

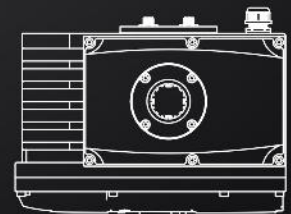


# ODL

## ***ELECTRIC ACTUATOR***

*Intelligent Process Control*

*Build A Quality*





## 概述 Summary

“ODL”系列电动执行器用于控制0°-270°旋转的阀门及其他同类产品，如蝶阀，球阀，阻尼器，挡板阀，旋塞阀，百叶阀等。广泛应用于石油，化工，水处理，船舶，造纸，电厂，供暖，轻工等行业。可由380V / 220V / 110V交流电源或24V / 110V直流电源驱动，输入4-20mA电流信号或0-10V直流电压信号作为控制信号。将阀门移动到正确的位置，实现自动控制，其最大输出扭矩为2000N·M。（CE认证）。

ODL series electric actuator is used for controlling 0°-270° rotation of the valves and other similar products, such as butterfly valve, ball valve, damper, flapper valve, plug valve, louver valve and so on. It widely applies to petroleum, chemical, water treatment, shipping, paper making, power plant, heating, light industry and other industries. It can be driven by 380V/220V/110V AC power or 24V/110V DC power, inputs 4-20mA current signal or 0-10V DC voltage signal as control signal. It moves the valve to the right position, and achieves automatic control, its maximum output torque is 2000N·M. (CE certificate approved).

## 性能特点 Performance Feature

**1. 壳体** — 壳体由硬质铝合金制成，具有阳极氧化处理和聚酯粉末涂层。高耐腐蚀，防水等级为IP67。IP68是可选的。

Actuator body — The body is made of hard aluminum alloy with anodize treatment and polyester powder coating. It is highly corrosion-resistant and waterproof level is IP67. IP68 is optional.

**2. 电机** — 全封闭式鼠笼式电机，体积小，扭矩大，惯性力小，F级绝缘等级。内部热保护开关避免损坏电机。

Motor — Fully enclosed squirrel-cage motor with small size, large torque, small inertia force and F class insulation rating. Internal hot protection switch avoids damaging of the motor.

**3. 手动结构** — 手柄设计保证安全可靠、省力、体积小。当执行器未通电时，可通过手柄操作。当您不需要手动操作时，将扳手放在执行机构背面的插槽中。

Manual Structure — The design of spanner is safe, reliable, labor-saving and small. When the actuator is not energized, it can be operated by handle. When you don't need manual operation, put the spanner in the slot on back side of the actuator.

**4. 位置指示器** — 安装在中心轴上，用于观察阀门的位置。为了避免沉积和观察方便，它是由凸透镜设计的。

Position Indicator — Installed in the center axis for observing position of valve. To avoid ponding and observe conveniently, it is designed by convex lens.

**5. 密封** — 密封性能好。其防护等级为IP67，IP68也是可选的。

Seal — It has good seal performance. And its protection class is IP67, also IP68 is optional.

**6. 限位开关** — 机械和电子双限位。机械限位螺丝可调，安全可靠。电子限位开关由凸轮机构来控制，简单的调整机构能精确方便的设定位置，且不受手轮过量的影响。

Limit Switch — Mechanical and electronic double limit. Mechanical limit screw is adjustable, safe and reliable.

Electronic limit switch is controlled by the cam. Position of limit switch can be set accurately and conveniently by simple adjustment.

**7. 自锁** — 精密蜗轮蜗杆传动大扭矩，噪音低（最高50dB），使用寿命长。自锁功能可防止反转，确保稳定性和可靠性。高效润滑油在出厂前已经添加，不再需要添加。

Self-lock — Precise worm and worm gear transfer large torque efficiently with low noise(max. 50 dB) and long life. The self-lock function prevents inversion and insure stability and reliability. High-effective lubricant oil has been added ex-factory, it doesn't need to add any more.

**8.防脱螺栓** - 拆下盖子时，螺栓将附着在盖板上。所有外部螺栓均采用不锈钢制成。

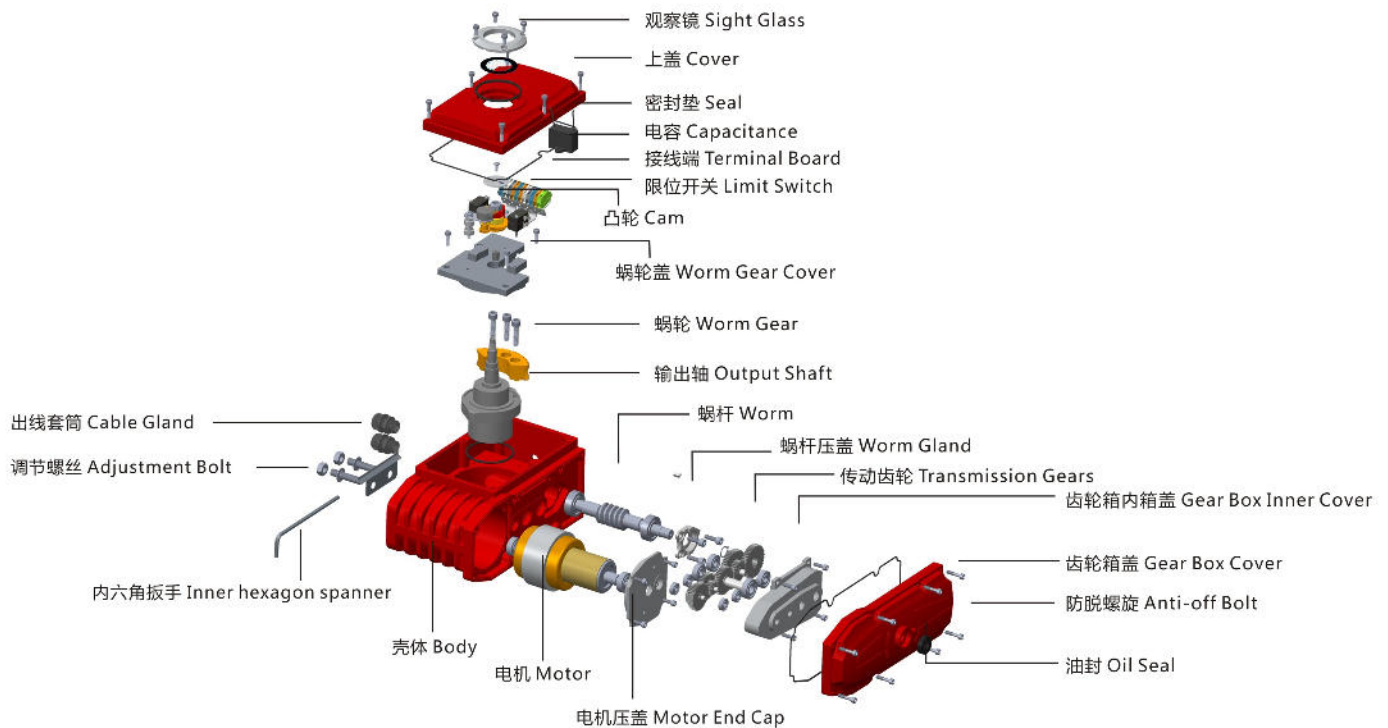
Anti-off bolt — The bolt will attach to the cover when removing the cover. All external bolts are made of stainless steel.

**9.安装** - 电动执行器底部的安装尺寸符合国际标准ISO5211和DIN3337。孔成四方形，易于通过线性或45°安装。执行器可以垂直或水平安装。

Installation — Installation size at the bottom of Electric Actuator meets international standard ISO5211 and DIN3337. The output hole is ditetragon that it is easy to install by linear or 45°. The actuator can be installed vertically or horizontally.

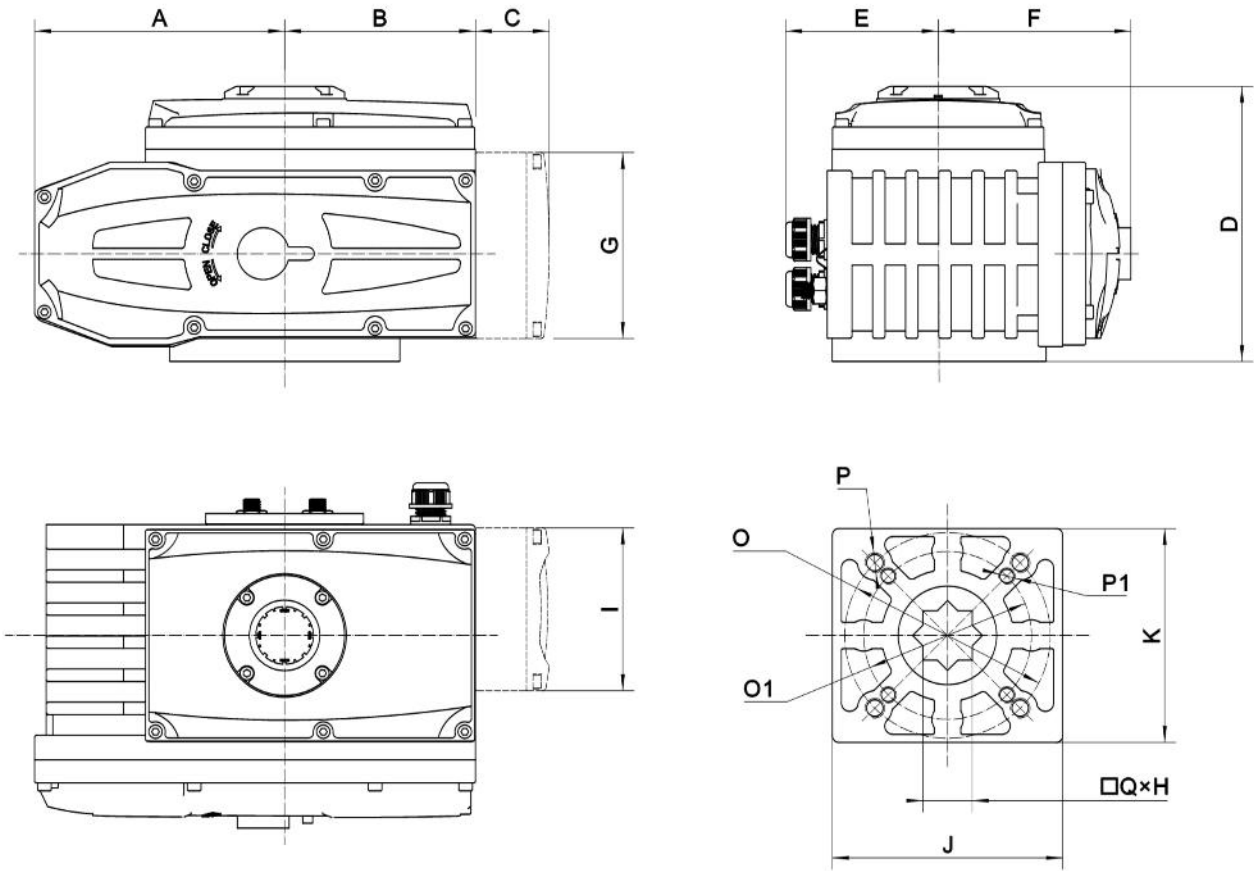
**10.线路** - 控制线路符合单相或三相电源标准，布局合理紧凑。端子有效满足各种附加功能要求。

Circuit — Controlling circuit meets single-phase or three-phase power supply standard with reasonable and compact layout. Terminals meet various of additional functional requirements effectively.



## 性能参数 Performance Parameter

型号 Model	最大输出扭矩 Max output torque	动作时间 Operating time to 90° (S)		电机 Motor (W)		额定电流 Single-phase rated current (A)						重量 Weight
		N · M	AC	DC	AC	DC	AC24V	AC110V	AC220V	AC380V	DC24V	
ODL-003	30	30	/	8	/	/	/	0.2	/	/	/	2.1
ODL-005	50	30	10	10	15	2.2	0.48	0.24	0.15	1.2	0.15	3.4
ODL-008	80	30	10	12	15	2.2	0.48	0.27	0.16	1.2	0.15	3.4
ODL-010	100	30	10	16	25	3	0.64	0.32	0.25	1.6	0.2	4.6
ODL-015	150	30	10	23	25	3.8	0.68	0.35	0.25	1.6	0.2	4.6
ODL-020	200	30	15	40	40	5	0.9	0.48	0.25	2.6	0.3	11
ODL-040	400	30	15	60	60	5	0.9	0.48	0.25	2.6	0.3	11.8
ODL-060	600	30	15	90	70	8.5	2	0.92	0.45	4.5	0.5	12
ODL-100	1000	40	25	130	100	9	2.2	1	0.48	5.0	0.6	12.5
ODL-200	2000	40	25	160	100	9.8	2.6	1.1	0.51	5.0	0.6	12.5



外形及连接尺寸 Dimensions and Connection(mm)

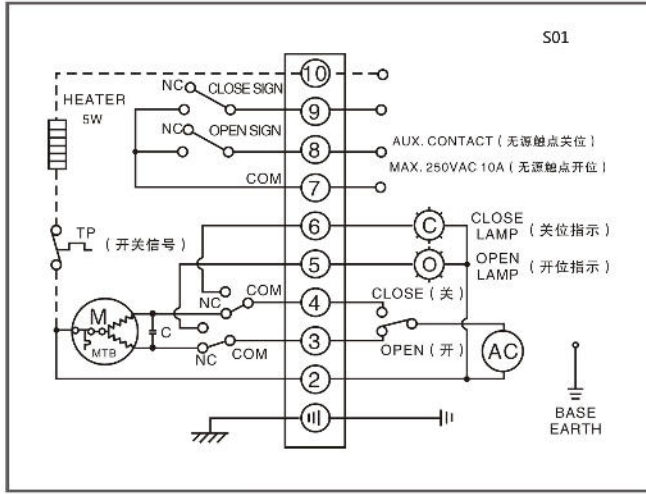
型号 Model	A	B	C	D	E	F	G	I	J	K	O	P	O1	P1	Q×H深
ODL-003	74	49	45	114	53	65	114	100	50	50	50	4-M6	36	4-M5	11×18
ODL-005	89	72	45	125	57	82	114	100	66	66	70	4-M8	50	4-M6	14×20
ODL-008	89	72	45	125	57	82	114	100	66	66	70	4-M8	50	4-M6	14×20
ODL-010	109	80	45	126	67	85	114	100	100	90	70	4-M8	50	4-M6	17×23
ODL-015	109	80	45	126	67	85	114	100	100	90	70	4-M8	50	4-M6	17×23
ODL-020	152	116	45	167	93	117	114	100	140	130	125	4-M12	102	4-M10	27×43
ODL-040	152	116	45	167	93	117	114	100	140	130	125	4-M12	102	4-M10	27×43
ODL-060	152	116	45	167	93	117	114	100	140	130	125	4-M12	102	4-M10	27×43
ODL-100	152	116	45	167	93	117	114	100	140	130	125	4-M12	102	4-M10	27×43
ODL-200	152	116	45	167	93	117	114	100	140	130	125	4-M12	102	4-M10	27×43

注：虚线部分为模拟量控制盒，开关型无此尺寸。

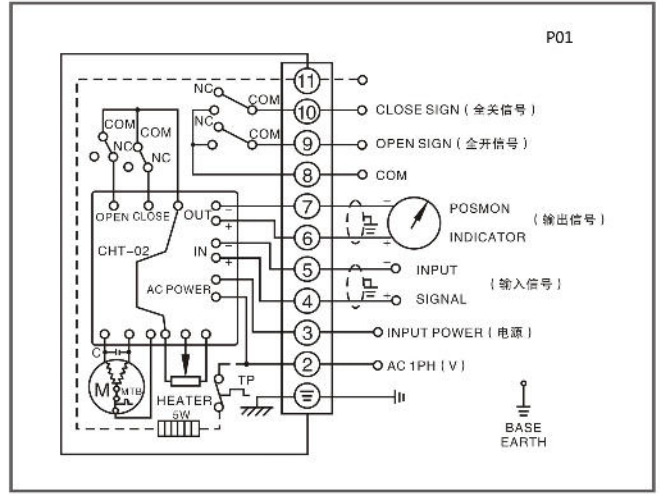
The part of broken line is used for quantity control box, On-Off model don't have this size

# 线路 Circuit Diagram

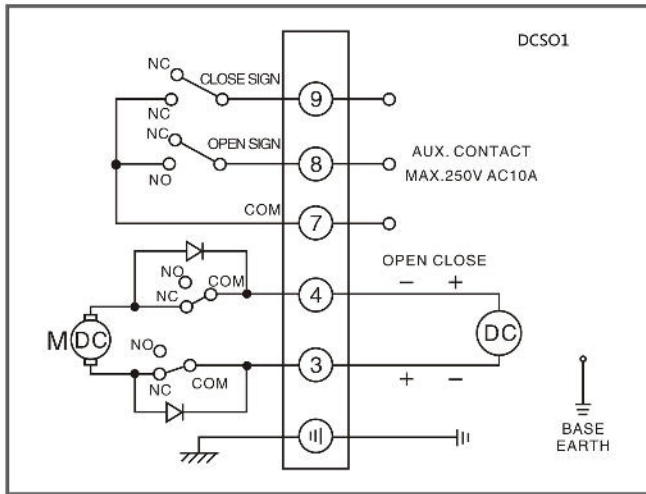
**1. 标准开关无源触点信号输出线路图 ( AC 220V/110V/24V )**  
Standard on-off passive contact signal output circuitry



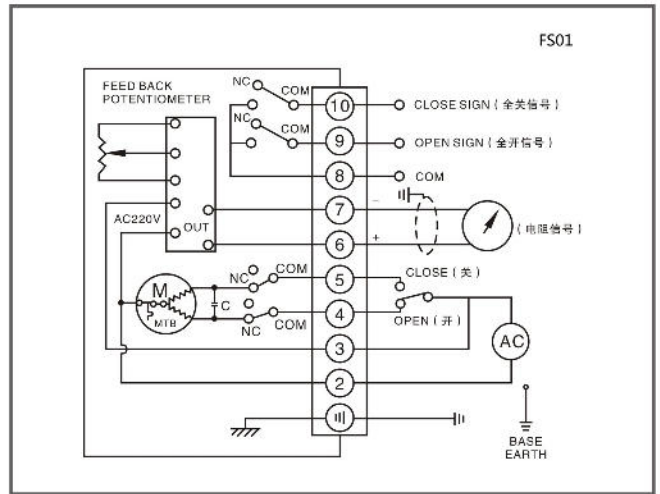
**2. 模拟量无源触点信号输出线路图 ( AC 220V/110V/24V )**  
Analog quantity passive contact signal output circuitry



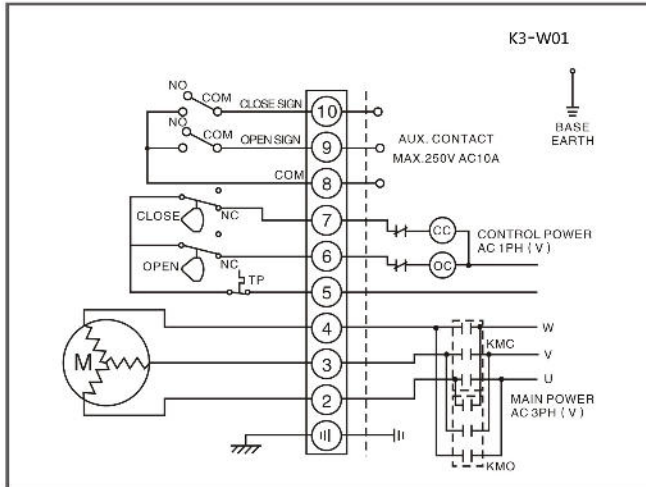
**3. 直流标准开关无源触点信号输出线路图 ( DC 24V/220V )**  
DC standard on-off passive contact signal output circuitry



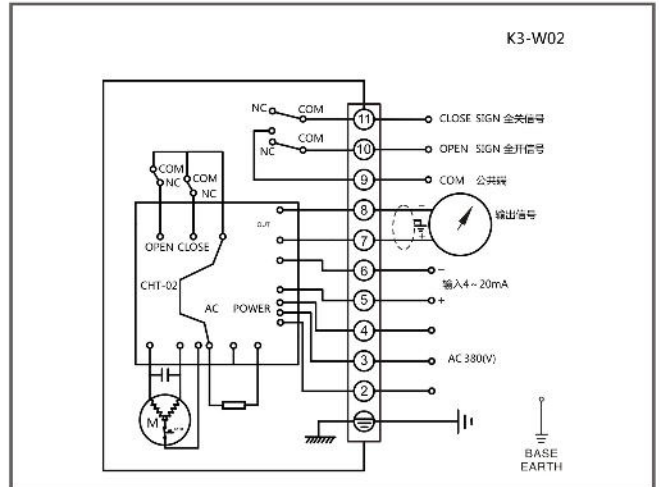
**4. 开关量输入4~20mA信号及开关信号输出线路图 ( AC 220V/110V/24V )**  
On-off input 4~20mA signal and open-closed signal output circuitry



**5. 380/440VAC/50/60Hz,3相 ( 外置控制开关型 )**  
380/440VAC/50/60Hz,3Ph( Outer control On-off type)



**6. 380/440VAC/50/60Hz,3相 ( 调节型 )**  
380/440VAC/50/60Hz,3PH ( modulating type )



# 电动执行机构 Electric actuator

## 标准技术参数 Standard Technical Parameter

外壳 Actuator body	铝合金外壳, 防水级别: IP67 NEMA4或者6 Aluminum alloy, waterproof level: IP67, NEMA4 or 6
电机电源 Power Supply	24/110/220/380V AC $\pm 10\%$ , 24/110/220VDC 50/60HZ $\pm 10\%$
电机 Motor	鼠笼式异步电动机 Squirrel-cage Asynchronous Motor
限位开关 Limit Switch	2* 开/关, SPDT, 250V AC, 10A 2* open/close, SPDT, 250V AC, 10A
辅助限位开关 Assistant Limit Switch	2* 开/关, SPDT, 250V AC, 10A 2* open/close, SPDT, 250V AC, 10A
行程 Stroke	90° - 270 $\pm 10^\circ$ (90°以上提前说明) 90° - 270 $\pm 10^\circ$ (please inform us if over 90°)
失效保护/操作温度 Failure Protection/Operating Temperature	内置热保护开: 120°C $\pm 5^\circ\text{C}$ , 关: 97°C $\pm 15^\circ\text{C}$ Internal thermal protection. Open: 120°C $\pm 5^\circ\text{C}$ , Close: 97°C $\pm 15^\circ\text{C}$
指示器 Indicator	连续的位置指示 Continuous position indicate
手动操作 Manual Operation	机械手柄 (可选装手轮) Spanner (option: handwheel)
自锁装置 Self-lock Device	蜗轮、蜗杆机构提供自锁 Self-lock by worm and worm gear
机械限位 Mechanical Limit	2个外部调整 External adjusting bolts (2 pieces)
接线孔 Connecting Hole	M18(2个) M18 (2 pieces)
环境温度 Ambient Temperature	-20°C ~ +70°C
润滑 Lubrication	铝基润滑脂 (EP型) Aluminum-base grease(EP type)
材料 Material	钢、铝合金、铝青铜、聚碳酸酯 Steel, Aluminum alloy, Aluminum bronze, Polycarbonate
环境湿度 Ambient Humidity	最大90% RH Max 90% RH
抗震性能 Anti-vibration	X Y Z 10克, 0.2~34HZ, 30分 X Y Z 10g, 0.2~34HZ, 30 minutes
外表涂层 External Coating	干粉、环氧聚酯 Dry Powder Epoxy Polyester



**Autorun**<sup>®</sup>

**浙江欧德隆自控阀门有限公司**

**ZHEJIANG ODELO AUTOMATIC CONTROL VALVE CO.,LTD.**

地址: 浙江省永嘉县瓯北镇东瓯工业五星大道 ADD: Wuxing Avenue Dongou Industrial Zone, Yongjia Zhejiang  
Tel: 86-0577-67968832 67968833 Fax: 86-0577-67968831  
http://www.zkfmw.com E-mail: richyoung@autorun.net.cn