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Product category

- > Regulating valve
- > Switch valve
- > Actuator

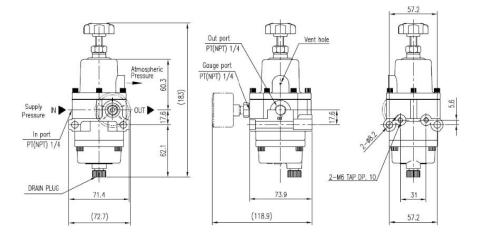
Pneumatic valve manual

Manufacturer: Wuhan Grat Control Valve Co.,Ltd Add: No.62,Guanggu Avenue, Wuhan,Hubei,China. Tel:0086-27-87771733 Fax:0086-27-86838049 Web:en.grat.com.cn

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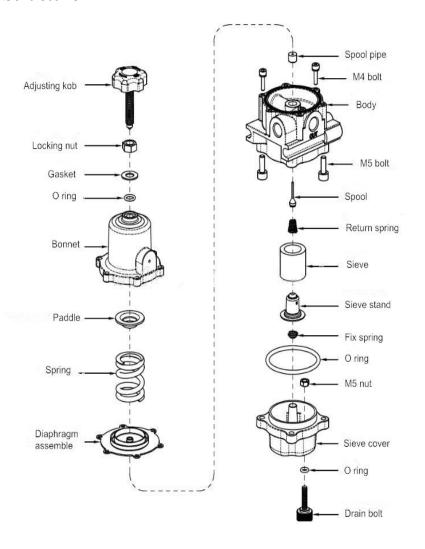
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Usage

- 1.To provide the pressure,rotate the adjusting screw clockwise to release the spring from pressure.
- 2. Install a pressure gauge on the port or outlet section .This pressure gauge displays the pressure that is output from the pressure relief valve after decompression.
- 3. The outlet and pressure gauge interface with a ball valve access interface to input air pressure.
- 4. Adjust the adjustment screw manually, and after the outlet pressure has risen to the set pressure, stop the adjustment screw and tighten the lock nut.

Structure

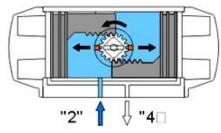


Pneumatic Actuator Instructions

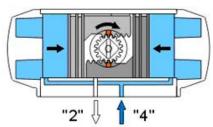
- ①Rack and pinion dual-piston symmetrical structure design, fast and smooth action, high precision, large output power, by simply changing the piston assembly position can be reverse rotation.
- ②Extruded high-quality aluminum alloy cylinder, the precision machining of the inner hole and the outer surface of the hard anodized (special circumstances anodized + Teflon coating), longer life, low coefficient of friction.
- ③The all-in-one design, all double acting and single acting actuator versions, has the same cylinder and end cap, making it easy to change the mode of operation by means of a spring or a spring.
- ①Combined pre-loaded safety spring set, whether in the assembly process or use the site, can be easily and safely install or increase or decrease the number of springs.
- ⑤ Two separate adjustment screws on the external side for the valve is already installed on the actuator is more accurate and convenient, the valve opening and closing valve position, for full stroke adjustment is also in the two end caps with long adjustment screw.
- ®VID / VIE3845, NAMUR standard slot, can install and output all accessories, such as limit switch box, electrical positioner, position sensor.
- The air source interface conforms to the NRMAR standard and can be directly installed with NUMAR standard solenoid valves
- ®The back of the rack composite bearings and piston guide ring and the output shaft bearings to prevent metal-to-metal friction, and increase lubrication, low friction, long life.
- (9) All fasteners are made of stainless steel, long-term corrosion resistance
- (11) Connection part in line with the new international standard ISO5211, DIN3337 (F03-F25) so that production interchangeability, versatility.

Working principle:

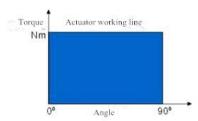
DA Double action:



When the air pressure from the air inlet (2) into the cylinder between the two pistons in the cavity, so that the separation of the two pistons to move the direction of the cylinder at both ends of the air chamber through the air port (4), while the two piston rack synchronization Drive the output shaft (gear) counter-clockwise



Into the air chamber at both enus of the cylinder, so that the two pistons to move the middle of the cylinder, the middle of the air chamber through the air port (2) discharge, while the two piston rack synchronous drive output shaft (gear) Clockwise rotation. (If the piston relative to the opposite direction of installation, the output shaft into reverse rotation, that is double-acting reversal DL type)



Air filter regulator instructions

Air filter regulator used in the pneumatic control valve, the main air pipe to receive the air source pressure, according to the set pressure after decompression, to the positioning device or other related products to send a stable gas supply pressure device.

Product features

The set pressure for positional stability is sensitive to the pressure setting. The use of die-cast aluminum, durable.Built-in 5 micron filter, you can filter the tiny particles in the gas source, and can be excluded through the drainage cover condensate.

Parameters

Item	Parameters
Max input pressure	15kgf/cm ² (231psi)
Max regulating pressure	8.4 kgf/cm ²
Air source interface	PT (NPT) 1/4
Pressure gauge interface	PT (NPT) 1/4
Temperature range	-20 °C ~70 °C
Minimum Filtration Size	5μm
Material	Die casting aluminum
Weight	0. 6kg

Power requirements

Model	Standard		Explosion proof		
Voltage	220V AC(±10%)	24V DC(±10%)	220V AC(±10%)	24V DC(±10%)	
Insulation class	F				
Power consumption	5.5VA	2.5W	4.4VA	5.0W	
Wiring	DIN		Extension(length 3m)		

Remark:

Eplosion-proof solenoid valve using domestic high-quality explosion-proof pilot valve, the product of China National Instrument Safety Supervision Station (NEPSI) issued by the explosion-proof certification. Installation, with the NEPSI identified with its parameters to match the explosion-proof or increased safety junction box.

Solenoid valve wiring Please note the distinction between positive and negative!

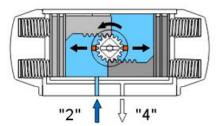
Lead mark:

Light brown for the phase line or positive

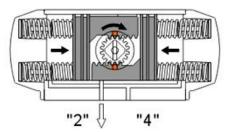
Blue is neutral or negative

Yellow-green for the ground wire

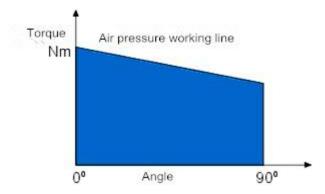
SR Single action working principle:

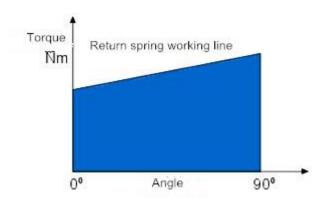


When the air pressure from the air inlet (2) into the cylinder between the two pistons in the cavity, so that the separation of the two pistons to move the direction of both ends of the cylinder, forcing the spring compression at both ends of the air chamber through the air port (4) So that the two piston rack synchronous drive output shaft (gear) counterclockwise rotation.



After the gas source pressure is changed by the electromagnetic valve, the two pistons of the cylinder move to the middle direction under the spring force of the spring, the air of the middle air chamber is discharged from the air port 2, and simultaneously the output shafts of the two pistons are driven, Clockwise rotation. (If the piston is installed in the opposite direction, the spring output when the output shaft to reverse rotation, that is, single-action reversal)





Working conditions:

- 1. Working medium: dry or lubricated air or non-corrosive gas, impurity particles in the medium is less than 30µm.
- 2. Air supply pressure: 2.5~8bar.
- 3. Medium ambient temperature: $-20^{\circ}\text{C} \sim +80^{\circ}\text{C}$.
- 4. Stroke adjustment: $0 \sim 90 \circ$ two positions have $\pm 5 \circ$ adjustment range
- 5. Use: indoor or outdoor.

Solenoid valve instructions:

- 1.Small size, large flow
- 2,Long life, more than 10 million times
- 3.Low power consumption
- 4. The seal without oil, the exhaust gas will not pollute the environment, can be used for food, medicine, electronics and other industries
- 5. With a manual operation button
- 6. There are two types of standard and explosion-proof. The explosion protection level is EExmIIT4-T6
- 7. Easy to connect, a tube and plate (NAMUR) two

Technical Parameters

Connection	Pipe connection type	Board type	
Working Medium	Dry and clean compressed air		
Working pressure(bar)	1.5-10.0		
Effective cross - sectional area (mm2)	19.0	36.0	
Ambient temperature	5-60°C (41-140°F)		
Response time	≤25ms	≤30ms	
Maximum operating frequency	5c/sec		
	3/2:P(1),A(2),R(3)-G1/4	P(1),R1(3),R2(5)-	
Pipe thread	5/2:P(1),A(2),B(4)-G1/4	G1/4	
	R1(3),R2(5)-G1/8	A(2),B(4)-Namur	