

阀门电动装置使用说明书
The use specification of valve electric appliance
(CWX-15系列 CWX-20系列)
(CWX-25S系列 CWX-60P系列)

MANUAL

使用前请严格按照对应控制方式使用
Note: pls auording the diagram wines to operate carefully

欢迎您了解微型阀门电动装置，感谢阁下选用我
公司生产的各个系列的微型阀门电动装置。
Welcom to our miniature motorised actuators, and thank
you for your attention to our products.

一、概要 (Summary)

CWX系列微型电动球阀执行器外壳采用合金材料，
外观小巧精致、美观耐用；传动机构采用全金属齿
轮，精度高，力矩大。多种控制方式，既可以接受
远程阀门控制信号，又可以反馈到位信号给智能检测
单元。

CWX miniature actuators are using alloy metal, smart
shape, the transmission system adopt new technology and
made of metal gears with high torque. A variety of control,
both recognize the remote signal and can feedback signal to
the intelligent unit.

二、适用范围 (Suitable for)

- 1.IC卡智能水表、热计量表，暖通阀。
IC card meters, heat energy meters, air-warm valve.
- 2.中央空调风机盘管、消防喷淋。
HAV and fire works.
- 3.高校节水,自动控制系统,工业自控等小型设备。
Water equipments, auto-control watersystem,
Industrial mini auto equipment.
- 4.环保、给排水、水处理工程。
Irrigation equipment

5. 节水器具、饮用水设备等。

Drink water equipment.

三、产品特点

1. 外形美观，体积小巧，执行器性能可靠，输出扭矩大，使用寿命长(5~10万次)
2. 执行器和阀门可以多角度装配，方便于阁下对于空间分配需求。
3. 球阀采用浮动密封结构，无滴漏，适用于重污垢长无动作的工作。
4. 替换电磁阀不能正常工作的环境。
5. 在0-1.0MPa水压下，工作电流仅为45~100mA(不同型号之有差异)。
6. 防护等级高，可在相对潮湿的环境中使用。

III: products Characteristic:

1. Smart shape, Perform reliably, large output torque, as long as 50000-100000 times.
2. Muti angel assembling, convenience for all kinds of requirements.
3. Float ball design, no leak, most suitable for heavy dirt and long time no action.
4. The conditions that solenoid valve can not be worked.
5. Under the pressure between 0Mpa and 1.0Mpa, the working current is only 45mA to 100mA (it depend on the different type)
6. High protection class, can be worked in moist Conditions.

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四、特性参数 (parameters)

型号 Model	口径 Diameter	控制方式 Control ways	开关时间 Open/close time	额定电压 Rated voltage	工作电流 Working current	标称扭矩 Nominal torque
CWX-20P	DN8-32	CR01 CR02 CR03 CR04 CR05 CR06	5S	DC3-6V AC/DC9-24V AC220V AC85-265V	<65mA	2NM
CWX-15Q/N	DN8-32	CR01 CR02 CR03 CR04 CR05 CR06	3S/5S	DC3-6V AC/DC9-24V AC220V AC85-265V	<80mA	Q≤1.5NM N≤2.0NM
CWX-25S	DN8-32	CR01 CR02 CR03 CR04 Cr05	7-10S	DC3-6V AC/DC9-24V AC220V	<100mA	2.5NM
CWX-60P/S	DN8-32	CR01 CR05 CR06	15S/20S	DC5/12/24V AC220V AC85-265V	<100mA	6NM

*注：

1. CWX-15N为普通型号，CWX-15Q为快开型号
2. 各控制模式与额定电压对应的静态电流见控制模式图。
3. CR04控制方式时，第一次使用或长时间不用时的瞬间电流<0.5A。

1,CWX-15N "N" means "normal" open and close type, CWX-15Q,"Q" means "quick" open and close type.

2,Static current for rated volt and all kinds of control mode as drawing.

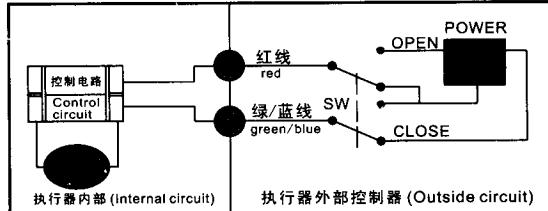
3,Instantaneous current less 0.5 A for the first time or not using when the drawing is CR04 wires.

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CWX系列接线说明 CWX-Series Wiring Diagram

CR01(两线控制方式)

CR01 wiring Diagram (Two wires)



1. SW与OPEN相连, 阀开, 到位后内部自动断电, 保持在全开(直通)状态。
2. SW与CLOSE相连, 阀关, 到位后内部自动断电, 保持在全关(侧通)状态。
3. 阀下所选POWER为: DC3-6V DC12V DC24V

执行器型号为: CWX-20B/D CWX-15Q/N

CWX-60P CWX-25S

1. Connecting SW and OPEN, the valve opens, getting the position, automatically power off, the valve remain fully open position.

2. Connecting SW and CLOSE, the valve close, getting the position, automatically power off, the valve remains side passes position (fully closed)

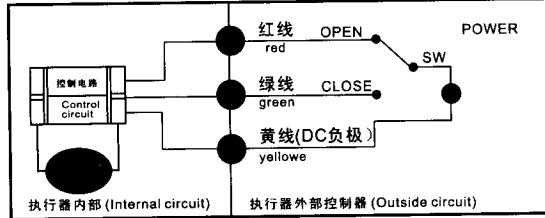
3. Power choose: DC3-6V DC12V DC24V

Model: CWX-20B/D CWX-15Q/N CWX-60P
 CWX-25S

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CR02 (三线控制方式)

CR02 Wiring diagram(three wires)



1. SW与OPEN相连, 阀开, 到位后内部自动断电, 保持在全开(直通)状态。

2. SW与CLOSE相连, 阀关, 到位后内部自动断电, 保持在全关(侧通)状态。

3. 阀下所选POWER为: DC3-6V AC/DC9-24V
 DC12V DC24V AC220V

执行器型号为: CWX-20B/D CWX-15Q/N A4
 CWX-60P CWX-25S

1. Connecting SW and OPEN, the valve opens, getting the position, automatically power off, the valve remain fully open position.

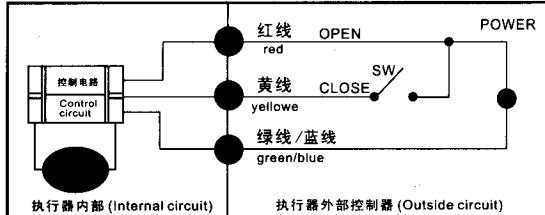
2. Connecting SW and CLOSE, the valve close, getting the position, automatically power off, the valve remains side passes position (fully closed)

3. Power choose: DC3-6V AC/DC9-24V DC12V
 DC24V AC220V

Model: CWX-20B/D CWX-15Q/N A4 CWX-60P
 CWX-25S

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CR03 (三线控制方式)
CR03 Wiring diagram(three wires)



1. SW闭合, 阀开, 到位后内部自动断电, 保持在全开(直通)状态。
2. SW断开, 阀关, 到位后内部自动断电, 保持在全关(侧通)状态。
3. 阀下所选POWER为: DC5-12V DC3-6V DC12V
 DC24V AC/DC9-24V AC85-265V

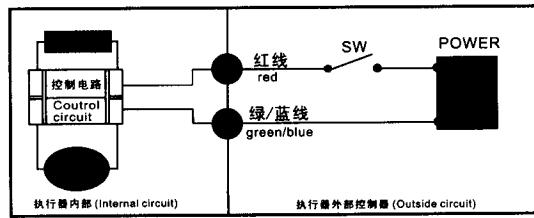
执行器型号为: CWX-20B/D CWX-15Q/N
 CWX-60P CWX-25S

1. Connecting SW and OPEN, the valve opens, getting the position, automatically power off, the valve remain fully open position.
2. Connecting SW and CLOSE, the valve close, getting the position, automatically power off, the valve remains side passes position (fully closed)
3. Power choose: DC5-12V DC3-6V DC12V
 DC24V AC/DC9-24V AC85-265V

Model: CWX-20B/D CWX-15Q/N CWX-60P
 CWX-25S

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CR04 (断电复位控制方式)
CR04 Wiring diagram (power off return)



1. SW闭合, 阀开/关, 到位后内部自动断电, 保持在全开/关状态。
 2. SW断开, 阀关/开, 到位后内部自动断电, 保持在全关/开状态。
 3. 阀下所选POWER为: AC85-265V DC5-12V
 AC220V AC/DC9-24V
- 执行器型号为: CWX-20B/D CWX-15Q/N
 CWX-60P CWX-25S

4. CR04控制方式采用高速RF320电机, 可以实现快开(配合CWX-15Q型号执行器, 开关时间<3S), 在第一次开阀或长时间处于关阀状态, 必须保证有至少1分钟的通电时间才能实现断电后可靠复位(复位时间<5S)。

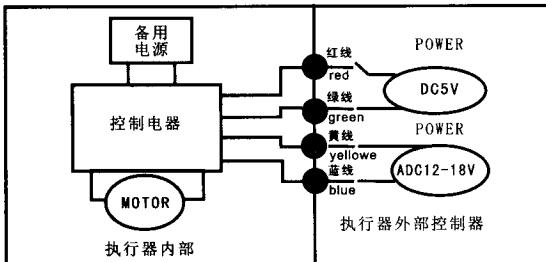
1. SW closed, the valve open/close, getting the position, power off automatically, the valve remains fully open/close position.
2. SW opened, the valve close/open, getting the position, power off automatically, the valve remains fully close/open position.
3. Power choose: AC85-265V DC5-12V AC220V
 AC/DC9-24V

Model: CWX-20B/D CWX-15Q/N CWX-60P CWX-25S

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4. CR04 adopt high-speed RF320 motor, can be quick open (with actuator CWX-15Q, open time within 3 seconds), when first open or under a long time for Close position, be guarantee more than 1 minute to assure reliable return after power off. (return time within 5 seconds).

CR04A (四线断电复位控制方式)
CR04 Wiring diagram (four wires)



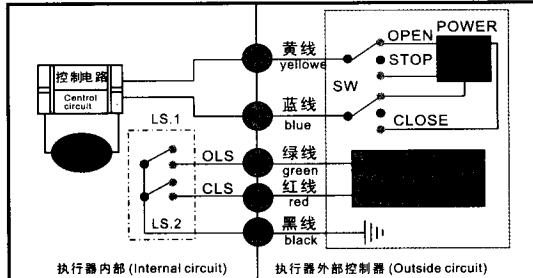
1. 当SW闭合，阀开/关，到位后内部自动断电，保持在全开状态；
2. 当SW断开，阀开/关，到位后内部自动断电，保持在全关状态；
3. 使用时黄、蓝线接长接供电电源AC/DC12-18V，红、绿线接DC5V，为控制线，同时四线任意断开一根线，阀门就会自动复位。
4. POWER为：□DC5V与AC/DC12-18V
执行器型号为：□CWX-15Q/N □CWX-25S □CWX-60P

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1. "SW" is closed, the valve open / closed, actuator power-off automatically, the valve open fully
2. "SW" is open, the valve open / closed, actuator power-off automatically, the valve open fully
3. Yellow, blue wires connect the long wire for powered "AC/DC12-18V", red, green for "DC5V" wires to control, while the four-wire, any one disconnect, the valve will automatically return.

4. POWER: □DC5V&AC/DC12-18V
Actuator Model: □CWX-15Q/N □CWX-25S □CWX-60P

CR04B (带信号反馈断电复位控制方式)



1. SW闭合时，阀开，到位后绿线给出开到位信号OLS控制，控制器检测到OLS，将SW连向STOP，阀门停止动作，保持在开到位状态；
2. SW断开时，阀关，到位后红线给出关到位信号CLS控制，控制器检测到CLS，将SW连向STOP，阀门停止动作，保持在关到位状态。执行器动作为回转型（正反转）
3. POWER为：□DC9~24V
4. 执行器型号为：□CWX-15Q/N □CWX-25S □CWX-60P

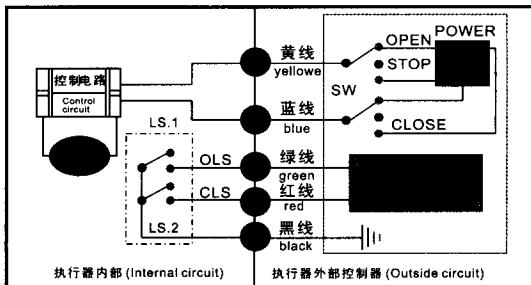
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1 “SW” is closed, the valve open, the green wire shows the open signal “OLS” control, the controller detects the “OLS”, the “SW” is connected to the STOP, the valve stops and keep the state in the open place;

2. “SW” disconnected, the valve off, the red wire shows the closed signal “OLS” control, the controller detects the “OLS”, “SW” connected to the STOP, the valve stops and keep the state in the closed place. Actuator is Rotary type (reverse)

3. POWER : DC9-24V
4. Actuator model: CWX-15Q/N CWX-25S
 CWX-60P

CR05 (五线微控制器控制方式)
CR05 Wiring diagram (five wires micro controller)



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1.SW与POWER相连, 阀开, 到位后LS.1导通, 控制器在检测到AOLS后断电, 阀门保持在全开(直通)状态。

2. SW与CLOSE相连, 阀关, 到位后LS.2导通, 控制器ACLS后断电, 阀门保持在全关(侧通)状态。

3. 阀下所选POWER为: DC3-6V DC12V DC24V
执行器型号为: CWX-20B/D CWX-15Q/N
 CWX-60P CWX-25S

4. ▲ 请先确认信号线“红、黑、绿”
三根线接好后再接电源线“黄、蓝”

1.Connecting SW and OPEN, the valve open, getting the position, LS.1 connection, the controller tested and find the signal of AOLS, the valve remains fully open position, meanwhile power off automatically.

2.Connecting SW and CLOSE, the valve close, getting the position, LS.2 connection, the controller tested and find the signal of ACLS, the valve remains fully close position, meanwhile power off automatically.

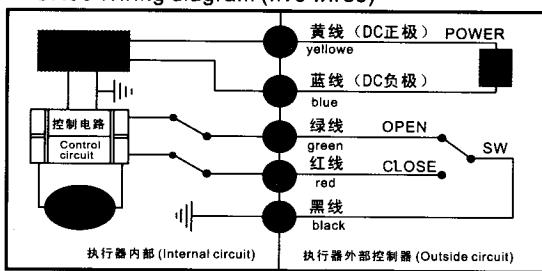
3. Power choose: DC3-6V DC12V DC24V
Model: CWX-20B/D CWX-15Q/N CWX-60P
 CWX-25S

▲ 4.NOTE:Pls confirm the signal wires at first(Red, Black, Green is signal wires) turnon the power wires (Yellow, Blue wires) after confirm the three wires

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□ CR06 (五线控制方式)

CR06 Wiring diagram (five wires)



1. SW与OPEN相连, 阀开, 到位后内部自动断电, 保持在全开(直通)状态。
2. SW与CLOSE相连, 阀关, 到位后内部自动断电, 保持在全关(侧通)状态。
3. 阀下所选POWER为: DC3-6V DC12V DC24V
 AC/DC9-24V DC85-265V

执行器型号为: CWX-20B/D CWX-15Q/N
 CWX-60P CWX-25S

1. Connecting SW and OPEN, the valve opens, getting the position, automatically power off, the valve remain fully open position.
2. Connecting SW and CLOSE, the valve close, getting the position, automatically power off, the valve remains side passes position (fully closed)
3. Power choose: DC3-6V DC12V DC24V

Model: CWX-20B/D CWX-15Q/N CWX-60P
 CWX-25S

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六、使用说明及相关注意事项

- ◆对于执行器的额定工作电压选用AC/DC9-24V (CR06控制方式) 的电动阀门执行器, 可以使用AC9-24V或DC9-24V的电源 (使用AC/DC9-24V电源时, 即配线图上POWER为IS, 不分电源正负极)。交流电压上限不能高于24V, 直流电压的上限不能高于30V, 以免烧坏内部电路板。
- ◆以上所有配线方式均可以为回转型, CR02和CR06还可以为单向型。

- ◆For the actuators rated voltage is AC/DC9V-24V, can be applied for AC9V-24V or DC9V-24V,(When apply AC/DC9-24V, POWER in the wiring diagram is IS, and no Cathode and positive). AC24 and DC30V is the maximum voltage, otherwise may damage the internal circuit board.
- ◆The above wiring can be multi-turn type, and CR02 and CR06 can be single-turn type.

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- ◆对于CR06控制方式中，绿线和黑线或红线和黑线之间绝对禁止外接任何电源。选用CWX-60P/S执行器，当电源电压为DC12V/24V时黄线接正极蓝线接负极(内有DC-DC模块，已加装保护二极管，接反不动作)当电源电压为AC/DC9-24V时，电源不分正负极。
- ◆对于两通球阀，执行器可以控制其实现全开/全关两种状态。当使用三通时（卧式和立式），对应的状态为直通和侧通。
- ◆当供电电源电压为DC5V时输出电流能力应不大于500mA。
- ◆当水质易结垢的场合下，其主管道应加装电子除垢设备。
- ◆当介质含污、含沙较多的情况下建议加装过滤器。
- ◆For the control of Cr06, prohibit outside power between green wire and black wire or red wire and black wire.
- ◆For the 2-way ball valve, the actuator may control the valve for full open and full close. For 3-way ball valve (Horizontal type and Vertical type), the actuator may control the valve for direct passes and side passes.
- ◆When the voltage is DC5V, output current should be less than 500mA.
- ◆When under water quality easy scaling situation, The main pipe line should install the electronic removing dirty stuff equipment.
- ◆When medium are dirty or sandy, suggest add a filter.
- ◆Green light---full open wholly, Red light----full closed wholly.

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▲ “警告”

- ◆此系列产品不是防爆型，不能使用在有爆炸性气体和腐蚀性气体的室内。
- ◆在通电时，不能拆开执行器和阀门，不能做配线工程。
- ◆对于因本产品故障会对阁下造成重大人员伤亡或财产损失的地方，请谨慎使用。

▲ Warning

- ◆The series is not Explosion-proof type, they can not be used in the room with Caustic gas and explosion gas.
- ◆When power on, can not disassemble the actuator and the valve, cannot make the wiring project.
- ◆Will cause the significant personnel casualty or the property damage place because regarding this product breakdown to your

▲ “注意”

- ◆严禁落下产品而给产品冲击，这引起动作不良
- ◆严禁踏上产品，这引起执行器故障或人的掉下事故
- ◆雨天或有水花状态，禁止做配线工程

Notice:

- ◆Prohibit strictly drops the product, but to the product impact, this causes the movement bad.
- ◆Prohibit strictly steps the product, this causes the actuator breakdown or the human falls down the accident.
- ◆The rainy day or has the water splash condition, forbids to make the wiring project.

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七、质量保证:

本公司郑重承诺:产品售出一年内,在符合正常使用条件下,出现质量问题将免费更换到阁下手中。

以下情况不属于上述范围:

- ◆非正常使用
- ◆条形防伪标志撕毁
- ◆外形破损
- ◆阀球严重磨损

VII:This company pledged seriously:

The product sells in one year, in meets under. the regular service condition, will have the quality problem free to replace the products.

The following situation does not belong to the above scope:

- ◆Unusual use.
- ◆The valve ball wears seriously.
- ◆Talk-show campaign is broken.
- ◆Outside breakage.

八、敬告阁下:

公司电动阀门产品种类繁多且不断改进产品功能,推出新品,本公司保留对说明书更改的权利。如有更改,恕不另行通知!

VIII:informs you excellency:

The company electric operated valve product type is many, and improvement for the product function unceasingly, promotes the new product, this company retains to the instruction booklet change right. If has the change, No further notice.

相关技术问题或有特殊要求,请与我公司联系!

The correlation technique question or has the special request, please relate with Our company!

附:关于CWX-25S手动使用: (见下图)

- ◆手动功能只能在断电的情况下使用
- ◆提起手轮,左右旋转直到阀到位
- ◆手动后必须按下手轮,以便电动正常使用

