

Single-seated Control Valve



Product Introduction:

As a commonly used high-precision control valve in industrial automation control systems, the single-seat control valve adopts a top-guided structure and is equipped with a multi-spring actuator. It features compact structure, light weight, sensitive action, S-shaped streamlined fluid channel, small pressure drop loss, large valve capacity, accurate flow characteristics and easy disassembly. Made of carbon steel, stainless steel, etc., some can adopt lining technology to enhance corrosion resistance. It is widely used in petroleum, chemical, power, metallurgy, water supply and drainage industries for precise regulation of various media.

Product Features:

- Strong high-temperature adaptability: Optional extended valve stem increases the distance between the actuator and high-temperature medium for better heat dissipation; hard seal adopts Stellite overlay alloy seal ring, with high temperature resistance up to 350°C.
- High regulation precision: Integrated design of valve stem and ball core effectively solves mechanical backlash, with rotation error $\leq 0.35\%$ to ensure regulation accuracy.
- Reliable sealing performance: Hard seal structure with high-quality alloy seal ring ensures tight sealing and small leakage, suitable for harsh high-pressure and high-temperature working conditions.
- Stable and durable operation: Integrated structure improves mechanical strength, reduces component wear, extends service life and lowers maintenance costs.

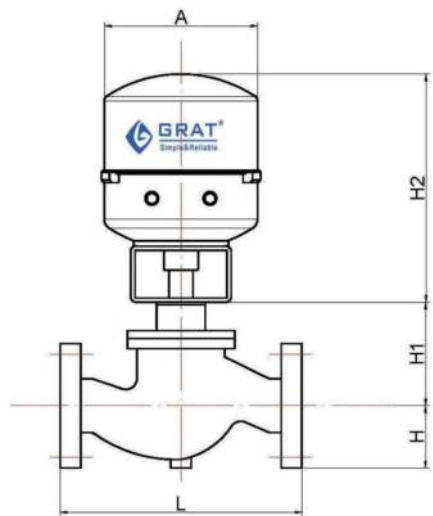
Single-Seated Electric Control Valve

Product Description

Single-seat regulating valve adopts top-guided structure with multi-spring actuator. It features compact design, light weight, sensitive action, S-shaped flow passage, low pressure drop, large flow capacity, accurate flow characteristic and easy installation. Widely used for precise control of gas, liquid and other media.

Main Performance Specifications

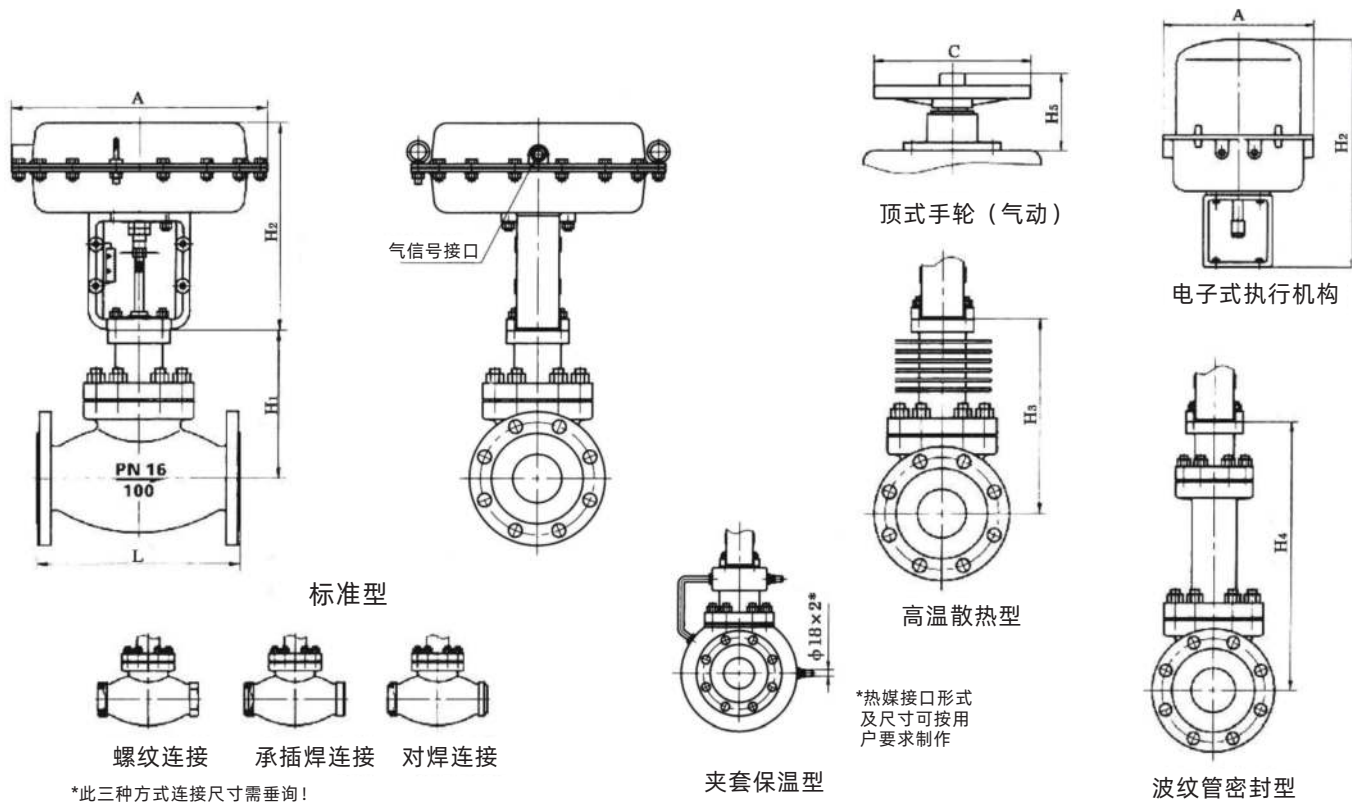
- Nominal Diameter: DN20~DN200
- Nominal Pressure: 1.6MPa~6.4MPa
- Medium Temperature: ≤350°C
- Protection Class: Ip67
- Applicable Media: Food, grease, fibrous fluid
- Manufacturing Standard: GB/T 12238-2008
- Face-to-Face Standard: GB/T 12221-2005
- Test Standard: GB/T 13927-2022
- Flange Standards: GB/T 9124.1-2019, GB/T 17241.6-2008



Size(mm)		20	25	32	40	50	65	80	100	125	150	200
L	PN16~40	150	160	180	200	230	290	310	350	400	480	600
	PN64~100	205	210	230	251	286	311	337	394	450	508	650
H	PN16~40	52	57	75	75	82	92	100	117	150	167	187
	PN64~100	66	70	85	85	90	103	108	125	173	195	208
H1		125	125	155	155	165	200	205	210	275	330	372
A*H2		Φ225*370			Φ255*500			Φ310*700			Φ310*750	
Weight (kg) PN16		20	21	24	33	37	65	68	56	118	145	215
Weight (kg) PN64		23	24	32	44	53	76	81	100	156	178	265

Single-Seated Pneumatic Control Valve

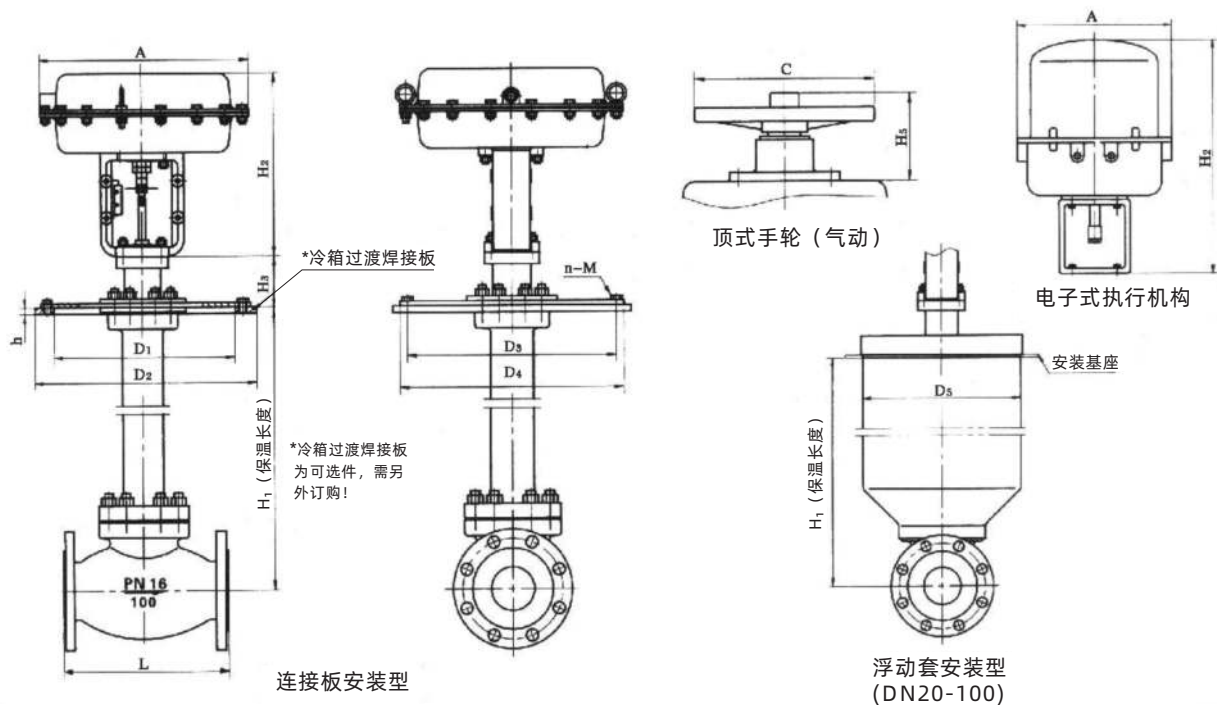
标准型、散热性、波纹管密封型、夹套保温型外形尺寸及重量



Size(mm)		20	25	32	40	50	65	80	100	125	150	200
L	PN16~40	150	160	180	200	230	290	310	350	400	480	600
	PN64~100	206	210	230	251	286	311	337	394	450	508	650
H ₂		125	125	155	155	165	200	205	210	275	330	372
A×H ₂	Pneumatic	Φ282*260			Φ308*282			Φ394*362			Φ498*436	
	Electric	Φ225*370			Φ255*500			Φ310*700			Φ310*750	
H ₃		212	212	222	226	230	335	335	345	414	456	478
H ₄		326	326	394	394	398	605	605	618	688	690	708
C×H ₅		Φ220*180					Φ270*240			Φ320*315		
Jacketed Flange Dimensions DH ₂		40	40	50	65	80	100	125	150	200	250	300
Weight (Kg)	PN16	20	21	24	33	37	65	68	56	118	145	215
	PN64	23	24	32	44	53	76	81	100	156	178	265

Note: Table weights are for standard pneumatic units excluding handwheels and other accessories. Electric actuators adopt 3610 series.

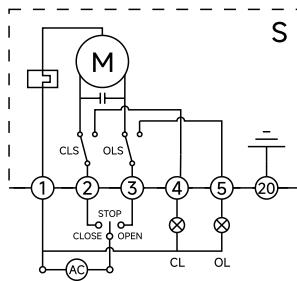
Single-Seated Pneumatic Low-temperature Control Valve



Size(mm)		20	25	32	40	50	65	80	100	125	150	200
L、A×H2		见表一										
H1		700										
H3		92					96			115		
ΦD1	PN16~40	230	230	250	270	305	342	375	430	490	556	665
	PN64~100	270	270	305	342	375	430	492	556	665	665	765
ΦD2	PN16~40	310	310	335	355	390	430	465	520	585	660	770
	PN64~100	355	355	390	430	465	520	585	600	770	770	890
h		12					15			18		
	PN16~40	260	260	285	305	340	370	405	460	525	590	700
	PN64~100	305	305	340	370	405	460	525	590	700	700	805
	PN16~40	290	290	315	335	370	400	435	490	555	630	740
	PN64~100	335	335	370	400	435	490	555	630	740	740	845
D5		Φ285					Φ470			Φ115		
n-M		8-M12			8-M14		10-M14	10-M14	12-M16	14-M16	16-M16	18-M16
C×H5		Φ220×182					Φ270×240			Φ320×315		
重量 (Kg)		24	25	28	36	45	68	73	88	162	176	284

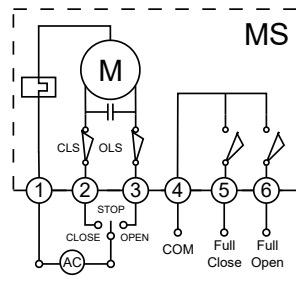
Note: Heat preservation length: 700mm. Weights shown are for standard PN16 pneumatic units excluding handwheels and other accessories.

Circuit Diagram



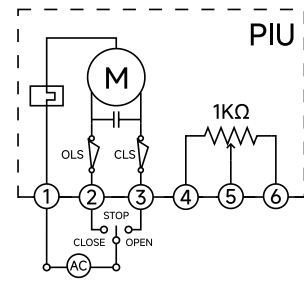
S

Switching Action Mode:
Switching operations (open/close) are achieved via AC switching signals, and a set of active position signals indicating fully open/fully closed status are output.



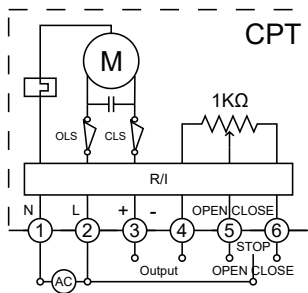
MS

Switching Action Mode: Outputs passive contact signals.
Structure: Equipped with two intermediate position switches.



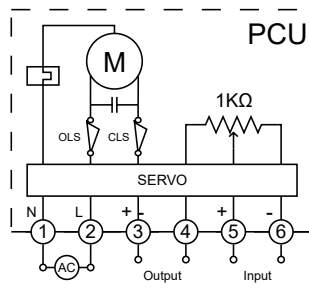
PIU

Switching Action Mode: Outputs 0~1000Ω feedback signal.
Structure: Equipped with 500Ω or 1kΩ potentiometer.



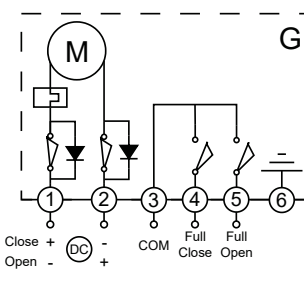
PCU

Regulating Action Mode: Accepts 4~20mA control signal input and outputs 4~20mA valve position feedback signal.
Structure: Integrated with 1kΩ potentiometer and control module (servo amplifier).



CPT

Switching Action Mode: Outputs 4~20mA valve position feedback signal.
Structure: Equipped with 1kΩ potentiometer and R/I converter.

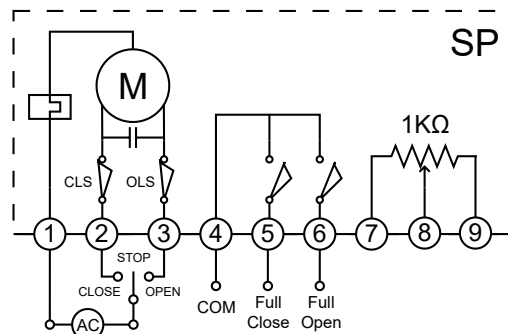


G

DC switching signals are output from the circuit via an external DC power supply to control the opening/closing program, and a set of passive contact signals corresponding to fully open/fully closed positions are provided.

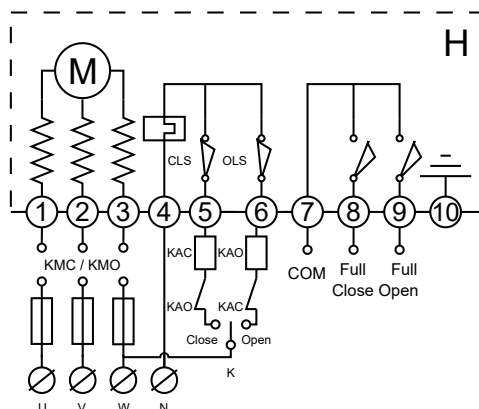
SP

Switching Action Mode: Controls valve opening angle via switching circuit, corresponding to potentiometer resistance value, while enabling intermediate position control function.
Structure: Integrated with potentiometer and intermediate position switch.



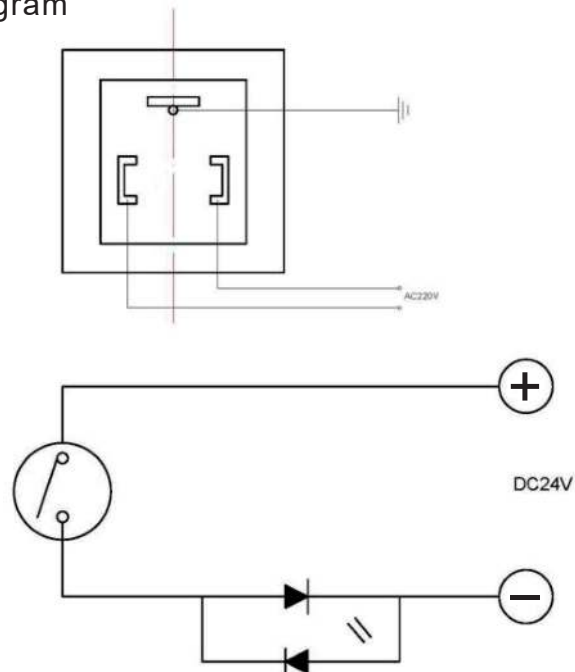
H

Three-phase AC switching signals are output through an external three-phase power phase-reversing circuit to control opening/closing operations, accompanied by a set of passive contact signals for fully open/fully closed position indication.

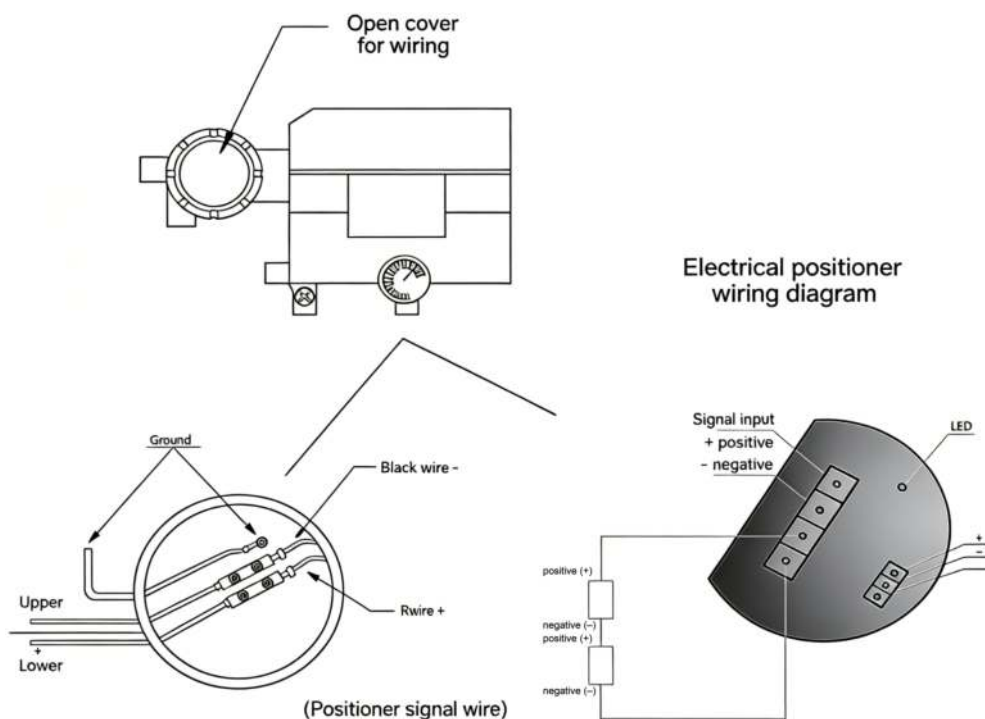


Pneumatic Valve Circuit Diagram

On-off Type Wiring Diagram



Regulating Type Wiring Diagram



Vision: Build more robust industrial automatic control systems

Mission: Make industrial automation technologies simpler and more reliable

Core Values: Simplify complexity, Continuous Innovation, Win-Win Collaboration



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