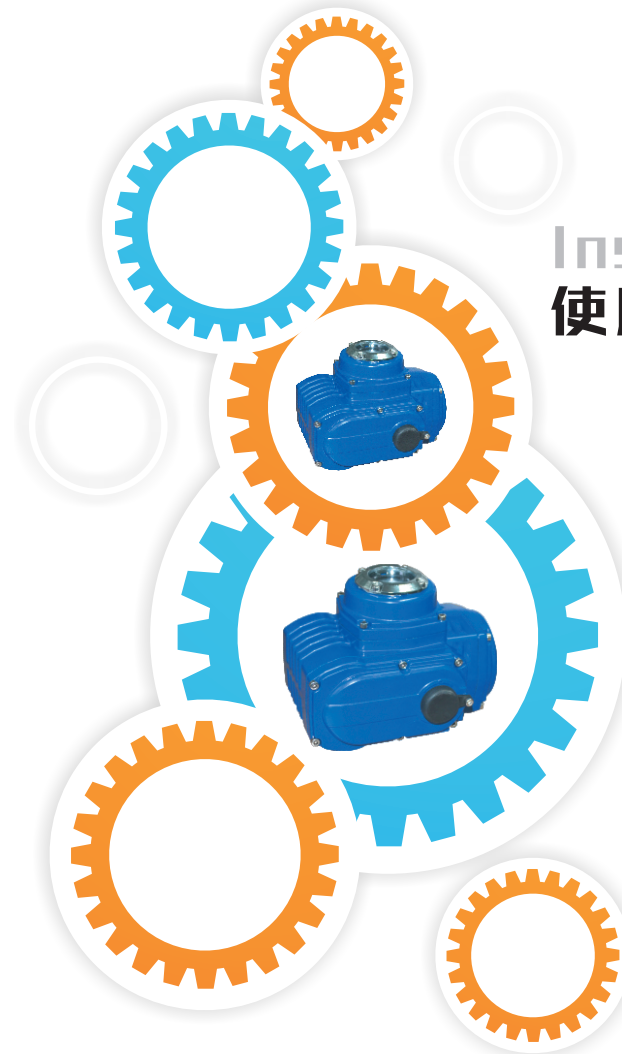


Instruction
使用说明书



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Plication selecting type of the electrical machine institution



序号 No.	名 称 Name	数量 Number	材 料 Material Science
1	电机盖 Motor cover	1	ADC12
2	电机转子轴 Motor Rotor Shaft	1	40Cr
3	箱体 Box	1	ADC12
4	防水接头 Waterproof joint	2	黄铜镀镍 Nickel plating on brass
5	O型密封圈 O-ring	1	丁氰橡胶 Nitrile Rubber

序号 No.	名称 Name	数量 Number	材料 Material Science
6	制御盖 Making Imperial Cover	1	ADC12
7	电装盖 Electrical cover	2	ADC12
8	O型密封圈 O-ring	1	丁腈橡胶 Nitrile Rubber
9	防水镜片 Waterproof lenses	2	
10	出力轴 Output shaft	1	40Cr镀镍 40Cr Nickel Plating

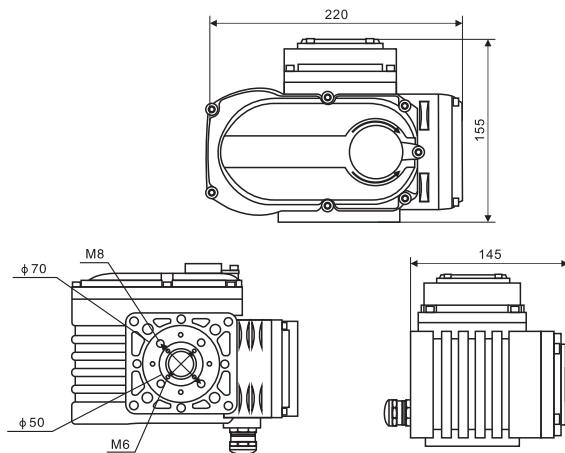
执行机构型号 Type	额定输出 扭矩Nm Amount exports the torsion	软密封蝶阀 (参考口径)	软密封蝶阀 (参考口径)	Related valve		通风蝶阀 (参考口径)
		AvailableSoft Sealed Butterfly Valve (Reference caliber)	AvailableSoft Sealed Ball Valve (Reference caliber)	可配 硬密封蝶阀 (参考口径) Hard Sealed Butterfly Valve (Reference caliber)	可配 硬密封球阀 (参考口径) Hard Sealed Ball Valve (Reference caliber)	Ventilation butterfly valve (reference caliber)
05	50	DN15-65	DN15-32	DN40-50	DN15-25	DN50-150
10	100	DN80-100	DN32-50	DN65-100	DN32	DN200-300
15	150	DN125	DN50	DN125	DN40-50	DN350
20	200	DN150	DN65	DN125	DN50	DN400-500
40	400	DN200	DN80-100	DN150	DN65	DN600
60	600	DN200-250	DN100-125	DN200	DN80-100	DN700
100	1000	DN300	DN150	DN250	DN125	DN800-900
200	2000	DN400	DN200	DN350	DN150	DN1000-1200

05 Series Outward Size Performance Parameters



10、15、20系列外型尺寸与性能参数

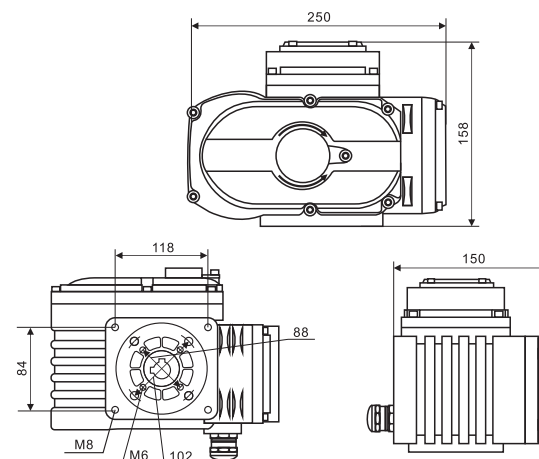
Exterior Size and Performance Parameters of Series 10, 15 and 20



参数 parameter 性能 performance	型号 Model 电源 Power Supply	10				15			20	
		AC24V	AC110V	AC380V	AC220V	AC24V	AC380V	AC220V	AC380V	AC220V
电机功率 Motor power		25W	25W	15W	25W	40W	30W	40W	30W	40W
额定电流 Rated current		2.12A	0.57A	0.10A	0.3A	0.63A	0.19A	0.35A	0.19A	0.40A
标准时间/力矩 Standard Time/Torque		27S/100Nm				27S/160Nm			27S/200Nm	
回转角度范围 Rotary Angle Range		0-90° 可调 Adjustable								
可选控制电路 Optional control circuit		A型标准型 S型无源型 R型开度信号 P型调节型 A-type Standard S-type Passive R-type Opening Signal P-type Regulation								
整机重量 Weight		5.0kg				5.2kg			5.5kg	
绝缘电阻 insulation resistance		AC24V:100MΩ/250VDC, AC110V/AC220V/AC380V; 100MΩ/500VDC								
耐压等级 Voltage withstanding grade		AC24V:500V AC 1分钟Minute、AC110V/AC220V; 1500V AC 1分钟Minute、AC380V; 1800V AC 1分钟Minute								
防护等级 Protection Level		IP65(特殊定制IP67/IP68) IP65 (Special Customized IP67/IP68)								
安装方法 Installation method		360° 任意角度安装 Arbitrary Angle Installation								
电气接口 Electrical interface		G1/2防水接头，使用时用户应根据所选电缆，加装相应的防水电缆接头 G1/2 waterproof connector. Users should install corresponding waterproof connector according to the selected cable.								
环境温度 ambient temperature		-20℃~+60℃								
选装功能 Selective function		除湿加热器 Desiccant heater								

40、50、60系列外型尺寸与性能参数

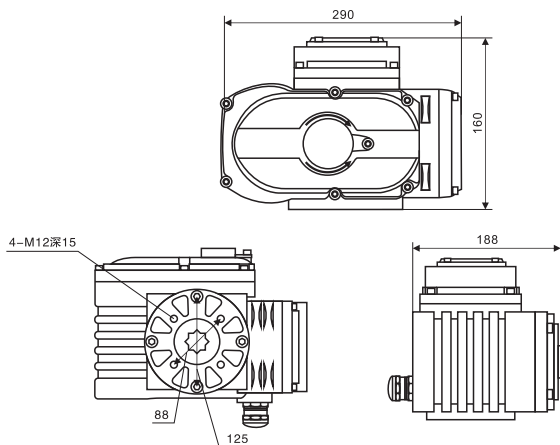
Size and Performance Parameters of 40, 50 and 60 Series



参数 parameter 性能 performance	型号 Model 电源 Power Supply	40		50		60	
		AC220V	AC380V	AC220V	AC380V	AC220V	AC380V
电机功率 Motor power		50W	30W	90W	40W	90W	40W
额定电流 Rated current		0.5A	0.19A	0.75A	0.29A	0.75A	0.29A
标准时间/力矩 Standard Time/Torque		30S/400Nm		30~60S/500Nm		30S/600Nm	
回转角度范围 Rotary Angle Range		0~90° 可调 Adjustable					
可选控制电路 Optional control circuit		A型标准型 S型无源型 R型开度信号 P型调节型 A-type Standard S-type Passive R-type Opening Signal P-type Regulation					
整机重量 Weight		7.6kg		7.8kg		7.9kg	
绝缘电阻 insulation resistance		100MΩ/500VDC (AC110V/AC220V/AC380V)					
耐压等级 Voltage withstanding grade		1500VAC/1分钟Minute (AC110V/AC220V/AC380V)					
防护等级 Protection Level		E-Bt4					
安装方法 Installation method		360° 任意角度安装 Arbitrary Angle Installation					
环境温度 ambient temperature		-20℃~+60℃ (其他温度可定做) (other temperatures can be customized)					
箱体材质 Cabinet material		铝合金压铸件 Aluminum alloy die casting					
选装功能 Selective function		除湿加热器 Desiccant heater					
防护等级 Protection Level		IP65(特殊定制IP67) IP65 (Special Customized IP67)					

100、200系列外型尺寸与性能参数

Exterior Size and Performance Parameters of Series 100 and 200

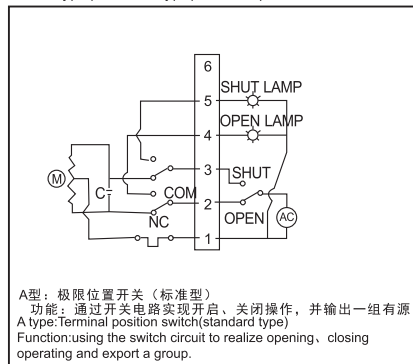


型号 Model	100				200	
参数 parameter	电源 Power Supply	AC24V	AC110V	AC220V	AC380V	
性能 performance						
电机功率 Motor power		120W				160W
额定电流 Rated current		9A	2.2A	1.12A	0.85A	1.2A 0.98A
标准时间/力矩 Standard Time/Torque		50S/1000Nm				50S/2000Nm
回转角度范围 Rotary Angle Range		0-90° 可调 Adjustable				
可选控制电路 Optional control circuit		A型标准型 S型无源型 R型开度信号 P型调节型 A-type Standard S-type Passive R-type Opening Signal P-type Regulation				
整机重量 Weight		12.2kg				12.8kg
绝缘电阻 Insulation resistance		100MΩ/500VDC (AC110V/AC220V/AC380V)				
耐压等级 Voltage withstanding grade		1500VAC/1分钟Minute (AC110V/AC220V/AC380V)				
防爆等级 Explosion-proof grade		E-Bt4				
安装方法 Installation method		360° 任意角度安装 Arbitrary Angle Installation				
环境温度 ambient temperature		-20℃~+60℃ (其他温度可定做) (other temperatures can be customized)				
箱体材质 Cabinet material		铝合金压铸件 Aluminum alloy die casting				
选装功能 Selective function		除湿加热器 Desiccant heater				
防护等级 Protection Level		IP65(特殊定制IP67) IP65 (Special Customized IP67)				

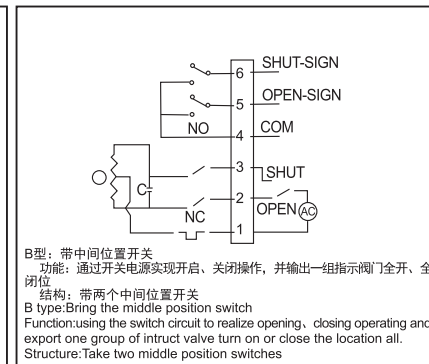
接线图

Wiring diagram

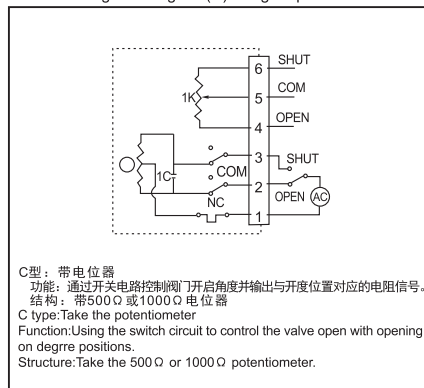
(1) AC220V开关型(标准型)线路图
switch type(standard type)route map



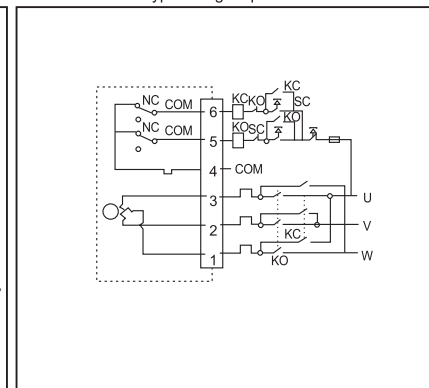
(2) AC220V无源触点型(S)线路图
Passive contact type wiring map



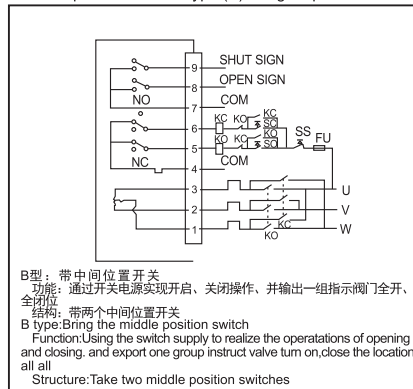
(3) AC220V开度信号(R)线路图
Make one degree of signals(R)wiring map



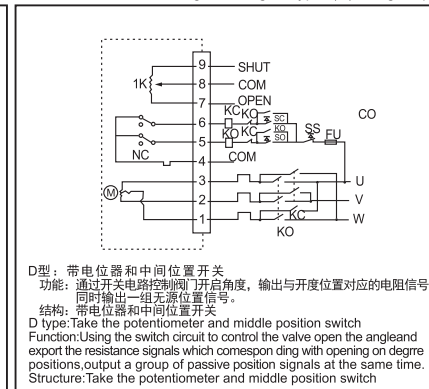
(4) AC380V标准型线路图
AC380V standard type wiring map



(5) AC380V无源触点型(S)线路图
AC380V passive contact type (S)wiring map



(6) AC380V开度信号型(R)线路图
AC380V turns on one degree of signal types(R)wiring map

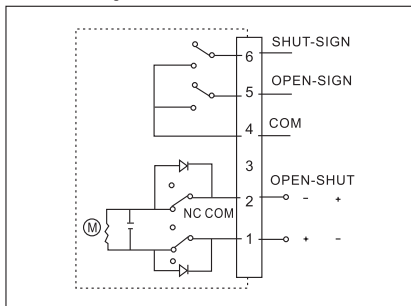


接线图

Wiring diagram

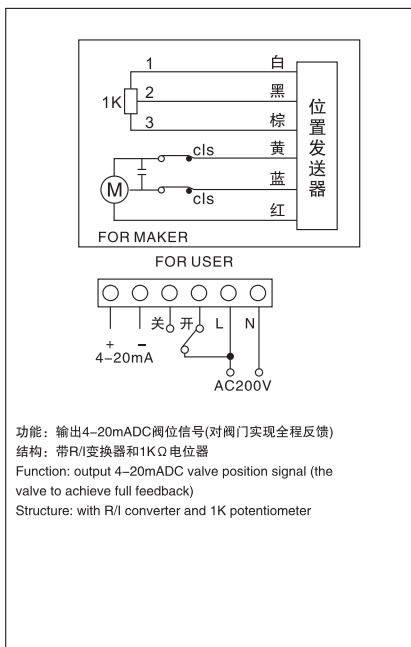
(7) 直流电路图

direct circuit diagram



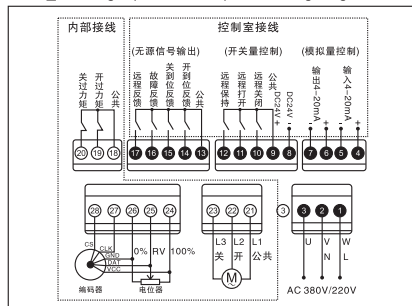
(9) AC220V带位置信号型(K型)

AC220V band position signal type (K type)



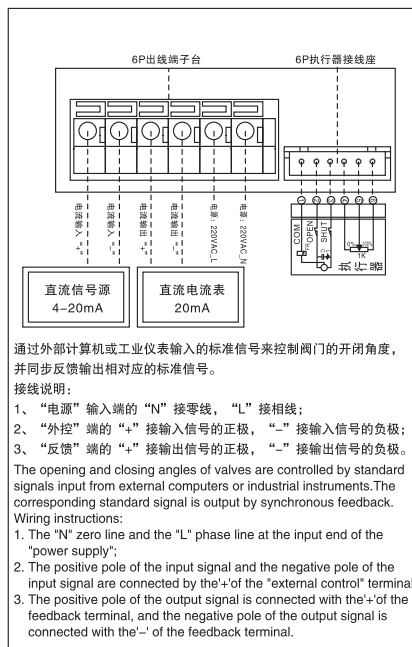
(8) KZQ_10L单相/三相接线图

KZQ_10L single-phase/three-phase wiring diagram



(10) 智能调节型线路图

Intelligent Regulating Circuit Diagram



使用要求

Requirements for use

1、安装环境 Installation environment

- 本产品、既可在室内安装,也可以室外安装。
- 本产品属非防爆产品,请注意避开易燃、易爆等环境。
- 在长期有雨水、原料等飞溅物和阳光直射的环境,需要安装保护整体的防护装置。
- 请预留接线、手动操作等维修空间。
- 周边环境温度-30~+60℃
- This product can be installed either indoors or outdoors.
- This product is a non-explosion-proof product, please pay attention to avoid flammable, explosive and other environments.
- In the long-term rainwater, raw materials and other splashes and direct sunshine environment, need to be installed to protect the whole. Protective device.
- Please reserve space for wiring, manual operation and other maintenance.
- Ambient temperature - 30 ~ + 60℃

2、工作介质温度 Working medium temperature

- 与阀门配套使用时,工作介质温度传到机体上面,机体温度会升高。
- 工作介质是高温时,与阀门连接的支架起减少热传导作用。
- 工作介质温度60℃以下时请选用标准支架。
- 工作介质温度60℃以上时请选用高温支架。
- When matching with the valve, the temperature of working medium is transmitted to the body, and the body temperature will rise.
- When the working medium is high temperature, the bracket connected with the valve reduces heat conduction.
- When working medium temperature is below 60℃, please choose standard bracket.
- When working medium temperature is above 60℃, please choose high temperature bracket.

3、电源的要求 Requirements for Power Supply

- 根据所订购机型使用电源的类型提供相应的现场供电。
- 对于现场的供电电源、电压应符合以下要求:
- According to the type of power supply used in the ordered model, the corresponding on-site power supply is provided.
- For on-site power supply and voltage should meet the following requirements:

AC380V ± 10% 50/60Hz AC220V ± 10% 50/60Hz
AC110V ± 10% 50/60Hz AC24V ± 10% 50/60Hz

4、短路开关保险丝的选用 Selection of Short Circuit Switch Fuse

电压 Voltage 安培 ampere				
	AC24V	AC110V	AC220V	AC380V
105	5A	3A	2A	2A
110/116	7A	5A	3A	2A
120/140/160	/	7A	5A	3A

执行机构与阀门的安装

Actuator and Valve Installation

1. 手动转动阀门，检查无异常情况，并使阀门处于全关位置。
2. 将支架固定在阀门上。
3. 将联轴器的一端套在阀门芯轴上。
4. 用手柄驱动电动执行机构至全关位置(指针正指SHUT、0刻度)，将输出轴插入联轴器四方孔内。
5. 紧固支架与电动执行机构和阀体间的连接螺栓。
6. 用手柄驱动执行机构全程，确认运行平稳、无偏心、无歪斜，检查阀门在执行机构开度指示范围能否实现全关和全开。

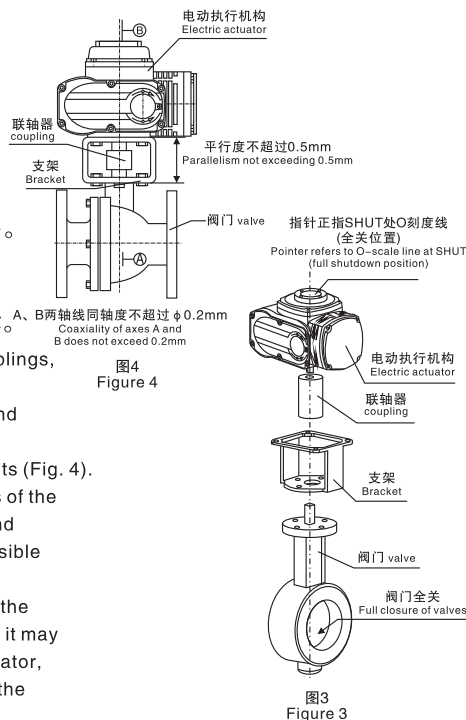
注意：用力不可过猛，否则会导致执行机构超程运行而造成损坏。

1. Turn the valve manually to check that there is no abnormal situation and keep the valve in full closed position.
2. Fix the bracket on the valve.
3. Put one end of the coupling on the valve mandrel.
4. Drive the electric actuator with the handle to the full shut-off position (pointer refers to SHUT, 0 scale), and insert the output shaft into the coupling. Inside the quadrangular hole.
5. The connecting bolt between the fastening bracket and the electric actuator and the valve body.
6. Drive the whole process of the actuator with a handle to ensure smooth operation, no eccentricity and no skew. Check that the valve opens in the actuator. Whether the degree demonstration perimeter can be fully closed or fully opened.

Note: Do not exert too much force, otherwise it will cause damage to the executing mechanism due to overrun operation.

特别提示 hot tip

- 对于自备支架、联轴器的用户，请注意；
- 支架、联轴器应由专业机构技术人员设计加工并应符合(图4)的标注要求。
- 联轴器两端轴孔的加工应保证必要的精度，尽可能消除传动间隙，以免阀门工作中出现回差。
- 应严格保证联轴器两端轴孔的位置度，否则有可能超出执行机构设计的工作范围，导致因执行机构行程无法调整而使阀门不能正常工作。
- For users of self-contained brackets and couplings, please note.
- The bracket and coupling shall be designed and processed by technical personnel of professional institutions and shall meet the labeling requirements (Fig. 4).
- The processing of the shaft holes at both ends of the coupling should ensure the necessary accuracy and eliminate the transmission clearance as far as possible so as to avoid the backlash in the valve operation.
- The position of the shaft holes at both ends of the coupling should be strictly guaranteed. Otherwise, it may exceed the working scope of the design of the actuator, leading to the valve not working properly because the actuator stroke can not be adjusted.



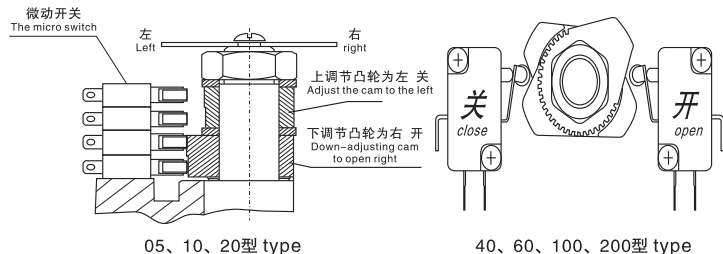
电动阀门的整机调试

Debugging of Electric Valve

1、电位限位的调整 Adjustment of Potential Limit

松开行程挡块的螺钉，用螺丝刀轻敲行程挡块，即可调整行程挡块的角度，从而改变电气限位的开闭角度。最后，切实紧固好行程挡块的螺钉。

Loosen the screw of the travel block and tap the travel block with a screwdriver to adjust the angle of the travel block, thereby changing the opening and closing angle of the electrical limit. Finally, tighten the screw of the travel block.



2、电位器的调整(开度型、智能型)

Potentiometer Adjustment (Open and Intelligent)

- a. 电位器的电阻值为1K Ω 、5K Ω 。
 - b. 用手柄转动阀门到全闭位置。
 - c. 松开电位器，转动电位器齿轮，用万能表测量4-5接线端子间的电阻值，使4-5间的电阻值到5 Ω 以下，紧固电位器固定螺钉。(如果是智能型的七线接插件连接时请测量对RV和RS两插孔的电阻值)
- 注：手动操作时，不能过分超出全开，全关的极限位置，转角过大，会导致其部件的损坏。

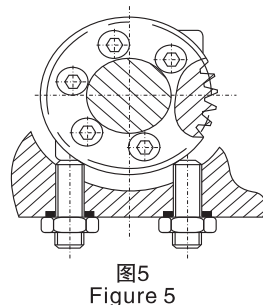
- a. The resistance of potentiometer is 1K Ω and 5K Ω .
- b. Turn the valve to the fully closed position with the handle.
- c. Loosen potentiometer, rotate potentiometer gear, measure resistance value between 4-5 terminals with universal meter, make resistance value between 4-5 below 5 Ω , tighten potentiometer fixing screw. (If it is an intelligent seven wire connector, please measure the resistance of RV and RS sockets)

Note: When operating manually, it is not allowed to exceed the limit position of full opening, full closing and excessive turning angle, which will lead to the damage of its components.

3、机械限位的调整 Adjustment of mechanical limit

松开机械限位螺钉的锁紧螺母，然后手动使执行器运动到全关的位置，旋转限位螺母，当其碰到时的扇形齿轮后停止转动，再旋出两圈，最后上紧锁紧螺母，这样就设定好了执行器全关时的机械限位的位置。全开时的位置可同样设定，如图5所示。

Loosen the locking nut of the mechanical limit screw, then manually make the actuator move to the full-closed position, rotate the limit nut, stop turning when it meets the sector gear of the time face, then rotate two times, finally tighten the locking nut, so as to set the position of the mechanical limit when the actuator is fully closed. The same position can be set at full turn-on, as shown in Fig. 5.



使用与维护

Use and Maintenance

1、维护与保养 Maintenance and Maintenance

由于使用了寿命长、耐压性好的高级钼基润滑脂，所以无需点检与加油。

在阀门的动作很稀少时，请定期驱动执行机构，检查有无异常。

Due to the use of high-grade molybdenum-based grease with long service life and good pressure resistance, there is no need for spot inspection and refueling. When the action of the valve is very scarce, please drive the actuator regularly to check if there is any abnormality.

2、故障与对策 Faults and Countermeasures

故障现象 Fault phenomena	原 因 Reason	对 策 Countermeasure
电机不启动 The motor does not start	没有接上电源 Not connected to the power supply	接好电源 Connect the power supply well
	断线、接头与端子脱离 Disconnection of Wire, Joint and Terminals	修理断线，正确连接紧固端子 Repair broken wires and connect tightening terminals correctly
	电源电压不对或电压过低 Power supply voltage is not right or too low	检查电压是否正常 Check if the voltage is normal
	过热保护动作(环境温度是否过高，阀门是否卡死) Overheat protection action (ambient temperature is too high, valve is jammed)	降低环境温度，用手动的方法检查阀门的开闭是否正常 Reduce ambient temperature and check valve opening and closing by manual method
	微动开关的动作不良 Bad operation of micro switch	更换微动开关 Replacement of Micro Switch
	启动运行电容不良 Poor startup capacitance	与生产厂家联系更换电容 Contact manufacturers to replace capacitors
开闭指示灯不亮 Turn on and off the light is not on	挡块调整不良 Bad block adjustment	再调整 Readjustment
运行到极限位置 电机不能停转 The motor can't stop when it runs to the limit position.	极限微动开关动作不良 Poor operation of limit micro-switch	更换微动开关 Replacement of Micro Switch
	三相交流电源相序接反 Inverse Phase Sequence Connection of Three-Phase AC Power Supply	调整三相交流电源相序 Adjusting Phase Sequence of Three-phase AC Power Supply
	微动开关接入控制回路错误 Error in Fretting Optical Access Control Circuit	调整接线 Adjust wiring
	机械限位超前电气限位动作 Mechanical Limiting Advance Electrical Limiting Action	按照机械限位挡块的调整说明，重新调整机械限位 Re-adjust the mechanical limit according to the adjustment instructions of the mechanical limit block
	伺服控制器调试不当 Improper debugging of servo controller	根据说明书重新调试 Re-debugging according to the instructions