的场合，因为是双密封结构两个密封面都是金属密封，因此使用的温度范围更宽一些。

Double seal sleeve adjustment valve, the use of sleeve oriented, pressure balanced spool. Compared with the 810D series, the series of control valve is the sleeve double seal structure is mainly used in the leakage requirements is not high, because it is a double seal structure two sealing surfaces are metal seal, so the use of a wider range of temperature.

产品特点 Product features

阀芯利用压力平衡式结构，启闭力小通过较小的执行机构推力就能控制高压差的工况。广泛应用于要求动态稳定性好的中低温、中低压管线的流体控制。密封性能好、允许压差大。套筒导向，导向面积大，稳定性好，结构紧凑，可以快速在线更换阀内件，维修效率高，节约人力和时间。平衡式阀芯结构确保所需的执行机构推力最小。

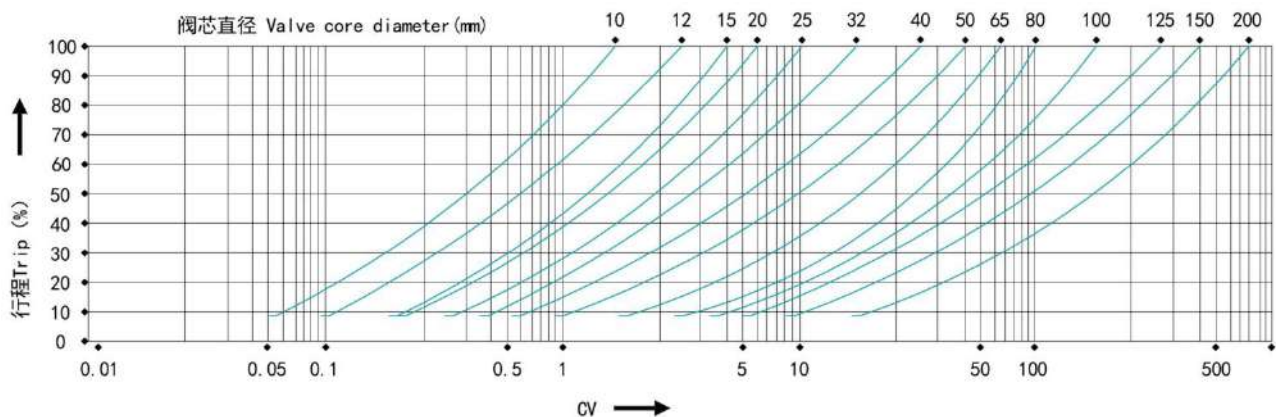
The valve core utilizes the pressure balanced structure, and the opening and closing force can control the working condition of the high pressure difference with the smaller executing agency. Widely used in the medium and low temperature, middle and low pressure pipeline, the fluid control of the medium and low pressure pipeline is widely used. Good sealing performance, allowing the pressure difference. Sleeve oriented, oriented area, good stability, compact structure, can be quickly online replacement valve parts, maintenance efficiency, save manpower and time. Balanced spool structure to ensure that the required actuator thrust minimum.



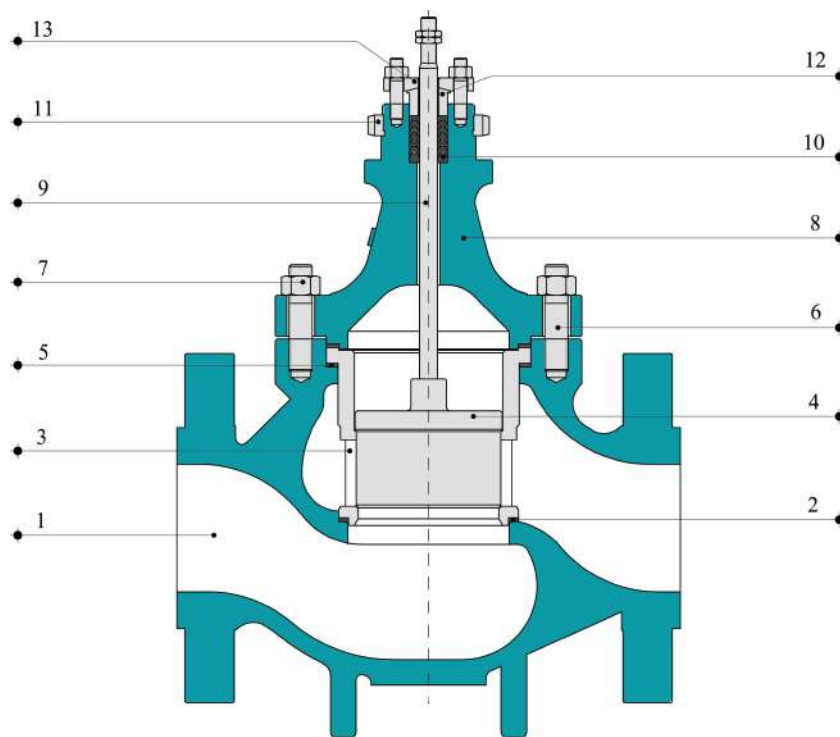
技术参数 Technical parameters

- | | |
|---|--|
| ● 阀体形式：直通 S 型铸造阀 | Body form : Straight S type casting valve |
| ● 阀芯形式：平衡式双密封套筒阀芯 | Spool form : Balanced double seal sleeve valve |
| ● 公称通径：DN25 ~ 300mm ; NPS 1 ~ 12" | Nominal diameter : DN25 ~ 300mm ; NPS 1" ~ 12" |
| ● 公称压力：PN1.6 ~ 16.0MPa ; CALSS 150 ~ 1500LB | Nominal pressure : PN1.6 ~ 32.0MPa ; CALSS 150 ~ 900LB |
| ● 适用温度：-196 ~ +550°C (按工矿可选) | Applicable temperature : -196 ~ +550°C (Optional) |
| ● 连接形式：法兰、焊接、螺纹 (适用于 1"内) | Connection form : Flange, welding, thread |
| ● 法兰距：符合 IEC 60534 | Flange distance : Meet IEC 60534 |
| ● 压盖形式：螺栓压紧式 | Gland form : Bolt pressing type |
| ● 密封垫片：金属石墨缠绕垫片 | Sealing gasket : Metal graphite wound gasket |
| ● 填料：聚四氟乙烯、柔性石墨 | Seal up : PTFE, flexible graphite |
| ● 执行器：气动执行器、电动执行器 | Actuator : Pneumatic actuator, electric actuator |

流量特性曲线图 Flow characteristic curve



结构与材料 Structure and materials



表一：本体材质为碳钢 Table 1 : Carbon steel valve body

1	阀体 Body	WCB	LCB	WC9
2	垫片 Shim	316+石墨 Graphite / FTFE		
3	套筒 Sleeve	304	304	304
4	阀芯 Spool	304	304	304
5	垫片 Shim	316+石墨 Graphite / FTFE		
6	螺柱 Stud	304	304	304
7	螺母 Nut	304	304	304
8	阀盖 Valve cover	WCB	LCB	WC9
9	阀杆 Valve stem	304	304	304
10	填料 Packing	PTFE / 柔性石墨		
11	锁紧螺母 Lock nut	304	304	304
12	压套 Pressing ring	304	304	304
13	压板 Plate	304	304	304

表二：本体材质为不锈钢 Table 2 : Stainless steel body

1	阀体 Body	CF8	CF8M	CF3M
2	垫片 Shim	316+石墨 Graphite / FTFE		
3	套筒 Sleeve	304	316	316L
4	阀芯 Spool	304	316	316L
5	垫片 Shim	316+石墨 Graphite / FTFE		
6	螺柱 Stud	304	316	316L
7	螺母 Nut	304	316	316L
8	阀盖 Valve cover	CF8	CF8M	CF3M
9	阀杆 Valve stem	304	316	316L
10	填料 Packing	PTFE / 柔性石墨		
11	锁紧螺母 Lock nut	304	316	316L
12	压套 Pressing ring	304	316	316L
13	压板 Plate	304	316	316L

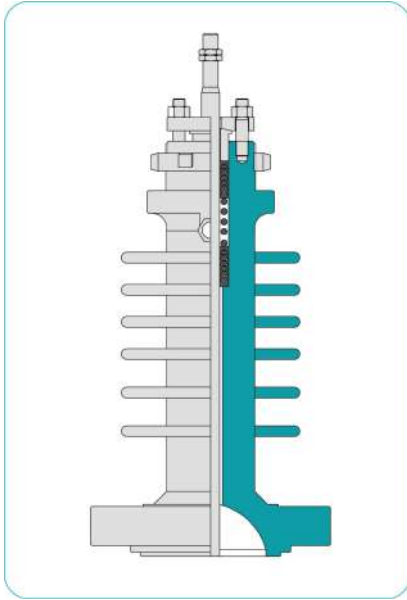
注：1、以上为标准配置结构，阀座为金属密封，阀座为软密封选用VI级可选件。可提供喷焊硬质合金的阀内件。

The above parameters for the standard configuration, soft seal can be specially made to order 6 seal. Valve inner part capable of providing spray welding hard alloy.

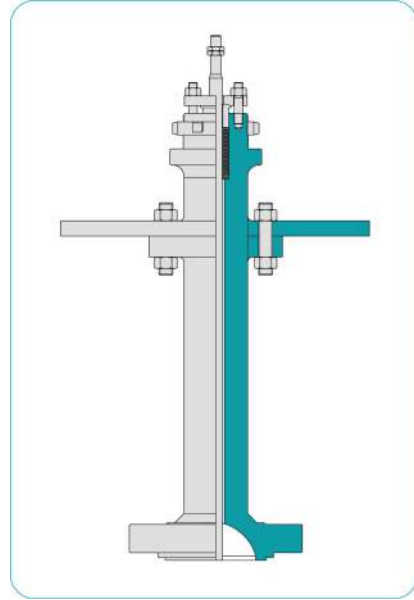
2、常规材质为碳钢和不锈钢两种，可根据用户现场条件订制特殊材质控制阀产品。

Conventional materials for carbon steel and stainless steel two, according to the user site conditions custom special material control valve products.

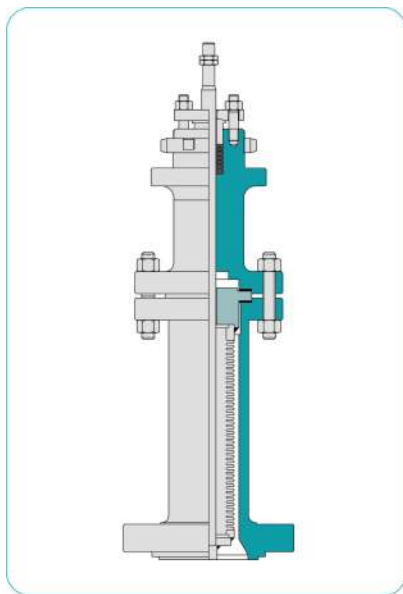
可应用于不同工况的结构 Can be applied to different conditions of the structure



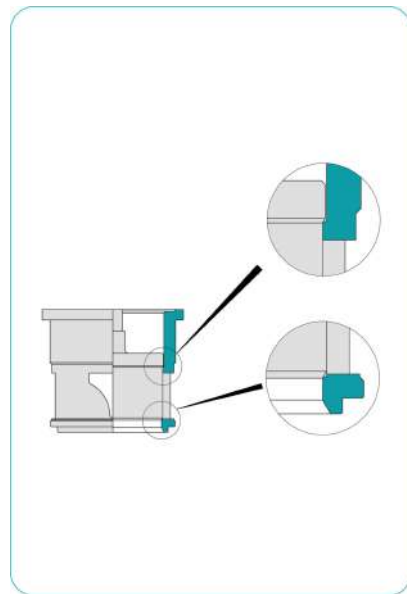
高温型 High temperature type
适用介质：蒸汽、热油等
Medium: Steam, hot oil etc.
适用温度：+250 ~ 550°C
Temperature：+250 ~ 550°C



低温型 Low temperature type
适用介质：液氮、液氧等
Medium: Liquid nitrogen etc.
适用温度：-70 ~ -196°C
Temperature：-70 ~ -196°C



波纹管型 Corrugated pipe type
适用介质：易燃易爆气体、有毒液体、腐蚀性介质等
Medium: Inflammable and explosive gas, Toxic liquid, Corrosive medium etc.



密封原理：套筒调节阀采用双密封导向型结构。具有耐压差高，运行稳定的特点，特别适用于蒸汽、热油自动控制系统中。

The sealing principle: sleeve valve with double seal oriented structure. With pressure difference, the characteristics of stable operation, especially suitable for steam and hot oil automatic control system.

规格参数 Specification parameter

阀座直径 (mm)		25	32	40	50	65	80	100	125	150	200	250	300
Inside diameter (in)		1	1-1/4	1-1/2	2	2-1/2	3	4	5	6	8	10	12
流量系数(KV) Flow coefficient	直线 Straight line	10	16	25	40	63	100	160	250	400	630	1000	1400
	等百分 Percent	11	17.6	27.5	44	69	110	176	275	440	690	1100	1500
口径(DN) Diameter (in)	行程 Travel	可选流量系数 CV (★ 标准型 ● 推荐 ○ 订制) Optional flow coefficient CV (★ Standard type ● Recommend ○ Customized)											
25 1	16 mm	★											
32 1-1/4	25 mm	○	★										
40 1-1/2		○	●	★									
50 2		○	●	●	★								
65 2-1/2	40 mm		○	○	○	★							
80 3			○	○	○	●	★						
100 4			○	○	○	●	●	★					
125 5	60 mm					○	○	○	★				
150 6							○	○	●	★			
200 8							○	○	●	●	★		
250 10	100 mm								○	●	●	★	
300 12										○	●	●	★
气动执行机构 Pneumatic actuator		HA/B-23			HA/B-34			HA/B-45			HA/B-56		
		350 cm ²			560 cm ²			900 cm ²			1400 cm ²		
作用方式 Mode of action	弹簧范围 Spring range	金属密封允许压差 (Mpa) Metal seal allows differential pressure (Mpa)											
气开式 Gas opening	20-100Kpa	3.0	2.25	2.25	1.95	2.36	2.04	1.67	1.41	1.41	1.14	0.65	0.55
	40-200Kpa	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	1.55	1.4
	80-240Kpa	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	4.08	4.08
气关式 Gas off	20-100Kpa	1.5	1.13	1.13	0.98	1.18	1.02	0.84	0.71	0.71	0.57	0.65	0.55
	40-200Kpa	4.5	3.38	3.38	2.93	3.54	3.06	2.51	2.12	2.12	1.71	0.8	1.55
	80-240Kpa	6.4	6.4	6.4	6.4	6.4	6.4	5.85	4.94	4.94	4.0	4.08	3.65
电动执行机构 Electric actuator		金属密封允许压差 (Mpa) Metal seal allows differential pressure (Mpa)											
推力 (N) Thrust (N)	800	6.4	6.4										
	2000	6.4	6.4	6.4	5.1								
	3000	6.4	6.4	6.4	6.4	5.7	4.76						
	5000			6.4	6.4	6.4	6.4	6.25					
	6500							6.4	6.4	4.23	3.23		
	10000									6.4	6.1	3.31	2.07
	16000											6.0	4.0

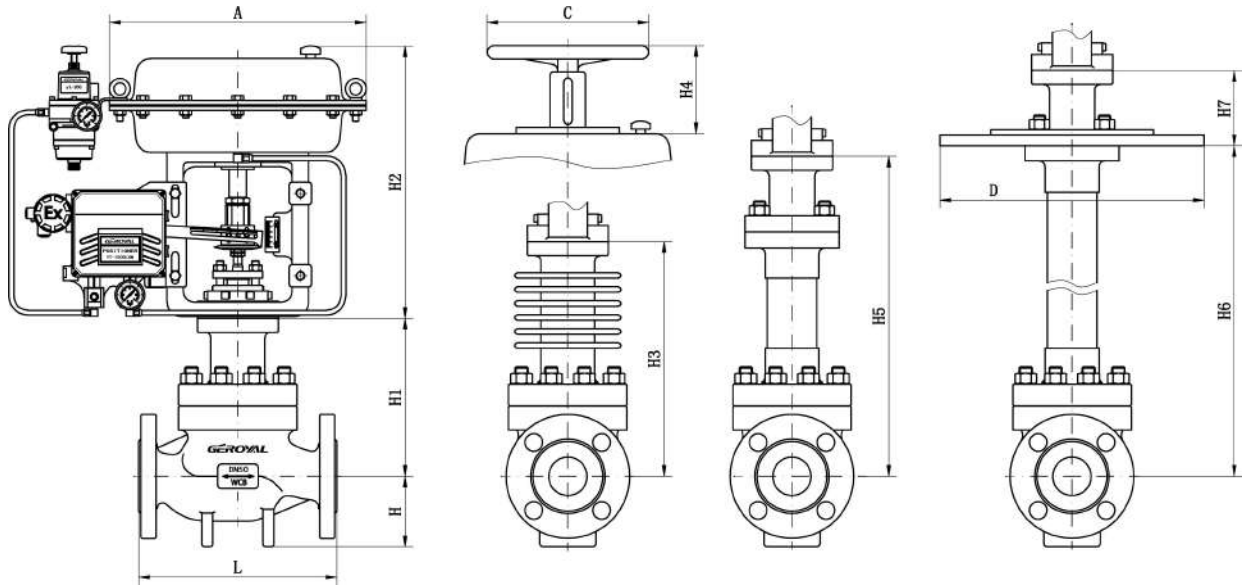
执行机构参数 Executing agency

形式 Form	型号 Model	气动薄膜执行机构 Pneumatic actuator	电子式电动执行机构 Electronic electric actuator
		ZH23 ~ ZH56	3810L RSL
		多弹簧型 Multi spring type	智能一体化型 Intelligent integration
用途 Use		调节 Regulating、开关 Switch	调节 Regulating
驱动 Drive		气压 pressure (弹簧范围 range of spring) 140 (20 ~ 100) Kpa G 240 (40 ~ 200) Kpa G 280 (80 ~ 240) Kpa G	电源 Power Supply : AC 220 V ±10% 50Hz 电源 Power Supply : AC 380 V ±10% 50Hz
接头 Joint		Rc 1/4	普通型 Popular type : 2-PF (G1/2") 隔爆型 Explosion proof type : 2-PF (G3/4")
正作用 Positive effect		气压增加推动阀门关闭 Air pressure increase to drive the valve close	控制信号增加推动阀门关闭 Control signal increase to drive the valve close
反作用 Reaction		气压增加推动阀门开启 Air pressure increase to drive the valve open	控制信号增加推动阀门开启 Control signal increase to drive the valve open
控制信号 Control signal		4 ~ 20mA.DC (带定位器 Tape locator)	输入输出 Input output 4 ~ 20mA.DC
滞后 Hysteresis		≤ 1% FS (带定位器 Tape locator)	≤ 0.8% FS
直线性 Linearity		2% FS (带定位器 Tape locator)	≤ ±1% FS
环境温度 Temperature		-10 ~ +70°C	
表面涂层 Surface coating		体 Body : 黑色磷化处理 Black phosphating treatment 执行器 Actuator : 丙烯酸聚氨酯漆 acrylic polyurethane enamel	
选配附件 Optional accessories		阀门定位器 Valve positioner 手轮 Handwheel 电磁阀 Solenoid valve 行程开关 Travel switch 限位阀 Position valve	加热器 Heater

性能 Performance

流量特性 Flow characteristics		等百分比 Equal percentage、直线 Straight line	
可调范围 Adjustable range		50:1	
额定 Cv 值 Rated Cv value		等百分比 The percentage etc : 10 ~ 1400 直线 Straight line : 11 ~ 1500	
允许泄漏量 Allowable leakage		硬密封 : IV级 (0.01%阀额定流量) ; 软密封 : V级 Metallic seal : IV (0.01% valve rated flow) ; soft seal: v	
性能指标 Performance index	驱动方式 Driving mode	气动 Pneumatic	电动 Electric
	基本误差 Intrinsic error %	± 1.0	± 1.0
	回差 Return difference %	≤ 1.0	≤ 1.0
	死区 Dead zone %	≤ 0.6	≤ 1.0
	始终点偏差 Switch deviation %	± 2.5	± 2.5
	额定行程偏差 Deviation of stroke %	≤ 2.5	≤ 2.5

气动调节阀连接尺寸 Pneumatic regulating valve connection size



DN	20	25	32	40	50	65	80	100	125	150	200	250	300	
In	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	5	6	8	10	12	
L	PN16/25	181	184	200	222	254	276	298	352	410	451	600	650	700
	PN40	181	184	200	222	254	276	298	352	410	451	600	670	770
	PN64	210	210	210	251	286	311	337	394	440	508	650	690	800
H	PN16/25	52.5	57.5	75	75	85.5	92.5	100	110	142.5	158	170	195	230
	PN40	52.5	57.5	75	75	82.5	92.5	100	117.5	150	167.5	187.5	205	245
	PN64	65	40	85	85	90	102.5	107.5	125	172.5	195	207.5	230	260
H1	132	132	158	170	179	214	221	234	270	294	331	390	450	
H2	285	285	285	285	285	360	360	360	470	470	470	580	580	
H3	208	208	224	228	228	334	334	342	408	453	482	520	550	
H4	153	153	153	153	153	181	181	181	247	247	247	/	/	
H5	336	338	402	402	405	627	628	635	698	702	728	755	790	
H6	700 (根据实际温度定制)													
H7	88	88	88	88	88	95	95	95	95	110	110	140	140	
D	310	310	355	355	390	430	465	520	585	660	770	890	950	
A	200	200	200	200	200	240	240	240	350	350	350	450	450	
C	282	282	282	282	282	360	360	360	470	470	470	650	650	
法兰 Flange	可执行: GB、HG、JB、DIN、JIS、ANSI 等相应标准 Executable: GB、HG、JB、DIN、JIS、ANSI Corresponding standard													

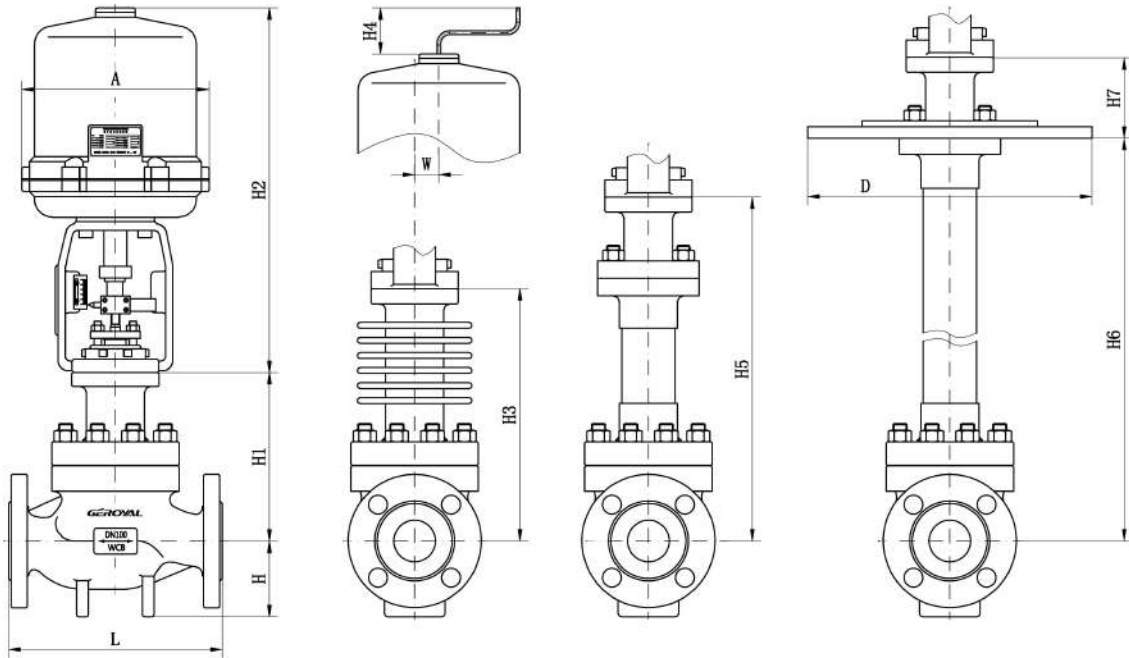
注：1、表中尺寸为不带附件标准数据，附件尺寸根据实际配置计算。

The size of the table is not the standard data of the accessories, the size of the accessory is calculated according to the actual configuration.

2、由于产品的技术创新与改进，尺寸可能会有所变化，最新资料请联系 GEROYAL 公司索取。

Due to the technical innovation and improvement of the product, the size may vary, please contact GEROYAL to obtain the latest information.

电动调节阀连接尺寸 Electric regulating valve connection size



DN	20	25	32	40	50	65	80	100	125	150	200	250	300	
In	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	5	6	8	10	12	
L	PN16/25	181	184	200	222	254	276	298	352	410	451	600	640	880
	PN40	181	184	200	222	254	276	298	352	410	451	600	640	880
	PN64	210	210	210	251	286	311	337	394	440	508	650	810	950
H	PN16/25	52.5	57.5	75	75	85.5	92.5	100	110	142.5	158	170	195	230
	PN40	52.5	57.5	75	75	82.5	92.5	100	117.5	150	167.5	187.5	205	245
	PN64	65	40	85	85	90	102.5	107.5	125	172.5	195	207.5	230	260
H1	132	132	158	170	179	214	221	234	270	294	331	390	450	
H2	373	373	456	456	538	538	548	548	725	725	725	795	795	
H3	208	208	224	228	228	334	334	342	408	453	482	520	550	
H4	90	90	90	90	90	90	90	90	90	90	90	90	90	
H5	336	338	402	402	405	627	628	635	698	702	728	755	790	
H6	700 (根据实际温度定制)													
H7	88	88	88	88	88	95	95	95	95	110	110	140	140	
D	310	310	355	355	390	430	465	520	585	660	770	890	950	
A	225	225	225	255	255	255	255	255	310	310	310	350	350	
法兰 Flange	可执行：GB、HG、JB、DIN、JIS、ANSI 等相应标准 Executable：GB、HG、JB、DIN、JIS、ANSI Corresponding standard													

注：1、表中尺寸为不带附件标准数据，附件尺寸根据实际配置计算。

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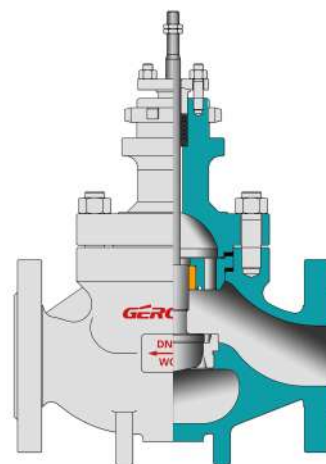
810D 顶部导向型单座调节阀，采用顶部导向不平衡式结构，具有高强度、重载荷、S 型流道、压降损失小、流量系数大、可调范围广、流量特性精度高。此调节阀适用于工况压差较小的场合，关闭严密，适用于对介质流量或者压力的调节。

810D top guide type single seat control valve, the top guide not balanced structure and has high strength, heavy load, an S-shaped channel, pressure drop, flow coefficient, can adjust in a wide range, flow characteristics of high precision. This type of adjustment valve is suitable for the condition of small pressure difference, close the tight, suitable for the adjustment of medium flow or pressure.

产品特点 Product features

阀座采用螺纹拧入式结构，具有可靠性能强，后期更换维修方便等特点，解决了传统的无阀座结构泄露无法更换的困难。延长了使用寿命。采用流开式设计，介质趋向于阀门开启的方向，小开度可控性好，流量特性畸变小。根据工况可选配电动或气动执行器进行控制。

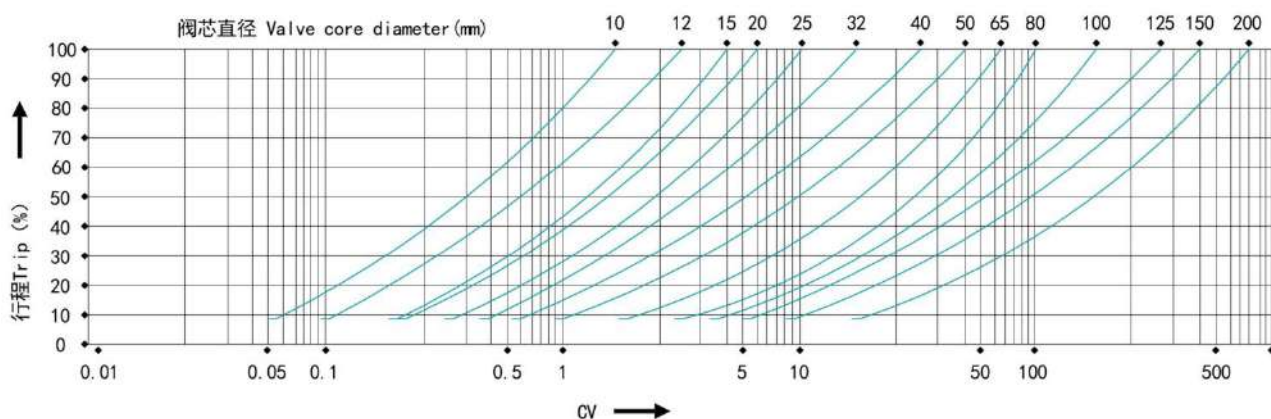
The valve seat is made of screw in structure, has the advantages of reliable performance, convenient replacement and maintenance, etc., to solve the problem of the traditional no valveseat body leakage can not be replaced. Extended service life. The open design, the media tendsto open the valve opening direction, good controllability, flow characteristics and small distortion. According to the working condition, the electric or pneumatic actuators can be controlled.



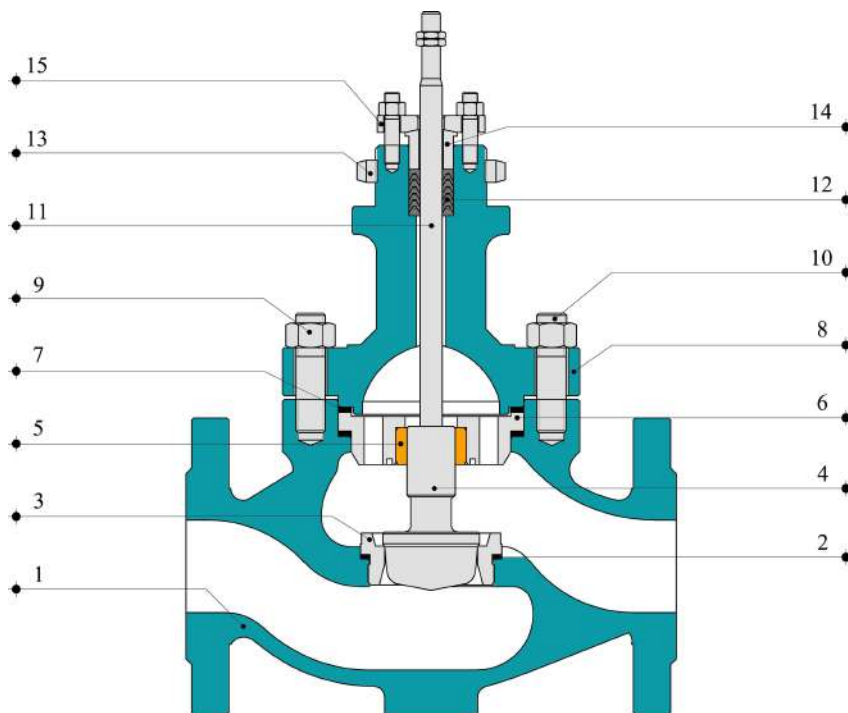
技术参数 Technical parameters

- | | |
|---|--|
| • 阀体形式：直通 S 型铸造阀 | Body form : Straight S type casting valve |
| • 阀芯形式：不平衡式单座柱塞阀芯 | Spool form : Unbalanced type single seat plunger valve |
| • 公称口径：DN15 ~ 300mm ; NPS 1/2 ~ 12" | Nominal diameter : DN15 ~ 300mm ; NPS 1/2 ~ 12" |
| • 公称压力：PN1.6 ~ 6.4MPa ; CALSS 150 ~ 300LB | Nominal pressure : PN1.6 ~ 6.4MPa ; CALSS 150 ~ 300LB |
| • 适用温度：-196 ~ +550°C (按工矿可选) | Applicable temperature : -196 ~ +550°C (Optional) |
| • 连接形式：法兰、焊接、螺纹 (适用于 1" 内) | Connection form : Flange, welding, thread |
| • 法 兰 距：符合 IEC 60534 | Flange distance : Meet IEC 60534 |
| • 压盖形式：螺栓压紧式 | Gland form : Bolt pressing type |
| • 密封垫片：金属石墨缠绕垫片 | Sealing gasket : Metal graphite wound gasket |
| • 填 料：聚四氟乙烯、柔性石墨 | Seal up : PTFE, flexible graphite |
| • 执 行 器：气动执行器、电动执行器 | Actuator : Pneumatic actuator, electric actuator |

流量特性曲线图 Flow characteristic curve



结构与材料 Structure and materials



表一：本体材质为碳钢 Table 1 : Carbon steel valve body

1	阀体 Body	WCB	LCB	WC9
2	垫片 Shim	316+石墨 Graphite / FTFE		
3	阀座 Seat	304	304	304
4	阀芯 Spool	304	304	304
5	铜套 Copper sleeve	Cu / 316L		
6	导向套 Guide sleeve	304	304	304
7	垫片 Shim	316+石墨 Graphite / FTFE		
8	阀盖 Valve cover	WCB	LCB	WC9
9	螺母 Nut	304	304	304
10	螺柱 Stud	304	304	304
11	阀杆 Valve stem	304	304	304
12	填料 Packing	石墨 Graphite / FTFE		
13	锁紧螺母 Lock nut	304	304	304
14	压套 Pressing ring	304	304	304
15	压板 Plate	304	304	304

表二：本体材质为不锈钢 Table 2 : Stainless steel body

1	阀体 Body	CF8	CF8M	CF3M
2	垫片 Shim	316+石墨 Graphite / FTFE		
3	阀座 Seat	304	316	316L
4	阀芯 Spool	304	316	316L
5	铜套 Copper sleeve	Cu / 316L		
6	导向套 Guide sleeve	304	316	316L
7	垫片 Shim	316+石墨 Graphite / FTFE		
8	阀盖 Valve cover	CF8	CF8M	CF3M
9	螺母 Nut	304	316	316L
10	螺柱 Stud	304	316	316L
11	阀杆 Valve stem	304	316	316L
12	填料 Packing	石墨 Graphite / FTFE		
13	锁紧螺母 Lock nut	304	316	316L
14	压套 Pressing ring	304	316	316L
15	压板 Plate	304	316	316L

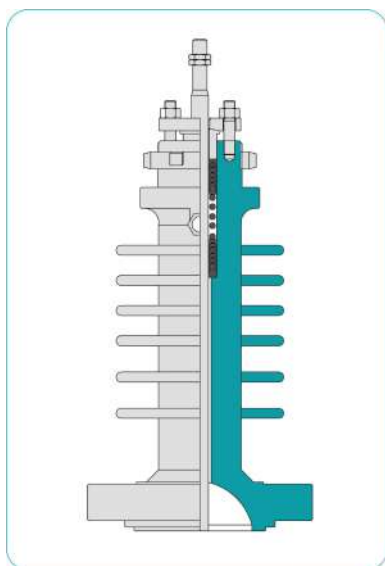
注：1、以上为标准配置结构，阀座为金属密封，阀座为软密封选用VI级可选件。可提供喷焊硬质合金的阀内件。

The above parameters for the standard configuration, soft seal can be specially made to order VI seal. Valve inner part capable of providing spray welding hard alloy.

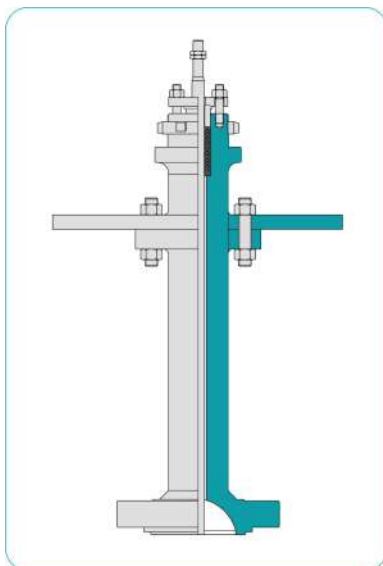
2、常规材质为碳钢和不锈钢两种，可根据用户现场条件定制特殊材质控制阀产品。

Conventional materials for carbon steel and stainless steel two, according to the user site conditions custom special material control valve products.

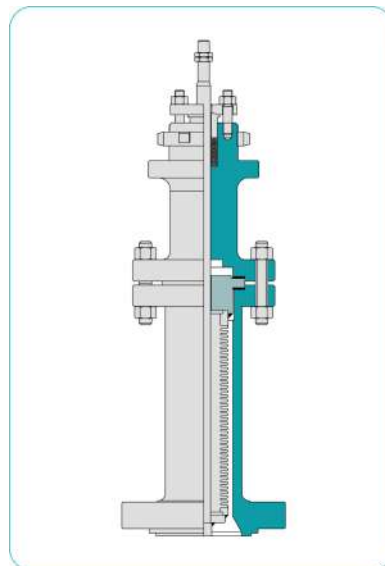
可应用于不同工况的结构 Can be applied to different conditions of the structure



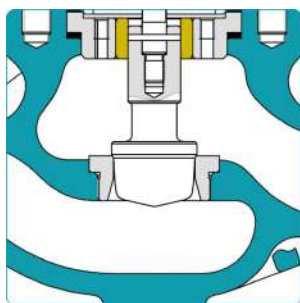
高温型 High temperature type
适用介质：蒸汽、热油等
Medium: Steam, hot oil etc.
适用温度：+250 ~ 550°C
Temperature : +250 ~ 550°C



低温型 Low temperature type
适用介质：液氮、液氧等
Medium: Liquid nitrogen etc.
适用温度：-70 ~ -196°C
Temperature : -70 ~ -196°C

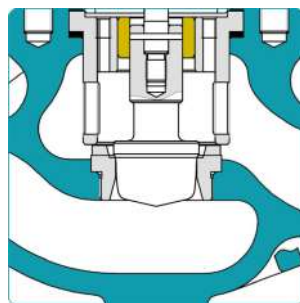


波纹管型 Corrugated pipe type
适用介质：易燃易爆气体、有毒液体、腐蚀性介质等
Medium: Inflammable and explosive gas, Toxic liquid, Corrosive medium etc.



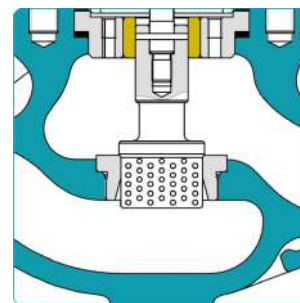
标准单座结构：适用于阀前后压差较小，允许少量软性杂质的场合。此结构操作稳定、流量特性好、调节范围大等优点。

The standard single seat structure:
Applicable to the valve before and after the pressure is smaller, allowing a small amount of soft impurities occasion. This structure has the advantages of stable operation, good flow characteristic, large adjustment range and so on.



笼式单座结构：适用于阀前后压差较小，允许少量软性杂质的场合。此结构具有动态稳定性好、噪音低的优点。

Cage type single seat structure:
Applicable to the valve before and after the pressure is smaller, allowing a small amount of soft impurities occasion. This structure has the advantages of good dynamic stability and low noise.



改进型单座结构：适用于阀前后压差较大，介质干净的场合。此结构设计具有双重导向，稳定性高、泄漏量低等优点。

Improved single seat structure:
Suitable for pressure difference between the front and back of the valve, the medium clean occasions. The design of this structure has the advantages of double direction, high stability and low leakage.

规格参数 Specification parameter

阀座直径 (mm) Inside diameter (in)		20	25	32	40	50	65	80	100	125	150	200	250	300
		3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	5	6	8	10	12
流量系数(KV) Flow coefficient	直线 Straight line	6.9	11	17.6	27.5	44	69	110	176	275	440	690	1100	1760
	等百分 Percent	6.3	10	16	25	40	63	100	160	250	400	630	1000	1600
口径(DN) Diameter (in)	行程 Travel	可选流量系数 CV (★ 标准型 ● 推荐 ○ 订制) Optional flow coefficient CV (★ Standard type ● Recommend ○ Customized)												
20 3/4	16 mm	★												
25 1		●	★											
32 1-1/4	25 mm	○	○	★										
40 1-1/2		○	○	●	★									
50 2		○	○	●	●	★								
65 2-1/2	40 mm			○	○	○	★							
80 3				○	○	○	●	★						
100 4				○	○	○	●	●	★					
125 5	60 mm						○	○	○	★				
150 6								○	○	●	★			
200 8									○	○	●	●	★	
250 10	100 mm								○	○	●	●	★	
300 12									○	○	●	●	●	★
气动执行机构 Pneumatic actuator		HA/B-22		HA/B-23			HA/B-34			HA/B-45			HA/B-56	
		350 cm ²		350 cm ²			560 cm ²			900 cm ²			1400 cm ²	
作用方式 Mode of action	弹簧范围 Spring range	金属密封允许压差 (Mpa) Metal seal allows differential pressure (Mpa)												
气开式 Gas opening	20-100Kpa	1.16	0.7	0.44	0.28	0.18	0.17	0.11	0.07	0.07	0.05	0.03	0.02	0.01
	40-200Kpa	3.34	2.14	1.31	0.84	0.53	0.51	0.33	0.21	0.21	0.15	0.09	0.06	0.04
	80-240Kpa	6.40	4.99	3.05	1.95	1.25	1.18	0.78	0.50	0.50	0.36	0.21	0.15	0.08
气关式 Gas off	20-100Kpa	2.23	2.14	0.87	0.56	0.36	0.34	0.22	0.14	0.14	0.1	0.06	0.03	0.02
	40-200Kpa	6.40	6.40	5.86	3.64	2.30	2.21	1.43	0.91	0.91	0.66	0.37	0.25	0.20
	80-240Kpa	6.40	6.40	6.40	5.04	3.18	3.06	1.98	1.26	1.26	0.92	0.52	0.47	0.35
电动执行机构 Electric actuator		金属密封允许压差 (Mpa) Metal seal allows differential pressure (Mpa)												
推力 (N) Thrust (N)	800	2.38												
	2000	4.77	3.05	1.86	1.19	0.76								
	3000			2.79	1.79	1.14								
	5000			4.66	2.98	1.91	1.13	0.6	0.47					
	6500						1.35	0.8	0.57	0.39	0.26	0.16		
	10000									0.61	0.42	0.20	0.15	
	16000									0.97	0.67	0.35	0.12	0.09

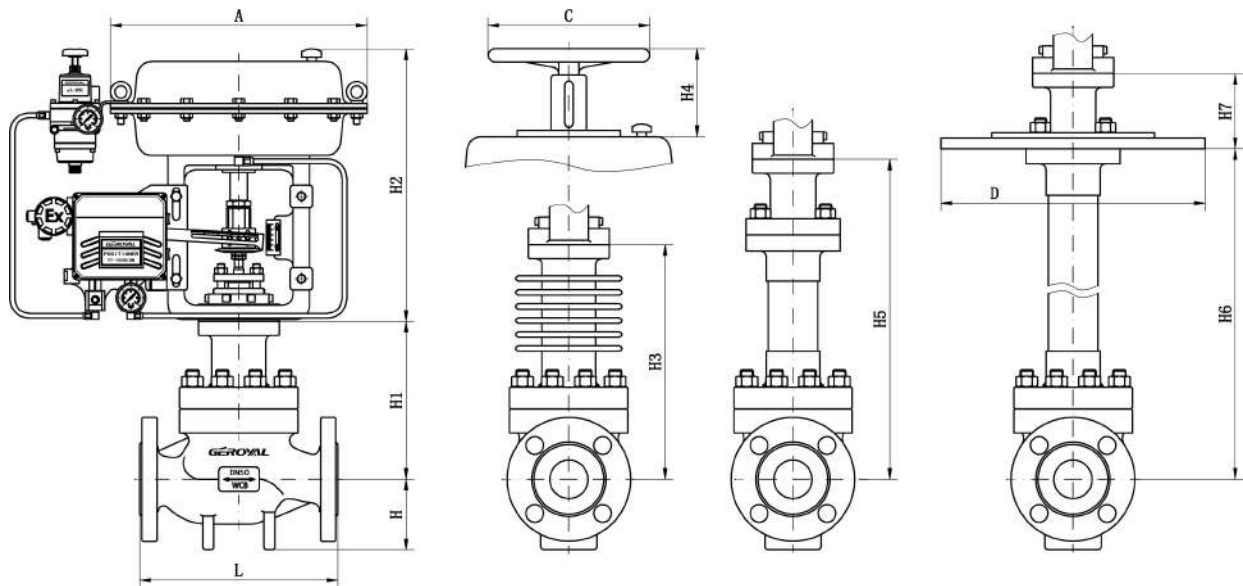
执行机构参数 Executing agency

形式 Form	型号 Model	气动薄膜执行机构 Pneumatic actuator	电子式电动执行机构 Electronic electric actuator
		ZH22 ~ ZH56	3810L RSL
		多弹簧型 Multi spring type	智能一体化型 Intelligent integration
用途 Use		调节 Regulating、开关 Switch	调节 Regulating
驱动 Drive		气压 pressure (弹簧范围 range of spring) 140 (20 ~ 100) Kpa G 240 (40 ~ 200) Kpa G 280 (80 ~ 240) Kpa G	电源 Power Supply : AC 220 V ±10% 50Hz 电源 Power Supply : AC 380 V ±10% 50Hz
接头 Joint		Rc 1/4	普通型 Popular type : 2-PF (G1/2") 隔爆型 Explosion proof type : 2-PF (G3/4")
正作用 Positive effect		气压增加推动阀门关闭 Air pressure increase to drive the valve close	控制信号增加推动阀门关闭 Control signal increase to drive the valve close
反作用 Reaction		气压增加推动阀门开启 Air pressure increase to drive the valve open	控制信号增加推动阀门开启 Control signal increase to drive the valve open
控制信号 Control signal		4 ~ 20mA.DC (带定位器 Tape locator)	输入输出 Input output 4 ~ 20mA.DC
滞后 Hysteresis		≤ 1% FS (带定位器 Tape locator)	≤ 0.8% FS
直线性 Linearity		2% FS (带定位器 Tape locator)	≤ ±1% FS
环境温度 Temperature		-10 ~ +70°C	
表面涂层 Surface coating		体 Body : 黑色磷化处理 Black phosphating treatment 执行器 Actuator : 丙烯酸聚氨酯漆 acrylic polyurethane enamel	
选配附件 Optional accessories		阀门定位器 Valve positioner 手轮 Handwheel 电磁阀 Solenoid valve 行程开关 Travel switch 保位阀 Position valve	加热器 Heater

性能 Performance

流量特性 Flow characteristics		等百分比 Equal percentage、直线 Straight line	
可调范围 Adjustable range		50:1	
额定 Cv 值 Rated Cv value		等百分比 The percentage etc : 10 ~ 1400 直线 Straight line : 11 ~ 1500	
允许泄漏量 Allowable leakage		硬密封 : IV级 (0.01% 阀额定流量) ; 软密封 : V级 Metallic seal : IV (0.01% valve rated flow) ; soft seal: v	
性能指标 Performance index	驱动方式 Driving mode	气动 Pneumatic	电动 Electric
	基本误差 Intrinsic error %	± 1.0	± 1.0
	回差 Return difference %	≤ 1.0	≤ 1.0
	死区 Dead zone %	≤ 0.6	≤ 1.0
	始终点偏差 Switch deviation %	± 2.5	± 2.5
	额定行程偏差 Deviation of stroke %	≤ 2.5	≤ 2.5

气动调节阀连接尺寸 Pneumatic regulating valve connection size



DN	20	25	32	40	50	65	80	100	125	150	200	250	300	
In	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	5	6	8	10	12	
L	PN16/25	181	184	200	222	254	276	298	352	410	451	600	650	700
	PN40	181	184	200	222	254	276	298	352	410	451	600	670	770
	PN64	210	210	210	251	286	311	337	394	440	508	650	690	800
H	PN16/25	52.5	57.5	75	75	85.5	92.5	100	110	142.5	158	170	195	230
	PN40	52.5	57.5	75	75	82.5	92.5	100	117.5	150	167.5	187.5	205	245
	PN64	65	40	85	85	90	102.5	107.5	125	172.5	195	207.5	230	260
H1	132	132	158	170	179	214	221	234	270	294	331	390	450	
H2	285	285	285	285	285	360	360	360	470	470	470	580	580	
H3	208	208	224	228	228	334	334	342	408	453	482	520	550	
H4	153	153	153	153	153	181	181	181	247	247	247	/	/	
H5	336	338	402	402	405	627	628	635	698	702	728	755	790	
H6	700 (根据实际温度定制)													
H7	88	88	88	88	88	95	95	95	95	110	110	140	140	
D	310	310	355	355	390	430	465	520	585	660	770	890	950	
A	200	200	200	200	200	240	240	240	350	350	350	450	450	
C	282	282	282	282	282	360	360	360	470	470	470	650	650	
法兰 Flange	可执行: GB、HG、JB、DIN、JIS、ANSI 等相应标准 Executable: GB、HG、JB、DIN、JIS、ANSI Corresponding standard													

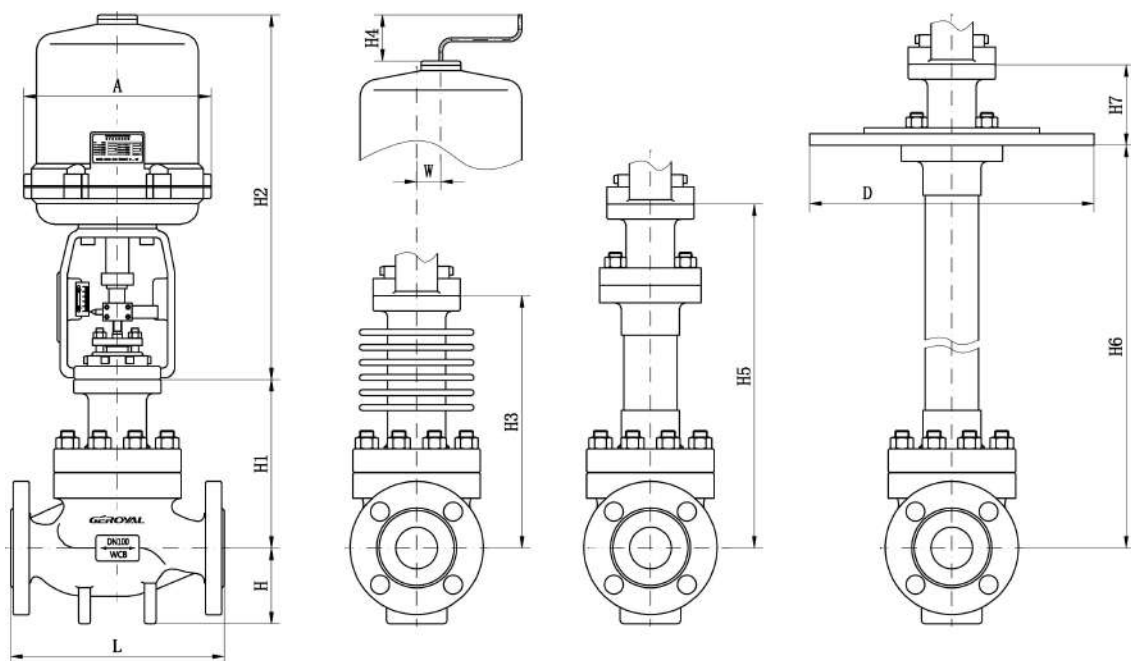
注: 1、表中尺寸为不带附件标准数据, 附件尺寸根据实际配置计算。

The size of the table is not the standard data of the accessories, the size of the accessory is calculated according to the actual configuration.

2、由于产品的技术创新与改进, 尺寸可能会有所变化, 最新资料请联系 GEROYAL 公司索取。

Due to the technical innovation and improvement of the product, the size may vary, please contact GEROYAL to obtain the latest information.

电动调节阀连接尺寸 Electric regulating valve connection size



DN	20	25	32	40	50	65	80	100	125	150	200	250	300	
In	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	5	6	8	10	12	
L	PN16/25	181	184	200	222	254	276	298	352	410	451	600	640	880
	PN40	181	184	200	222	254	276	298	352	410	451	600	640	880
	PN64	210	210	210	251	286	311	337	394	440	508	650	810	950
H	PN16/25	52.5	57.5	75	75	85.5	92.5	100	110	142.5	158	170	195	230
	PN40	52.5	57.5	75	75	82.5	92.5	100	117.5	150	167.5	187.5	205	245
	PN64	65	40	85	85	90	102.5	107.5	125	172.5	195	207.5	230	260
H1	132	132	158	170	179	214	221	234	270	294	331	390	450	
H2	373	373	456	456	538	538	548	548	725	725	725	795	795	
H3	208	208	224	228	228	334	334	342	408	453	482	520	550	
H4	90	90	90	90	90	90	90	90	90	90	90	90	90	
H5	336	338	402	402	405	627	628	635	698	702	728	755	790	
H6	700 (根据实际温度定制)													
H7	88	88	88	88	88	95	95	95	95	110	110	140	140	
D	310	310	355	355	390	430	465	520	585	660	770	890	950	
A	225	225	225	255	255	255	255	255	310	310	310	350	350	
法兰 Flange	可执行：GB、HG、JB、DIN、JIS、ANSI 等相应标准 Executable：GB、HG、JB、DIN、JIS、ANSI Corresponding standard													

注：1、表中尺寸为不带附件标准数据，附件尺寸根据实际配置计算。

The size of the table is not the standard data of the accessories, the size of the accessory is calculated according to the actual configuration.

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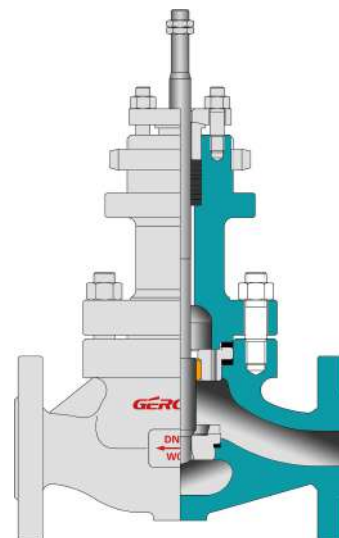
我们的 880L 超小流量针式调节阀是一种顶导向单阀座调节阀，具有结构简单、密封性能好、使用可靠等特点。有效而足够的顶部导向系统克服小开度时的震动，有效使用寿命更长。更小的流量系数选择增加了该阀的使用。可选择多弹簧气动薄膜机构或电动执行机构等。

Our 880L ultra small flow needle valve is a kind of top guide single seat valve, it has a simple structure, good sealing performance, reliable use and so on. The top guide system is effective enough to overcome the small opening shock, effective and long service life. A smaller flow coefficient is chosen to increase the use of the valve. Multi spring pneumatic film mechanism or electric actuator can be selected.

产品特点 Product features

本阀是采用 GEROYAL 原厂技术，专业针对小流量场合自主研发的一款产品。阀体体积小，重量轻，内螺纹结构更加便于安装及拆卸。整体具有体积小、重量轻、性能高、用于微小流量的精确控制等特点。调节不干净介质时，应针对其节流间隙小的问题，注意预防堵卡现象的发生。特别适用于液体、蒸汽等介质的主流量调节场合。

The valve is the use of GEROYAL technology, professional development of a small flow of the operating conditions of a product. The body is small in size and light in weight, and the inner screw thread structure is more convenient to be installed and disassembled. The whole body has the characteristics of small size, light weight, high performance and precise control of micro flow. Does not apply to the medium of the more dirty occasions, adjusting the media containing granular media, should be aimed at the problem of small throttle clearance, pay attention to prevent the occurrence of blocking card phenomenon. Especially suitable for liquid, steam and other media in the mainstream of the regulation.



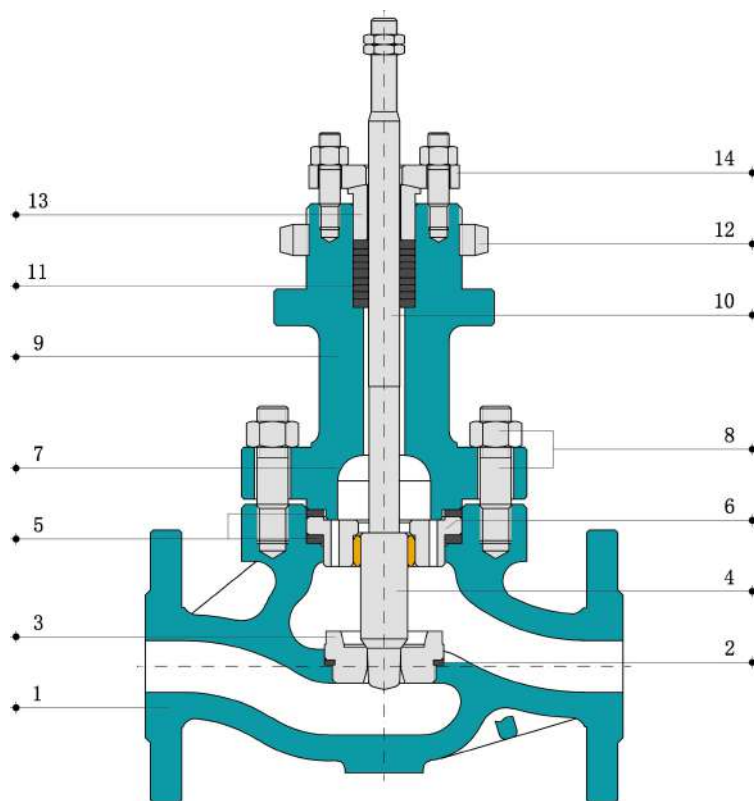
技术参数 Technical parameters

- | | |
|---|---|
| ● 阀体形式：直通式锻造阀体 | Body form : Straight through type forging valve body |
| ● 阀芯形式：非平衡式单座阀芯 | Spool form : Non balance type single seat valve |
| ● 公称通径：DN8~25 NPS 1/4"~ 1" | Nominal diameter : DN8~25 NPS 1/4"~ 1" |
| ● 公称压力：PN1.6~ 32.0MPa ; CALSS 150 ~ 1500 LB | Nominal pressure : PN1.6 ~ 32.0MPa ; CALSS 150 ~ 1500 LB |
| ● 适用温度：-196 ~ +650°C (按工矿可选) | Applicable temperature : -196 ~ +650°C (Optional) |
| ● 连接形式：螺纹、焊接、法兰 | Connection form : Flange, welding, screw thread |
| ● 法 兰 距：符合 IEC 60534、非标定制 | Flange distance : Meet IEC 60534、Non-standard customization |
| ● 压盖形式：螺栓压紧式 | Gland form : Bolt pressing type |
| ● 密封垫片：金属石墨垫片、聚四氟乙烯 | Sealing gasket : Metal graphite gasket, PTFE |
| ● 填 料：聚四氟乙烯、柔性石墨 | Seal up : PTFE, flexible graphite |
| ● 执 行 器：气动执行器、电动执行器 | Actuator : Pneumatic actuator, electric actuator |

设计特色 Design features

- | | |
|----------------------|--|
| ● 小开度范围内可连续调节 | The small opening range can be adjusted continuously |
| ● 采用顶部导向结构，抗震动 | The top guide structure, anti vibration |
| ● 阀芯采用锥面密封，密封效果好 | The valve cone seal, the sealing effect is good |
| ● 阀芯多元化设计，调节性能好 | Multi word design, good adjustment performance |
| ● 阀芯阀座喷焊硬质合金，耐冲蚀，寿命长 | Valve seat spray welding hard alloy, corrosion resistance, long life |
| ● 体积小，重量轻、便于安装 | Small size, light weight, easy to install |
| ● 电气执行器可互换安装 | The actuator mounted interchangeable |

结构与材料 Structure and materials



表一：本体材质为碳钢 Table 1 : Carbon steel valve body

1	阀体 Body	WCB	LCB	WC9
2	垫片 Shim	316+石墨 Graphite / FTFE		
3	阀座 Seat	304	304	304
4	阀芯 Spool	304	304	304
5	垫片 Shim	316+石墨 Graphite / FTFE		
6	导向套 Guide sleeve	304	304	304
7	铜套 Copper sleeve	Cu / 316L		
8	螺丝 Screw	304	304	304
9	阀盖 Valve cover	WCB	LCB	WC9
10	阀杆 Valve stem	304	304	304
11	填料 Packing	石墨 Graphite / FTFE		
12	锁紧螺母 Lock nut	304	304	304
13	压套 Pressing ring	304	304	304
14	压板 Plate	304	304	304

表二：本体材质为不锈钢 Table 2 : Stainless steel body

1	阀体 Body	CF8	CF8M	CF3M
2	垫片 Shim	316+石墨 Graphite / FTFE		
3	阀座 Seat	304	316	316L
4	阀芯 Spool	304	316	316L
5	垫片 Shim	316+石墨 Graphite / FTFE		
6	导向套 Guide sleeve	304	316	316L
7	铜套 Copper sleeve	Cu / 316L		
8	螺丝 Screw	304	316	316L
9	阀盖 Valve cover	CF8	CF8M	CF3M
10	阀杆 Valve stem	304	316	316L
11	填料 Packing	石墨 Graphite / FTFE		
12	锁紧螺母 Lock nut	304	316	316L
13	压套 Pressing ring	304	316	316L
14	压板 Plate	304	316	316L

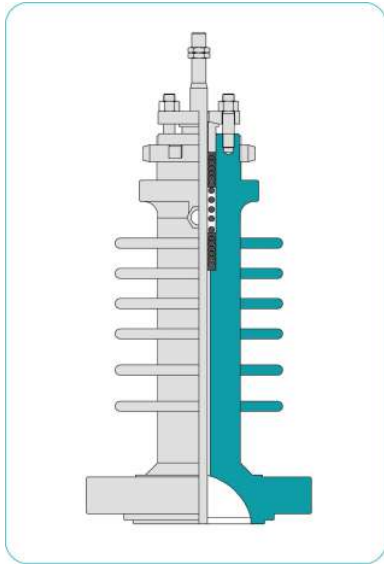
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The above parameters for the standard configuration, soft seal can be specially made to order 6 seal. Valve inner part capable of providing spray welding hard alloy.

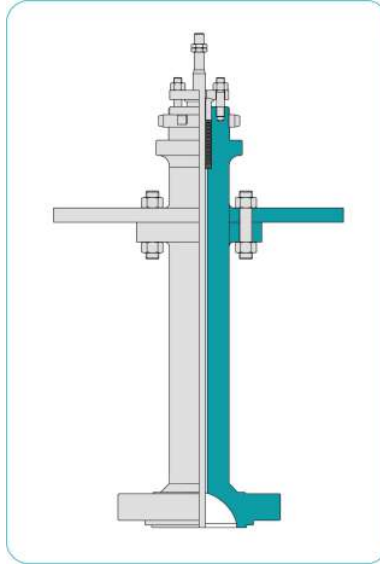
2、常规材质为碳钢和不锈钢两种，可根据用户现场条件订制特殊材质控制阀产品。

Conventional materials for carbon steel and stainless steel two, according to the user site conditions custom special material control valve products

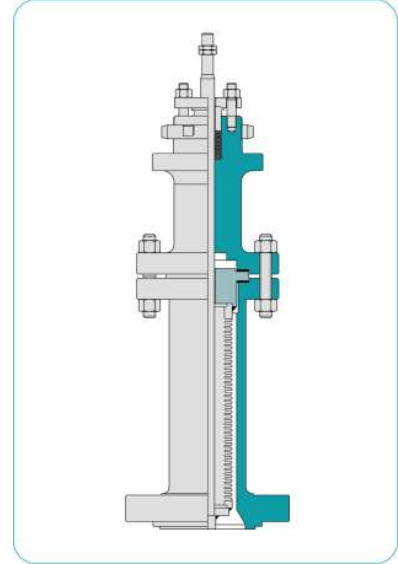
可应用于不同工况的结构 Can be applied to different conditions of the structure



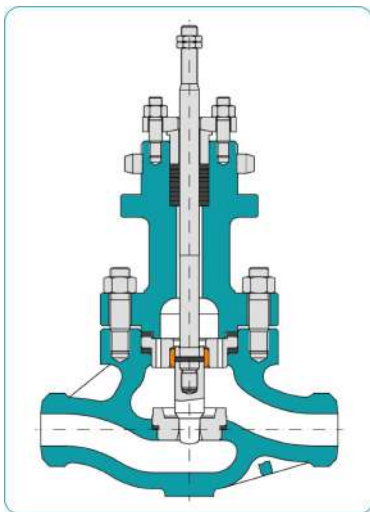
高温型 High temperature type
适用介质：蒸汽、热油等
Medium: Steam, hot oil etc.
适用温度：+250 ~ 550°C
Temperature : +250 ~ 550°C



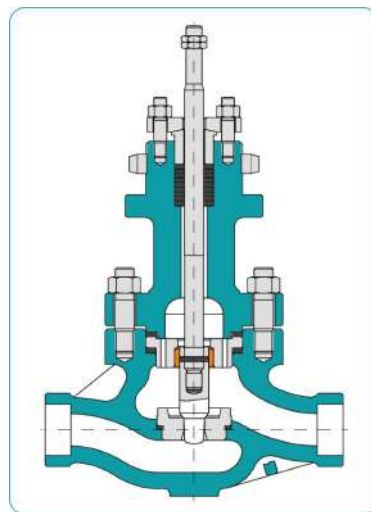
低温型 Low temperature type
适用介质：液氮、液氧等
Medium: Liquid nitrogen etc.
适用温度：-70 ~ -196°C
Temperature : -70 ~ -196°C



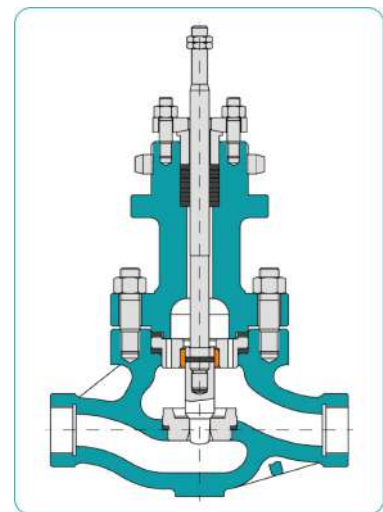
波纹管型 Corrugated pipe type
适用介质：易燃易爆气体、有毒液体、腐蚀性介质等
Medium: Inflammable and explosive gas, Toxic liquid, Corrosive medium etc.



对焊连接：BW
Butt welding : BW



承插焊连接：SW
Socket welding joint : SW



内螺纹连接：G
Pipe thread connection : G

规格参数 Specification parameter

流量系数 (CV) Flow coefficient	等百分 Percent					0.25	0.1	0.4	0.63	1.0
	直线 Straight line	0.01	0.04	0.1	0.16	0.25	0.1	0.4	0.63	1.0
口径 DN (in)	行程 trip	可选流量系数 CV (★符合 IEC ●推荐) Optional flow coefficient CV (★Conform to IEC ●Recommend)								
8 1/4"	16mm 25mm	●	●	●	●	●	●	★	★	★
10 3/8"		●	●	●	●	●	●	★	★	★
15 1/2"		●	●	●	●	●	●	★	★	★
20 3/4"		●	●	●	●	●	●	★	★	★
25 1"		●	●	●	●	●	●	★	★	★
配用执行机构 Actuator		气动执行器 Pneumatic actuator: ZHA/B; 电动执行器 Electric actuator: 3810、PSL								

执行机构参数 Executing agency

形式 Form	型号 Model	气动薄膜执行机构 Pneumatic actuator	电子式电动执行机构 Electronic electric actuator
		ZH23 ~ ZH56	3810L RSL
		多弹簧型 Multi spring type	智能一体化型 Intelligent integration
用途 Use		调节 Regulating、开关 Switch	调节 Regulating
驱动 Drive		气压 pressure (弹簧范围 range of spring) 140 (20 ~ 100) Kpa G 240 (40 ~ 200) Kpa G 280 (80 ~ 240) Kpa G	电源 Power Supply : AC 220 V ±10% 50Hz 电源 Power Supply : AC 380 V ±10% 50Hz
接头 Joint		Rc 1/4	普通型 Popular type : 2-PF (G1/2") 隔爆型 Explosion proof type : 2-PF (G3/4")
正作用 Positive effect		气压增加推动阀门关闭 Air pressure increase to drive the valve close	控制信号增加推动阀门关闭 Control signal increase to drive the valve close
反作用 Reaction		气压增加推动阀门开启 Air pressure increase to drive the valve open	控制信号增加推动阀门开启 Control signal increase to drive the valve open
控制信号 Control signal		4 ~ 20mA.DC (带定位器 Tape locator)	输入输出 Input output 4 ~ 20mA.DC
滞后 Hysteresis		≤ 1% FS (带定位器 Tape locator)	≤ 0.8% FS
直线性 Linearity		2% FS (带定位器 Tape locator)	≤ ±1% FS
环境温度 Temperature		-10 ~ +70°C	
表面涂层 Surface coating		体 Body : 黑色磷化处理 Black phosphating treatment 执行器 Actuator : 丙烯酸聚氨酯漆 acrylic polyurethane enamel	
选配附件 Optional accessories		阀门定位器 Valve positioner 手轮 Handwheel 电磁阀 Solenoid valve 行程开关 Travel switch 限位阀 Position valve	加热器 Heater

性能 Performance

流量特性 Flow characteristics	等百分比 Equal percentage、直线 Straight line
可调范围 Adjustable range	30:1
额定 Cv 值 Rated Cv value	0.01 ~ 1.0
允许泄漏量 Allowable leakage	泄漏量标准 Leakage standard : GB/T4213