

**精小型  
电动执行器**

Fine small  
Electric actuator



**防爆型  
电动执行器**

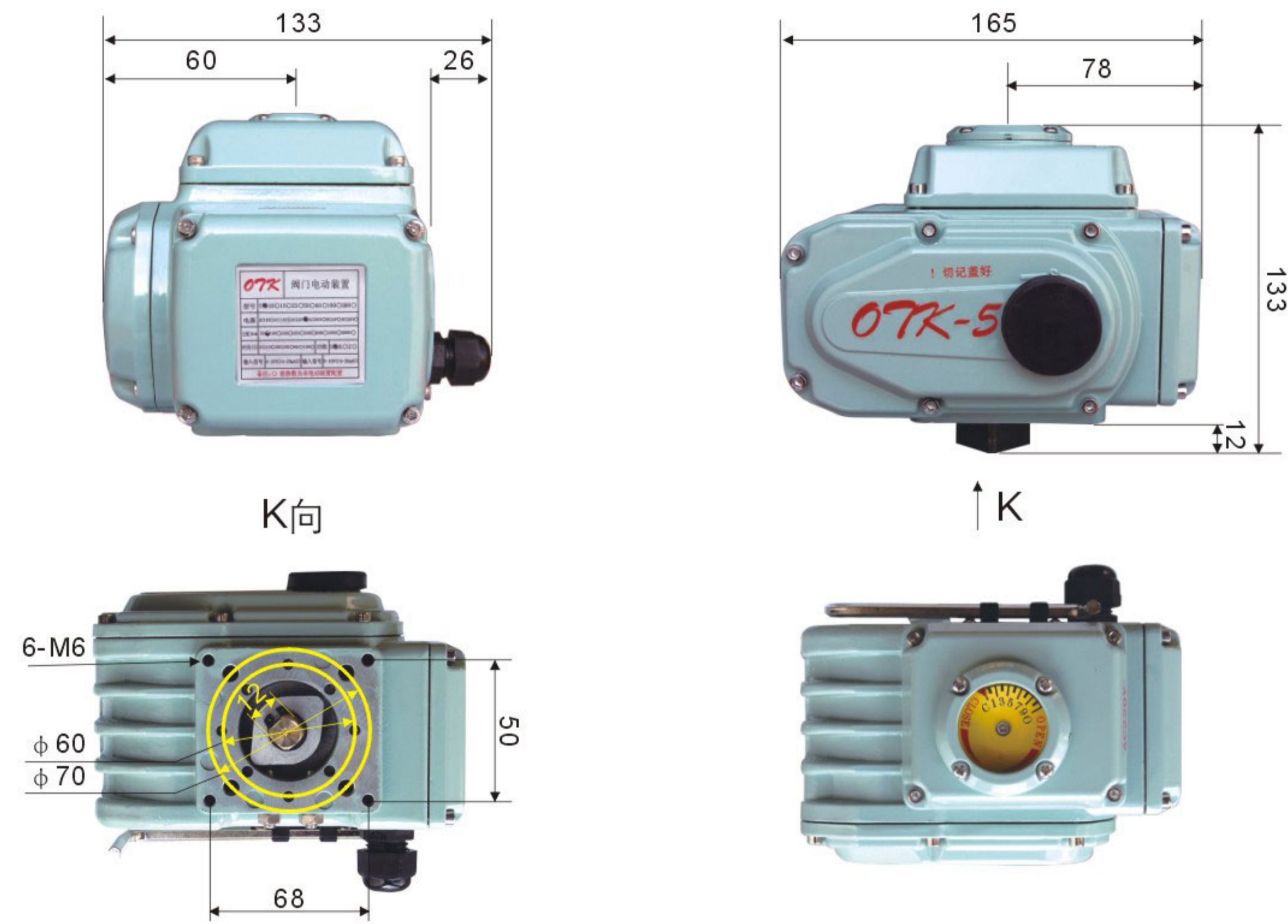
Explosion-proof type  
Electric actuator



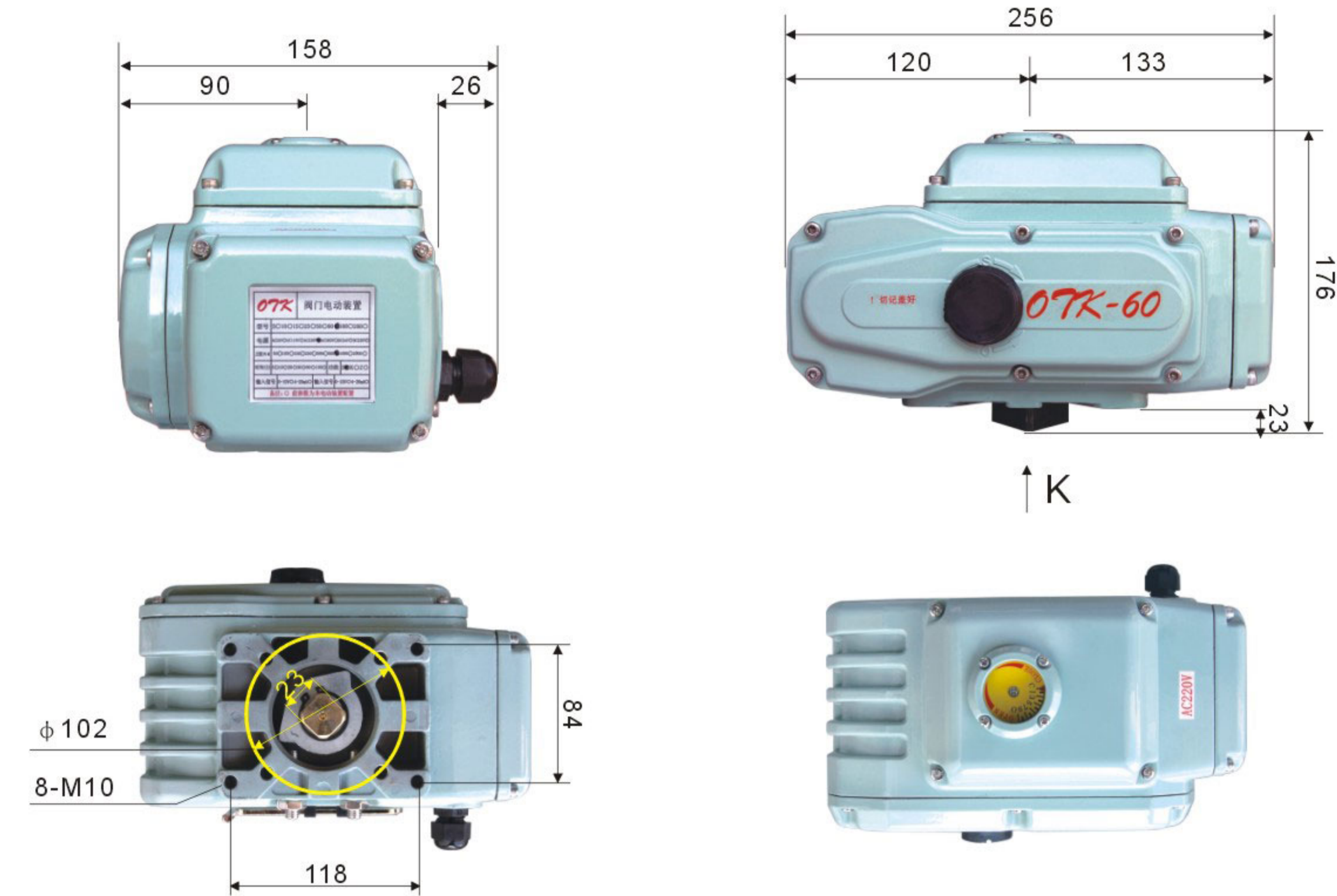
外型尺寸

Size of appearance

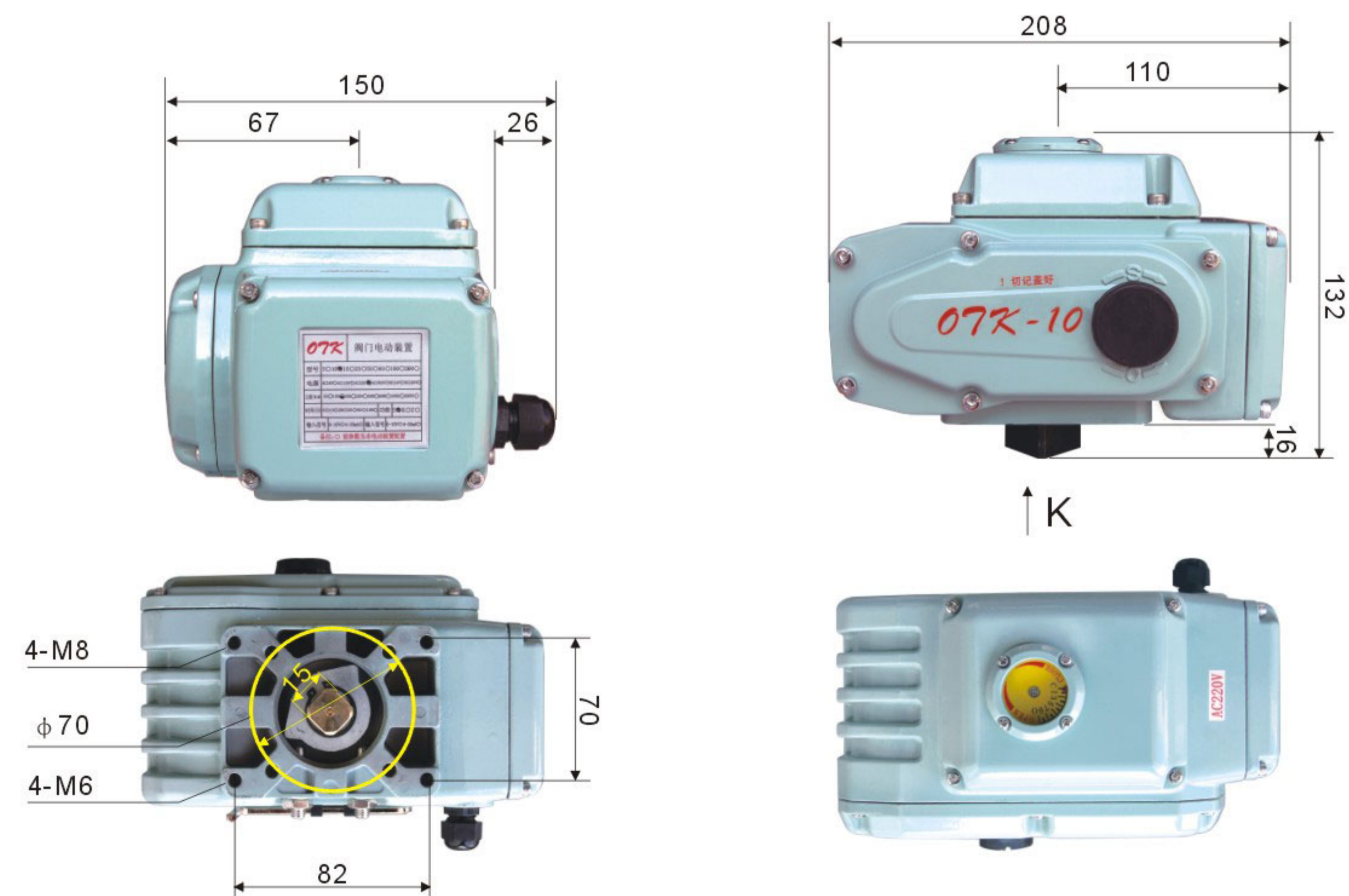
OTK-5外形图 OTK-5appearance pictures



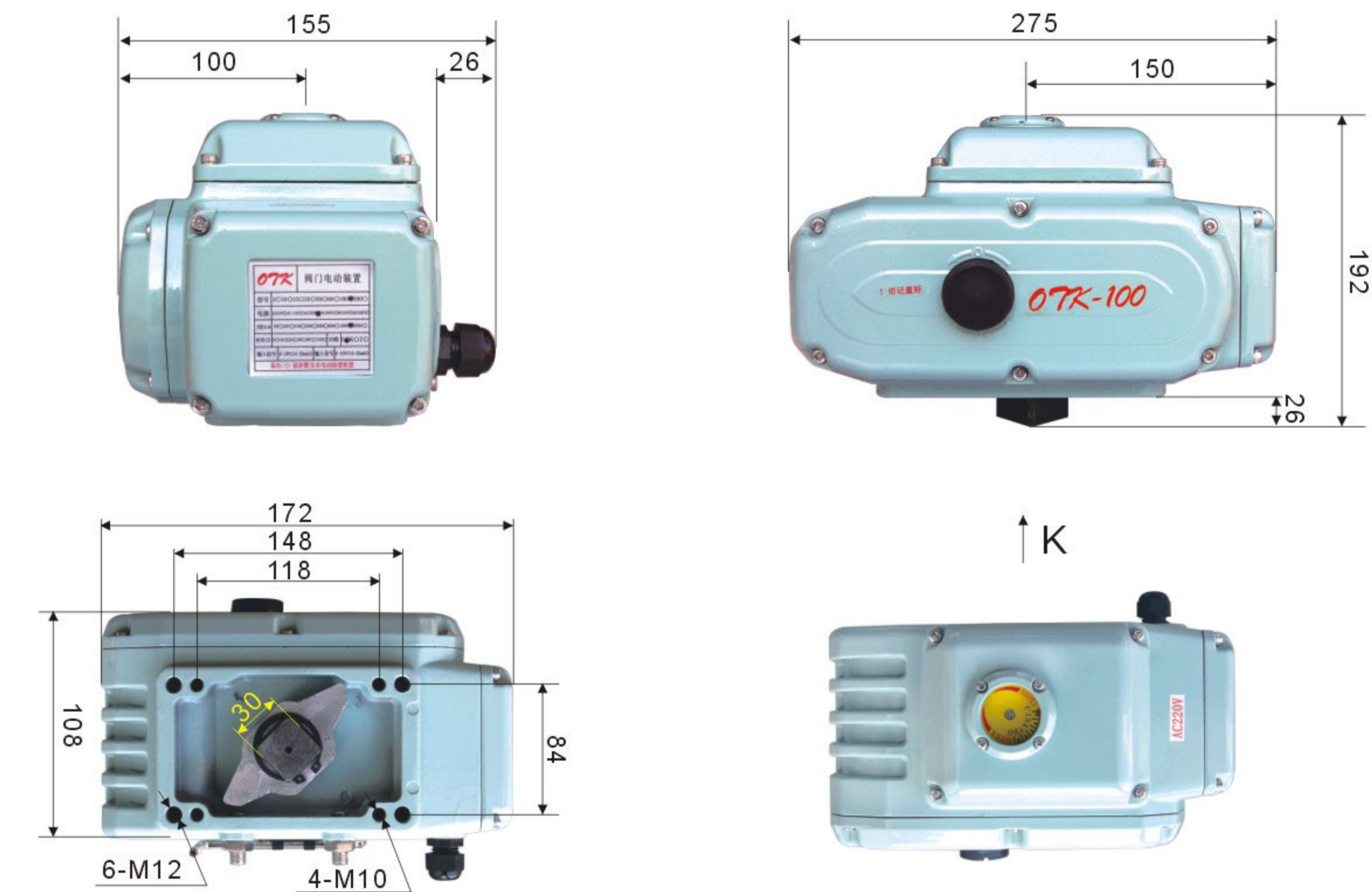
OTK-25、50、60外形图 OTK-25、50、60appearance pictures



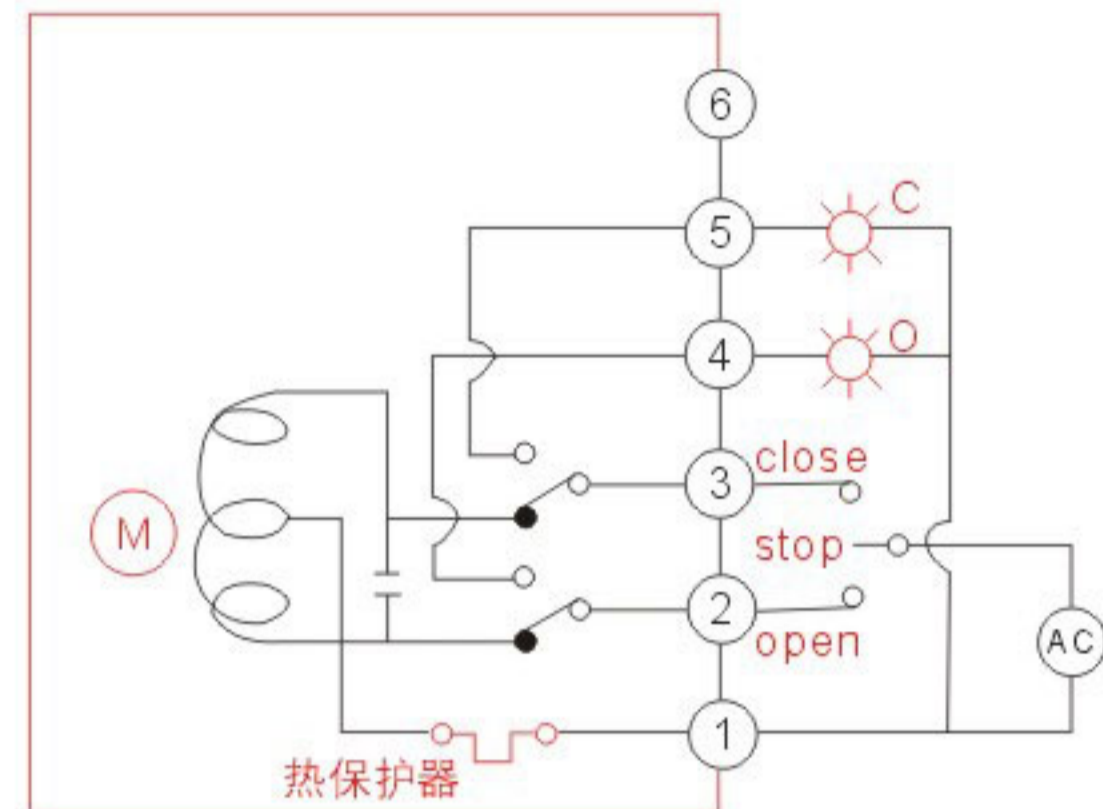
OTK-10、15外形图 OTK-10、15 appearance pictures



OTK-100、200外形图 OTK-100、200 appearance pictures



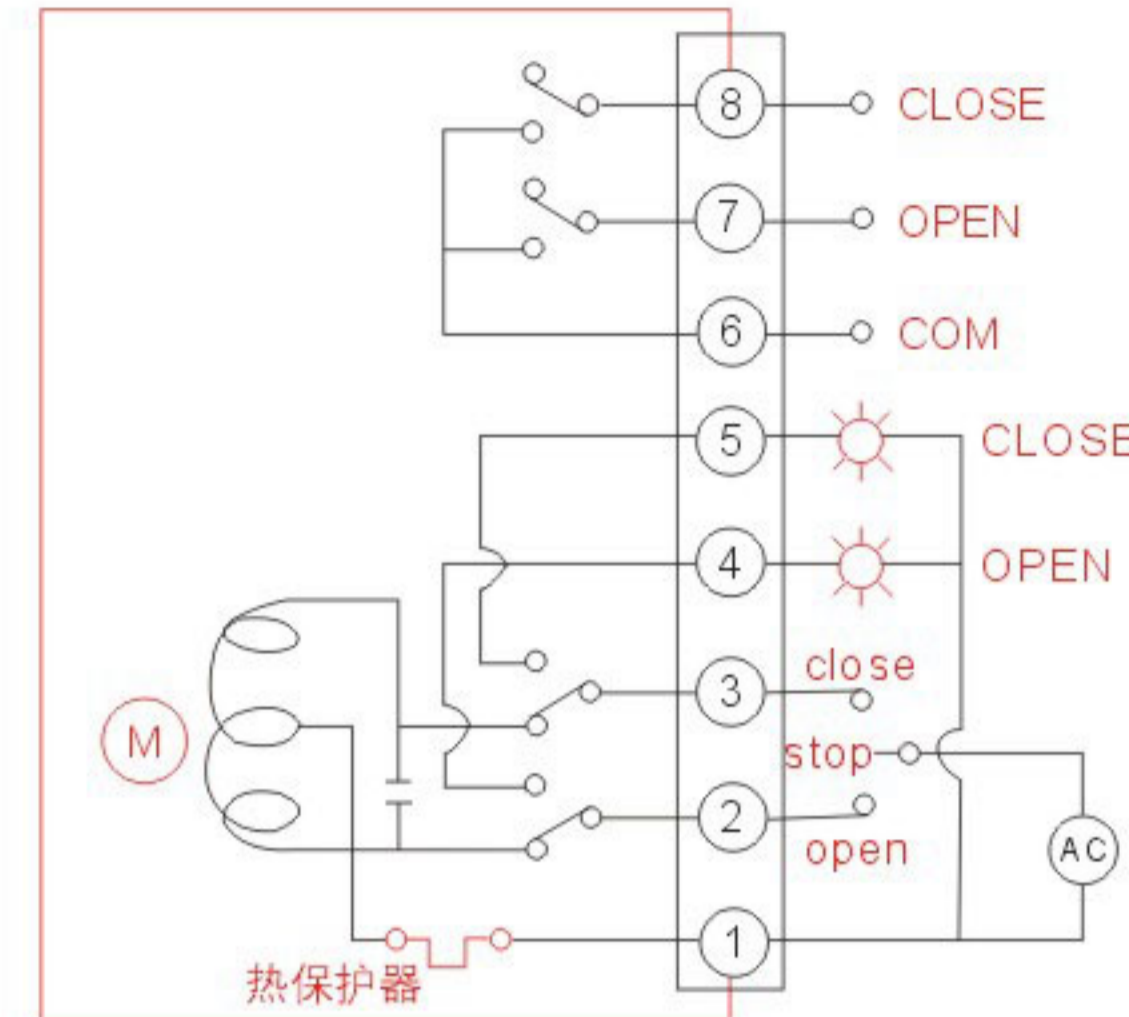
### 常用电路图 Common circuit



#### 开关型 Switch

控制系统简单，操作简便。通过输入 (AC220V, AC110V, AC24V) 电压控制信号实现开启、关闭阀门电动执行器，同时输出一组有源信号。

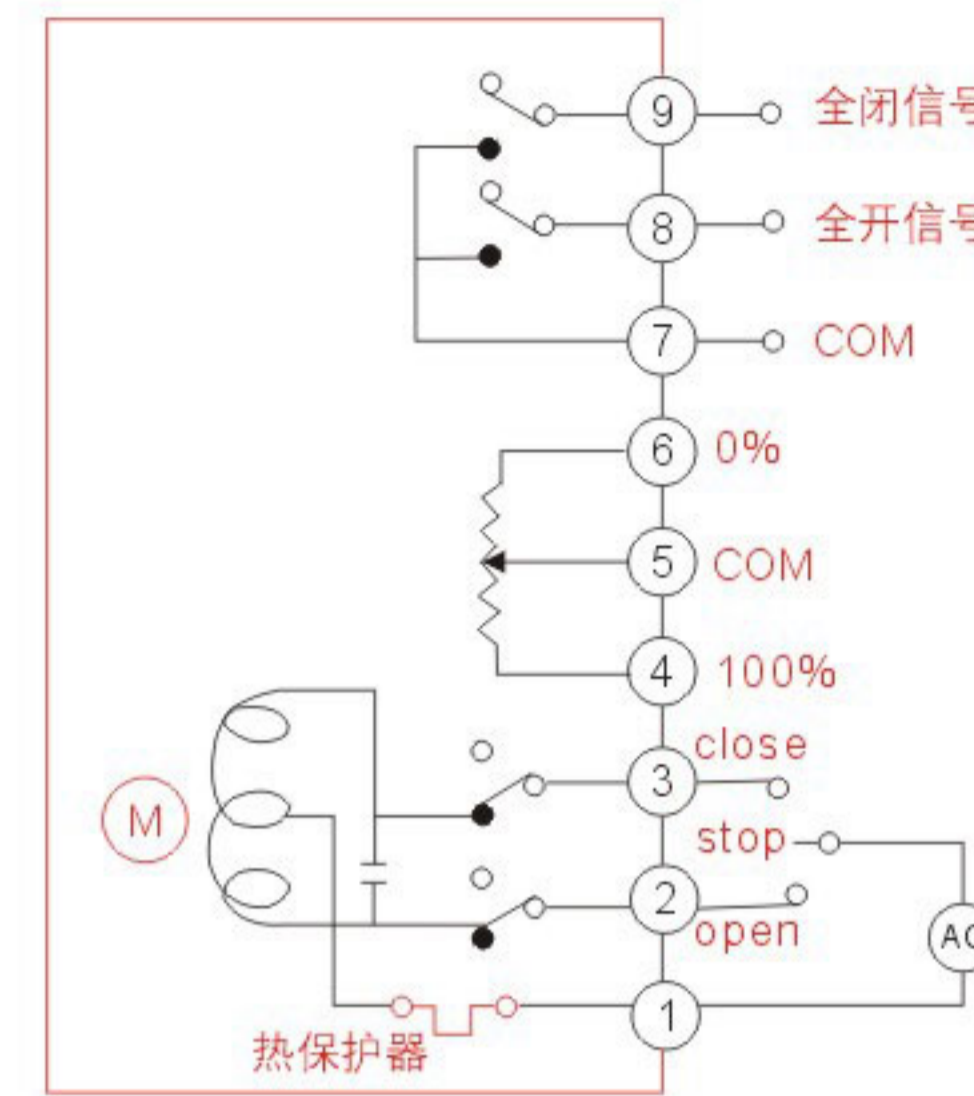
The control system is simple and easy to operate. Through the input (AC220V, AC110V, AC24V) voltage control signal to open and close the valve electric actuator, and output a group of active signals.



#### 带无源触点开关型 Passive contact switch type

输入 (AC220V, AC110V, AC24V) 电压控制信号实现开启、关闭阀门的电动执行器，并输出一组开关信号。输入信号和输出信号相对独立。

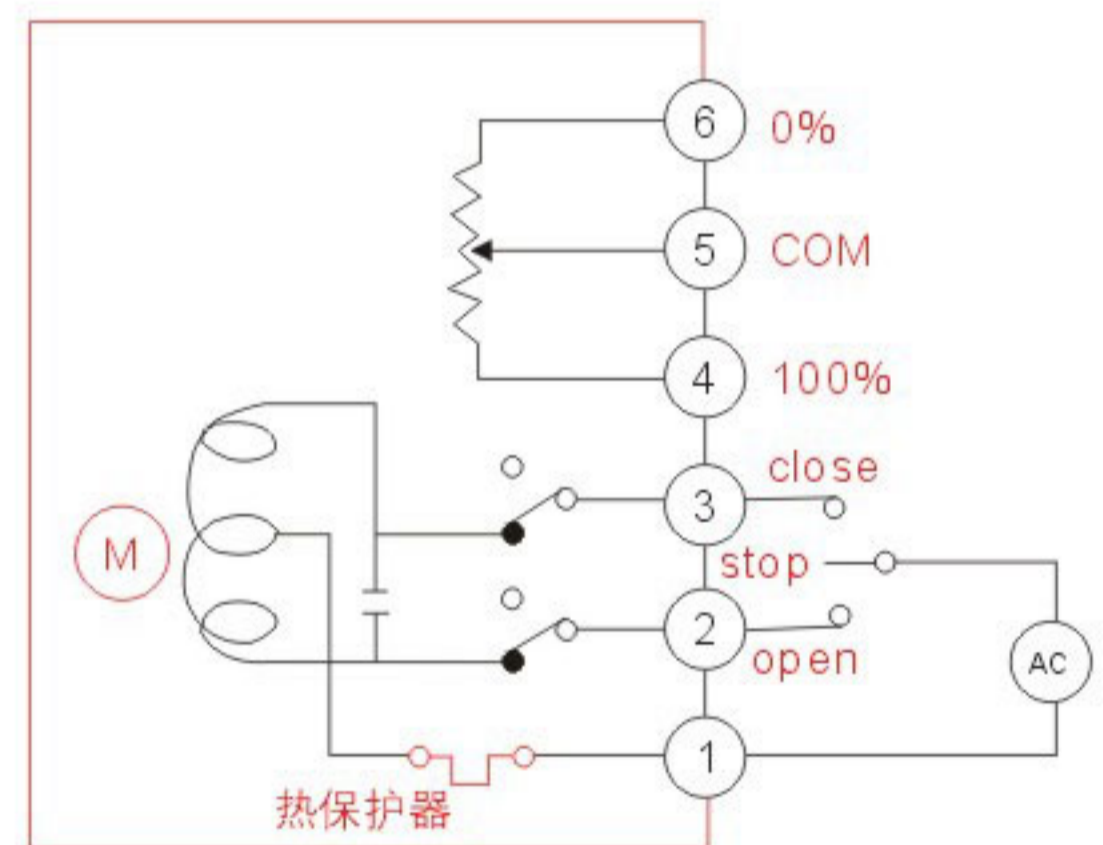
Input (AC220V, AC110V, AC24V) voltage control signals to open and close the valve's electric actuator and output a set of switch signals. The input signal and the output signal are relatively independent.



#### 带无源触点和电阻信号型 Passive contact and resistance signal type

输入 (AC220V, AC110V, AC24V) 电压控制信号实现开启、关闭阀门的电动执行器，同时输出与阀门电支执行器开度位置相对应的 (1K、3K、5K) 电阻信号和一组无源触点信号。

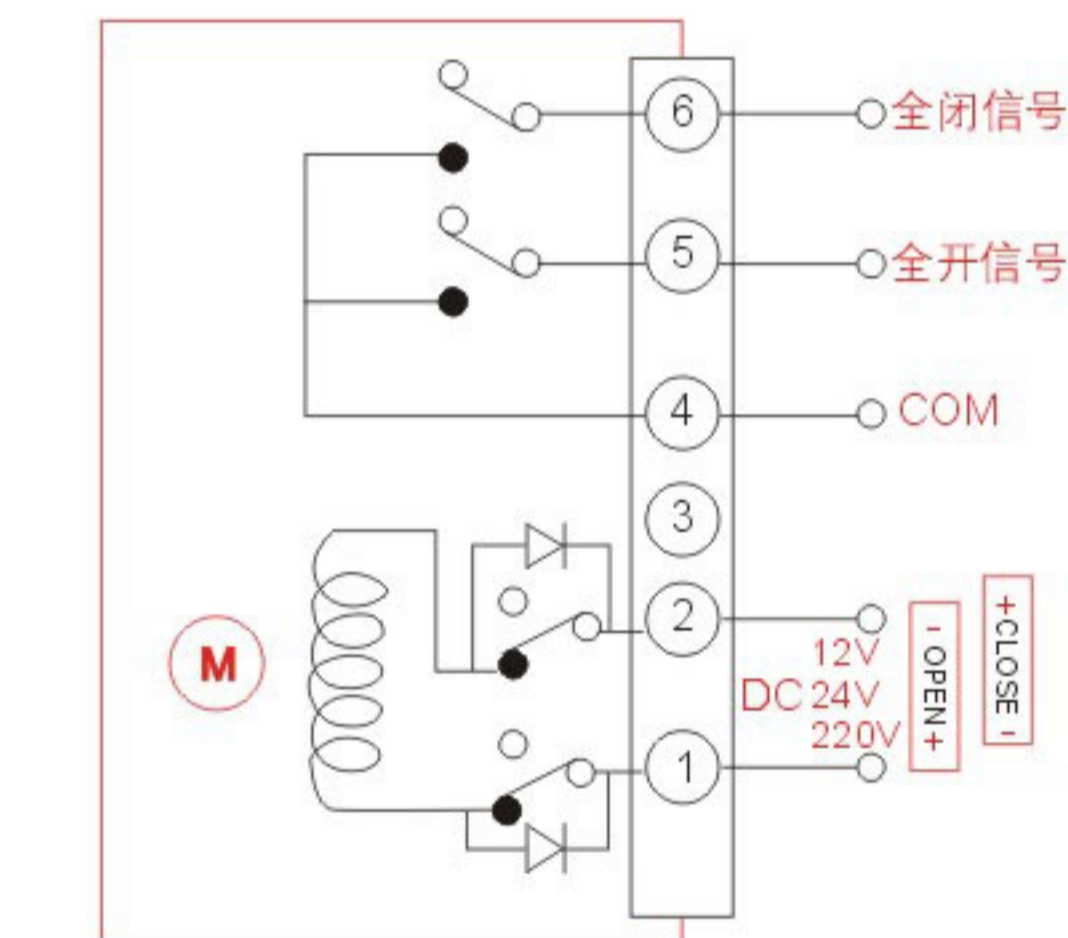
Input (AC220V, AC110V, AC24V) voltage control signal to achieve the opening and closing of the valve electric actuator, and output and valve electric actuator position corresponding to (1K, 3K, 5K) resistance signal and a set of passive contact signals.



#### 带电阻信号(1K、3K、5K)输出型 With resistance signal (1K, 3K, 5K) output type

通过输入 (AC220V, AC110V, AC24V) 电压信号实现对阀门的开启、关闭阀门电动执行器，同时输出与阀门电动执行器开度位置相对应的 (1K、3K、5K) 电阻信号。

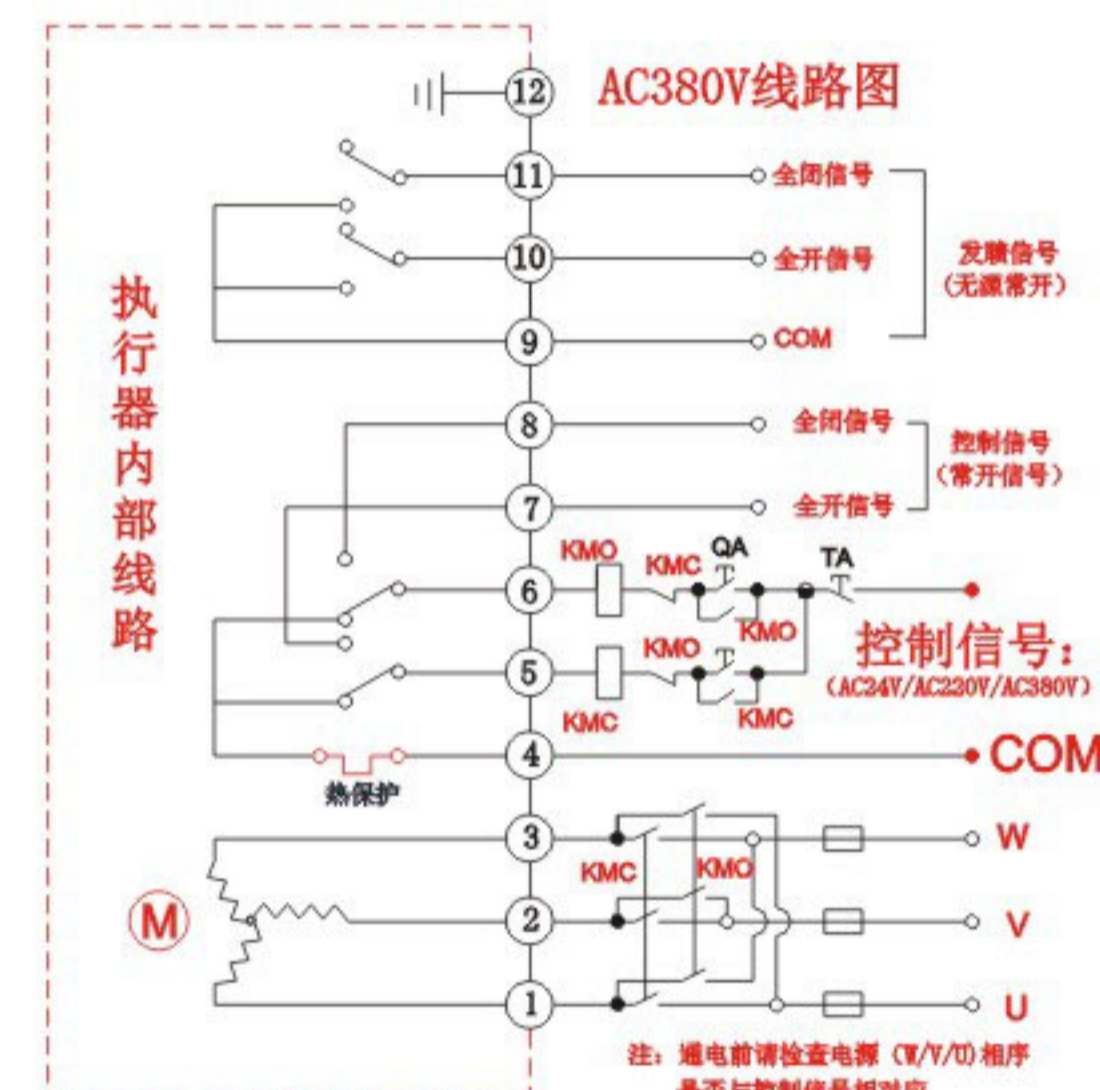
By input (AC220V, AC110V, AC24V) voltage signal, the valve electric actuator is opened and closed, and output resistance signal corresponding to the opening position of valve electric actuator is output at the same time (1K, 3K, 5K).



#### 直流电机(DC)控制型 DC (DC) controlled

通过外部电路控制，实现直流电源正、负极切换，使阀门电源正、负极切换，使阀门电动执行器开启、关闭。同时输出一组无源触点信号。

Through the control of the external circuit, the DC power supply is switched on and negative electrode is switched to switch the valve power and negative electrode to make the valve actuators open and close. At the same time, a group of passive contact signals are output.



#### 三相交流(AC380V)控制型 Three-phase AC (AC380V) -controlled

通过外部电路控制，实现控制电路换相，使阀门电动执行器开启、关闭。同时输出一组无源触点信号。

The three-phase AC voltage input AC380V to achieve commutation control circuit, control valves open and close, while the output of a group of independent passive signal (must be configured to an external controller).

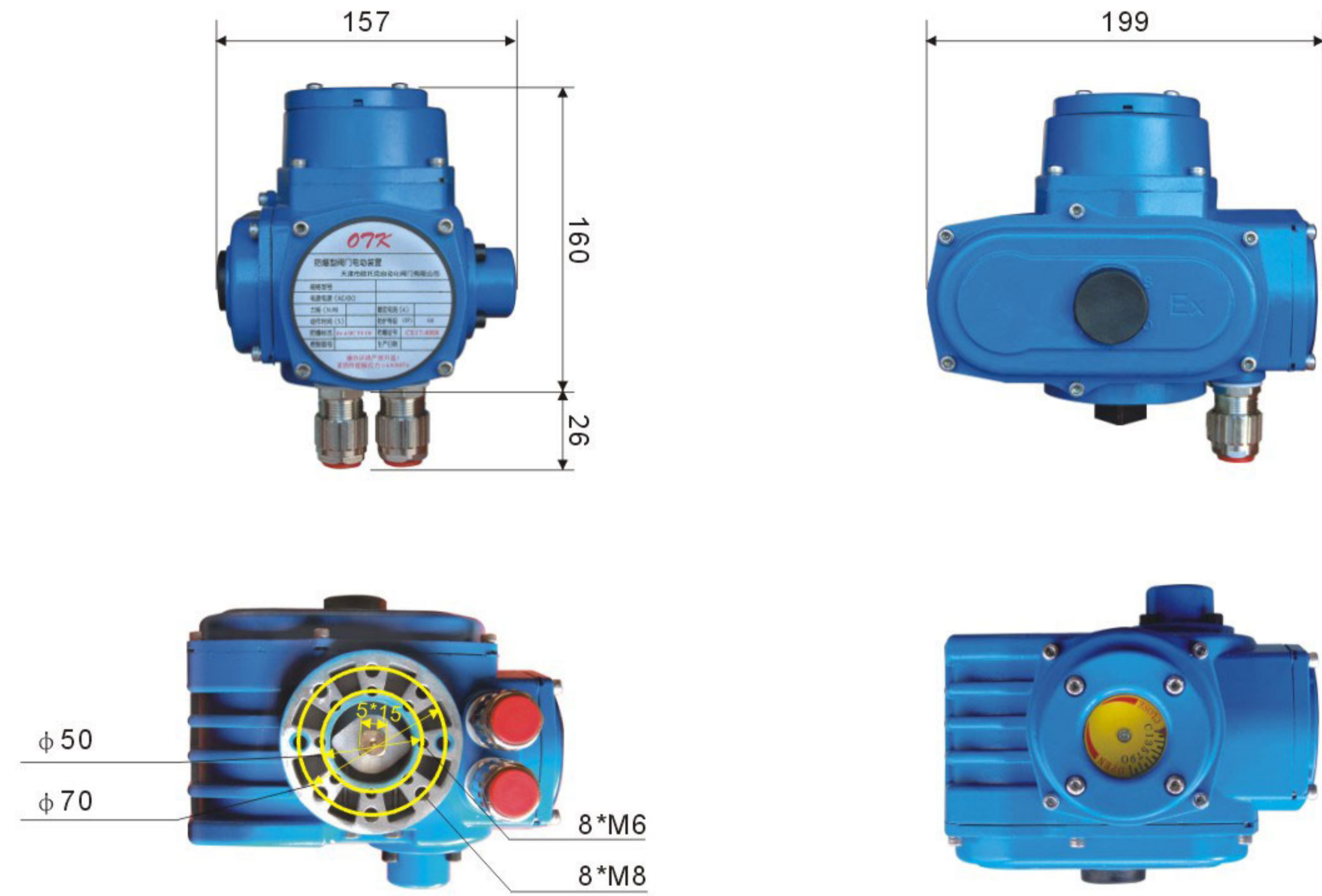
### 性能参数表 Performance parameters table

型号 Type	OTK-5	OTK-10	OTK-15	OTK-25	OTK-50	OTK-60	OTK-100	OTK-200
电源 Power supply	AC24V/AC110V/AC220V/AC380V							
力矩 Torque	50N·M	100N·M	150N·M	250N·M	500N·M	600N·M	1000N·M	2000N·M
行程时间 Travel time	10/20S	5S/10S/15S/30S/60S					50S	100S
电机功率 Motor power	15W	25W	30W	45W	90W	100W	110W	110W
保护 Protection	电机过热保护器 (120℃) Motor overheat protector (120℃)							
转动角度 Angle of rotation	0~90°							
环境温度 Ambient temperature	-10~60°							
耐压值 Withstand voltage	1500V							
启动电流 starting current	0.25A	0.6A	0.68A	0.76A	1.2A	1.28A	1.36A	1.36A
工作电流 Working current	0.25A	0.52A	0.55A	0.70A	1.15A	1.2A	1.28A	1.28A
防护等级 The protection grades	相当于IP67标准 Equal to the ip67 standard							
限位 Limit	电动时：全开全闭极限开关； 手动时：机械挡块。 Electric time: fully open all closed limit switch; Manual: mechanical stop.							
重量 Weight	2.8kg	4.2kg	4.5kg	7.2kg	7.5kg	7.5kg	12.5kg	12.5kg
调节式 Regulating type	OTK-5Z	OTK-10Z	OTK-15Z	OTK-25Z	OTK-50Z	OTK-60Z	OTK-100Z	OTK-200Z
输入信号 Input signal	4~20mA 0~10V 1~5V							
输出信号 output signal	4~20mA 0~10V 1~5V							

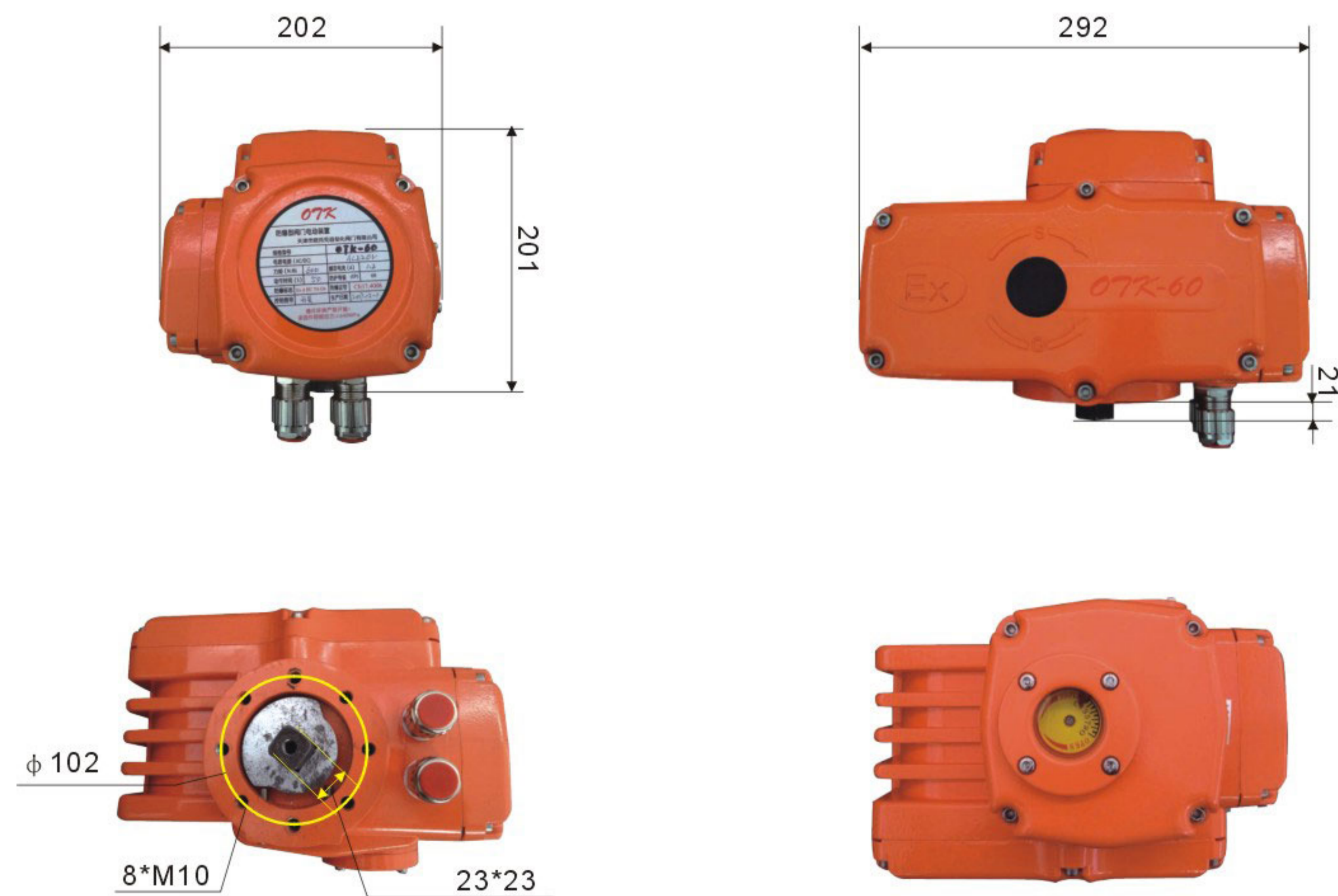
防爆型外型尺寸

Explosion-proof type size

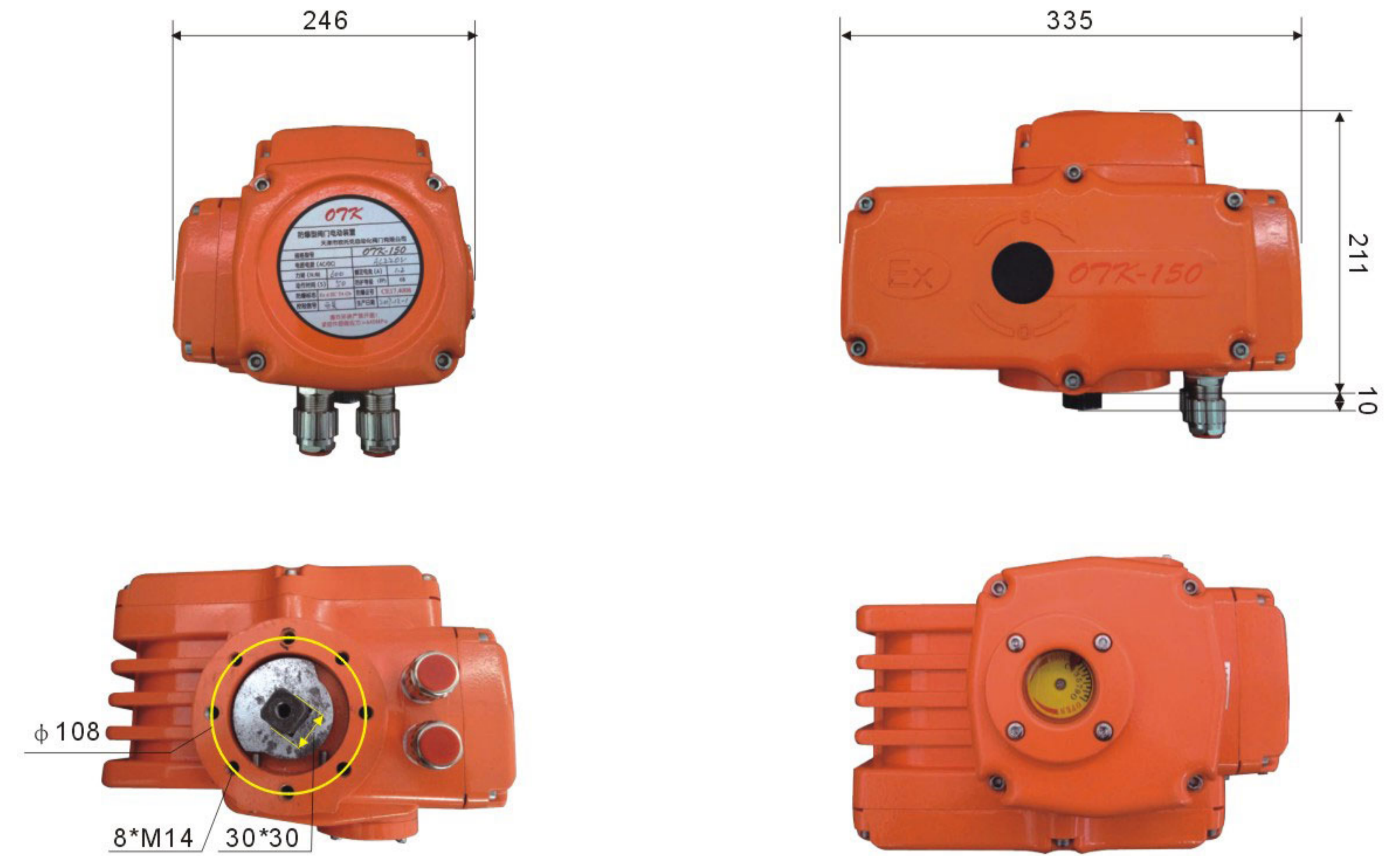
OTK-8、16外形图 OTK-8、16 appearance pictures



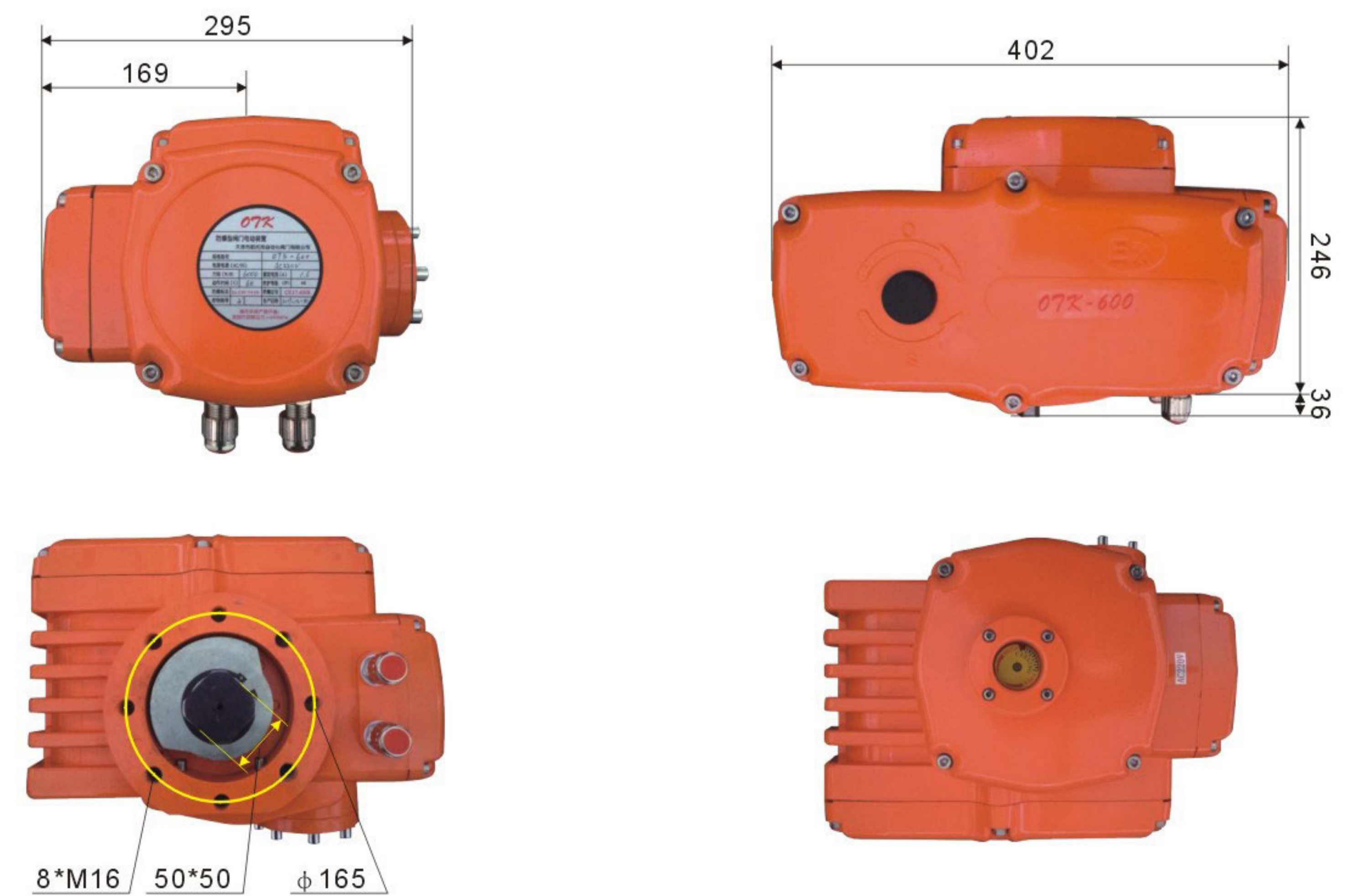
OTK-30、60外形图 OTK-30、60 appearance pictures



OTK-150、300外形图 OTK-150、300 appearance pictures



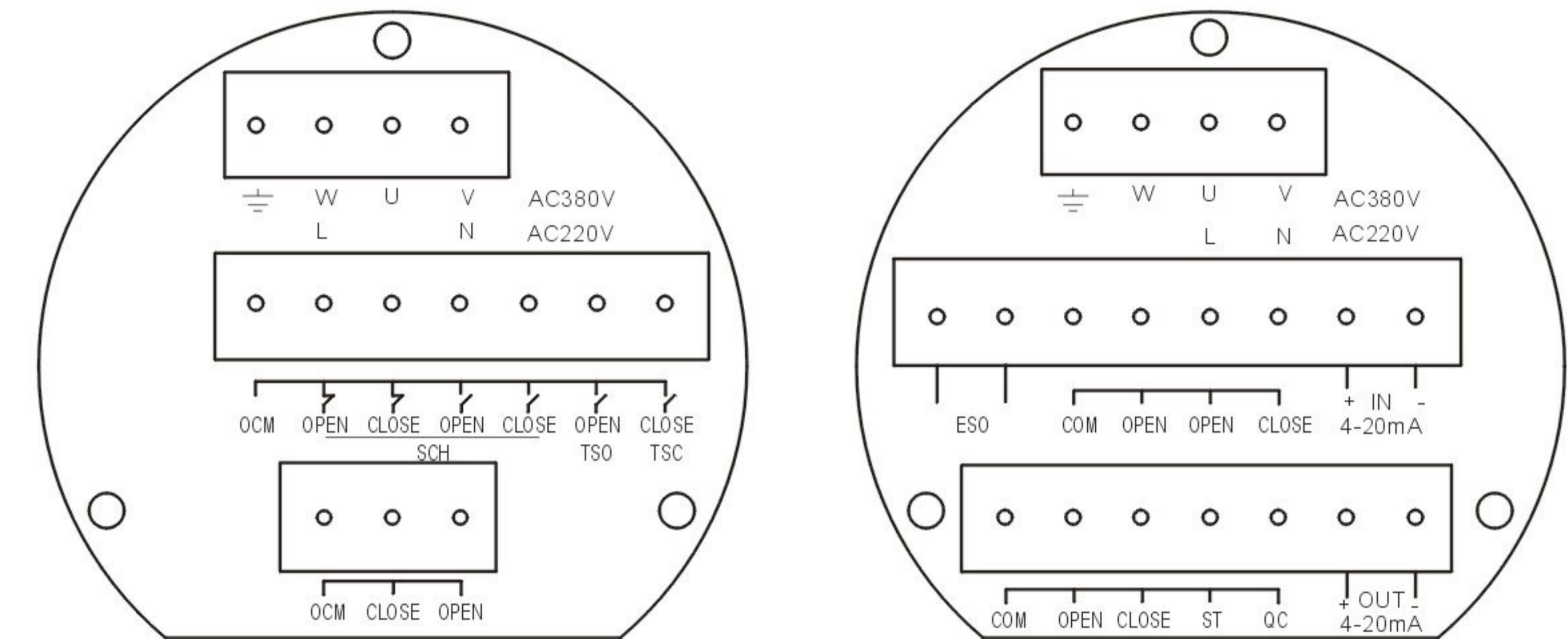
OTK-400、600外形图 OTK-400、600 appearance pictures



防爆型性能参数表 Explosion-proof performance parameter table

型号 Type	OTK-8	OTK-16	OTK-30	OTK-60	OTK-150	OTK-300	OTK-400	OTK-600
电源 Power supply	DC24V/DC220V/AC24V/AC220V/AC380V							
扭矩 Torque	80N·M	160N·M	300N·M	600N·M	1500N·M	3000N·M	4000N·M	6000N·M
行程时间(s) Travel time	15	30	50				100	
电机功率(W) Motor power	25	25	45	50	90	90	500	500
保护 Protection	热保护、电气保护、机械保护 Thermal protection, electrical protection, mechanical protection							
转动角度 Angle of rotation	90°~多回转							
环境温度 Ambient temperature	-40~120°							
耐压值 Withstand voltage	1500V							
启动电流 starting current	0.25	0.6	0.8	0.8	1.2	1.2	2.0	2.5
工作电流 Working current	0.25	0.6	0.6	0.6	1.0	1.0	1.5	1.5
防护等级 The protection grades	IP68							
限位 Limit	电动时：全开全闭极限开关； 手动时：机械挡块。 Electric time: fully open all closed limit switch; Manual: mechanical stop.							
重量 Weight	4.0	4.0	23	25	40	42	50	55
调节式 Regulating type	无源信号控制 0~10VDC/ 4~20mA/ 总线控制 0~10VDC/ 4~20mA/ bus control for passive signal control							
输入信号 Input signal	无源信号控制 0~10VDC/ 4~20mA/ 总线控制 0~10VDC/ 4~20mA/ bus control for passive signal control							
输出信号 output signal	无源信号控制 0~10VDC/ 4~20mA/ 总线控制 0~10VDC/ 4~20mA/ bus control for passive signal control							

防爆型线路图  
Explosion-proof wiring diagram



普通开关型

智能一体调节型

防爆型特点  
Characteristics of explosion-proof type



## ZXQ2003/4电动阀门智能定位器 ZXQ 2003 / 4 electric valve intelligent locator

### 概述 Summarize

ZXQ2004电动阀门智能定位器是以工业单片机为核心的智能信号采集控制系统, 体积小, 可选择安装在电动执行器的接线盒内或以DIN导轨方式固定在外, 能直接接收工业仪表或计算机输出的4~20mADC信号(其它输入信号类型可在出厂前制定), 与电位器反馈的电动执行器配套对各种阀门或装置进行精确定位操作, 能对电动执行器的转角(或位移)进行自由标定, 同时输出4~20mADC的反馈信号(或位移)反馈转换信号, 可按键精确设定执行器转角位置的下限位置 and 上限位置, 定位器采用3个按键操作, 9个LED灯可直接显示定位器模式, 4位数码LED通过按键切换显示阀位实际开度值、阀位设定开度值、定位器壳内温度, 操作方便。

ZXQ2004 intelligent electric valve positioner is intelligent signal acquisition and control system based on industrial microcontroller as the core of the small size, can be installed in the junction box of the electric actuator or to DIN rail fixed on the outside, can directly receive industrial instrumentation or computer 4~20mADC signal output (other types of input signals can be formulated in the factory), and the accurate positioning of the valve device or electric actuators potentiometer feedback operation, can rotate for the electric actuator (or displacement) free calibration, actuator displacement and output 4~20mADC (or displacement) feedback signal conversion, can be key to accurately set the lower limit position of the actuator position and angle the upper limit position locator using 3 button operation, 9 LED lights can directly display the locator mode, 4 digital LED display through the key switch valve. The opening value, the valve position setting value and the temperature in the locator shell are easy to operate.

### 主要技术指标 Main technical indicators

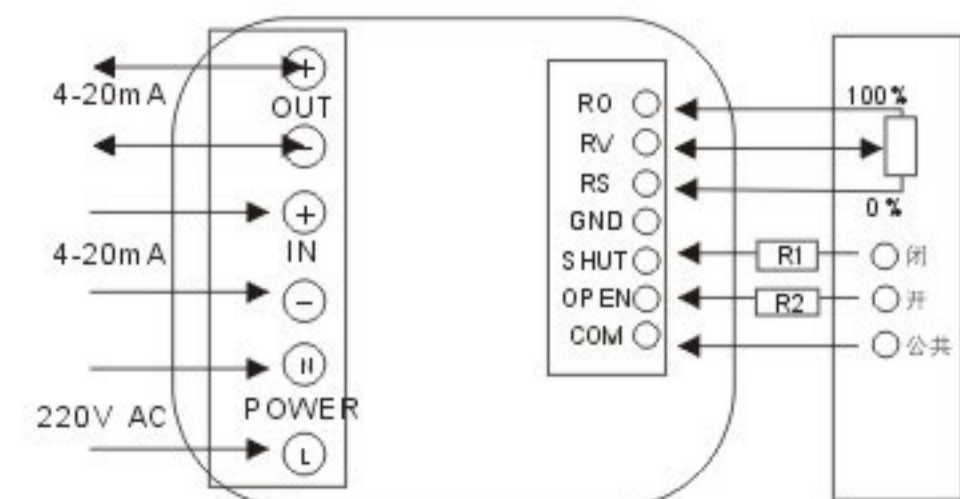
- 控制精度: 0.1~3.0%(通过U4参数可调)
- 可接电动执行器反馈信号: 电位器500Ω~10KΩ
- 可接收外部控制信号(DC): 4~20mA (1~5V, 0~10V开关量等出厂前定制)
- 输入阻抗: 250Ω;
- 通过修改U1参数可设定: ①DRTA/正动作, RVSA逆动作模式; ②输入信号中断时“中断”模式OPEN(开)、STOP(停)、SHUT(闭)
- 可选: ①可控硅输出(AC,600V,25A)②断路器输(AC,250V,25A) ◆定货时指明
- 输出执行器位置信号: 低漂移出4~20mADC对应执行器全闭至全开, 信号
- 完全与输入隔离(光电隔离), 输出负载 ≤ 500Ω
- 环境温度: 0~70℃, 温度: 35~85%
- 又超温保护功能: 定位器壳内温度 > 70℃时, 定位器停止对执行器的开闭控制。
- Control precision: 0.1~3.0% (adjustable through U4 parameters)
- Electric actuator feedback signal: potentiometer 500Ω~10KΩ
- Receive external control signal (DC): 4~20mA (1~5V, 0~10V switch quantity, etc. before factory customization) input impedance: 250Ω ;
- It can be set by modifying the U1 parameters: (1) DRTA/ positive action, RVSA inverse operation mode; (2) "Interrupt" mode OPEN (open), STOP (stop), SHUT (closed)
- When the input signal is interrupted. Optional: thyristor output (AC, 600V, 25A) of the relay transmission (AC, 250V, 25A) ◆ specified when ordering
- Output actuator position signal: low drift out of 4~20mADC corresponding to fully closed actuators, signal
- Completely isolated from the input (photoelectric isolation), negative output is less than 500Ω .
- Ambient temperature: 0~70℃, temperature: 35~85%
- And over temperature protection function: positioner shell temperature is more than or equal to 70 DEG C, the locator to stop opening and closing control actuator.

- 外形尺寸: ZXQ2003→77mm(底面长)×76mm(底面宽)×51(高); ZXQ2004→74mm(底面长)×57mm(底面宽)×45(高);
- 可通过按键自由标定输入信号所对应执行器的动作区间(一般标定为电动执行器全闭、全开位置)
- 可设定上下限位点
- 执行器堵转检测控制功能: 如控制执行器发生堵转持续3~4S, 定位器则断开控制输出1min; 反复检测控制, 至堵转排除。
- 可设定自调精度: 执行器在工作中, 无法定位, 出现来回振动3次, 定位器自动把定位精度降低1/1000(即: 原精度+1/1000), 反复调节至适合的控制精度。设置参数U0(000.X)
- 密码锁, 防止误操作
- 防执行器频繁启动功能
- 带错误代码指示故障原因(E\_OX)
- 按输入信号和执行器转角位置智能步距调整精确定位。
- Size: ZXQ2003, 77mm (bottom length) \* 76mm (bottom width) x 51 (high); ZXQ2004, 74mm (bottom length) \* 57mm (bottom width) x 45 (high);
- The action interval of the actuator corresponding to the input signal can be freely calibrated by key press (generally calibrated to the full closed and full open position of the electric actuator.
- The upper and lower limit loci can be set.
- The control function of the actuator's blocking detection is: if the control actuator is stopped and rotating continuously for 3~4S, the locator will disconnect and control the output 1min.
- It can set self tuning accuracy: the actuator is unable to locate in the work, and there are 3 times of return and vibration. The locator automatically reduces the positioning accuracy by 1/1000 (i.e., the original accuracy +1/1000), and repeatedly adjusts to the appropriate control accuracy. Set the parameter U0 (000.X).
- Password lock to prevent misoperation.
- The anti actuators frequently start the function.
- The error code indicates the cause of the failure (E\_OX).
- The precise positioning of the intelligent step is adjusted according to the input signal and the angle position of the actuator.

### 智能调节控制型 Intelligent control type regulation

特征: 智能控制模块置于阀门电动执行器本体内, 无须外接伺服放大器。通过输入 4~20mA、DC1~5V、DC0~10V信号, 控制阀门电动执行器 0~90度范围内任意开度。实现高精度, 智能化控制。

Features: the intelligent control module is placed in the electric actuator of the valve, and the servo amplifier is not needed. By input of 4~20mA, DC1~5V and DC0~10V signals, control the open degree of the valve electric actuator in the range of 0~90 degree. Realize high precision and intelligent control.



## 智能一体调节型(非侵入智能调节型) Electric butterfly valve

### 精小智能型控制模块选型参数 Fine intelligent control module Selection of parameters

#### 1、工作电压

标准为AC220V、AC380V 其他电压需定制, AC220V与AC380V电压, 价格有差异。

#### 2、安装结构

有精小型底盖、QT型法兰、接线盒三种可选, 价格有差异。

#### 3、功能确认

开关型: 远程开关信号为DC24V  
调节型: 标准为4-20mA输入输出特殊信号类型需定制, 价格有差异。

请与您的客户确认好  
模块选型的关键参数



#### 4、中英文

液晶显示、面板丝印、控制板丝印, 中文与英文需确认, 价格有差异。

#### 5、阀门检测方式

电位器与绝对值编码器反馈二种方式, 此为选配件, 需订制时另算价格。

#### 6、总线型需确认

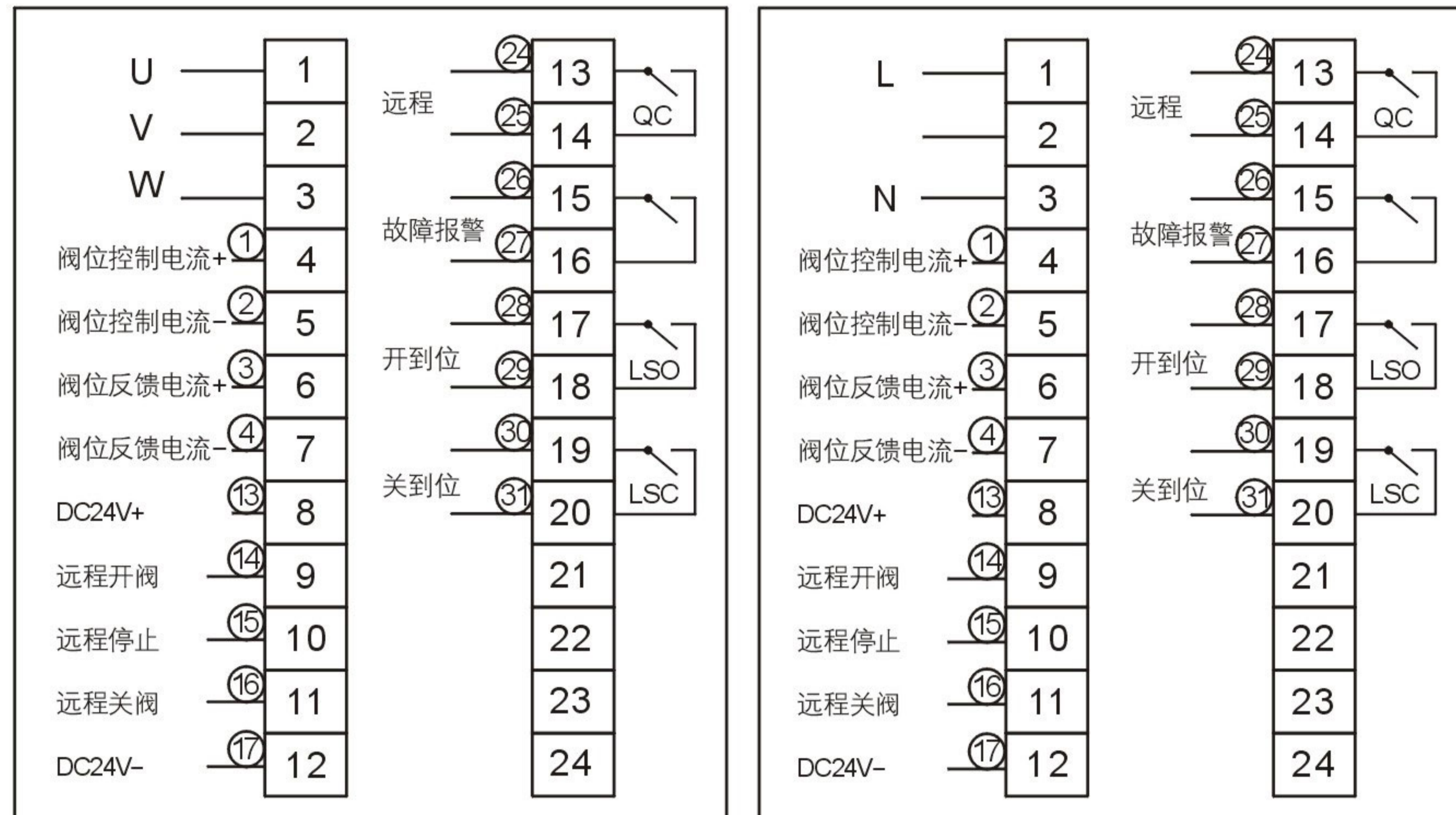
总线类型: MODBUS与PROFI-BUS二种, PROFI-BUS有单通道与双通道之分, 价格有差异。

### 功能介绍 Function introduction

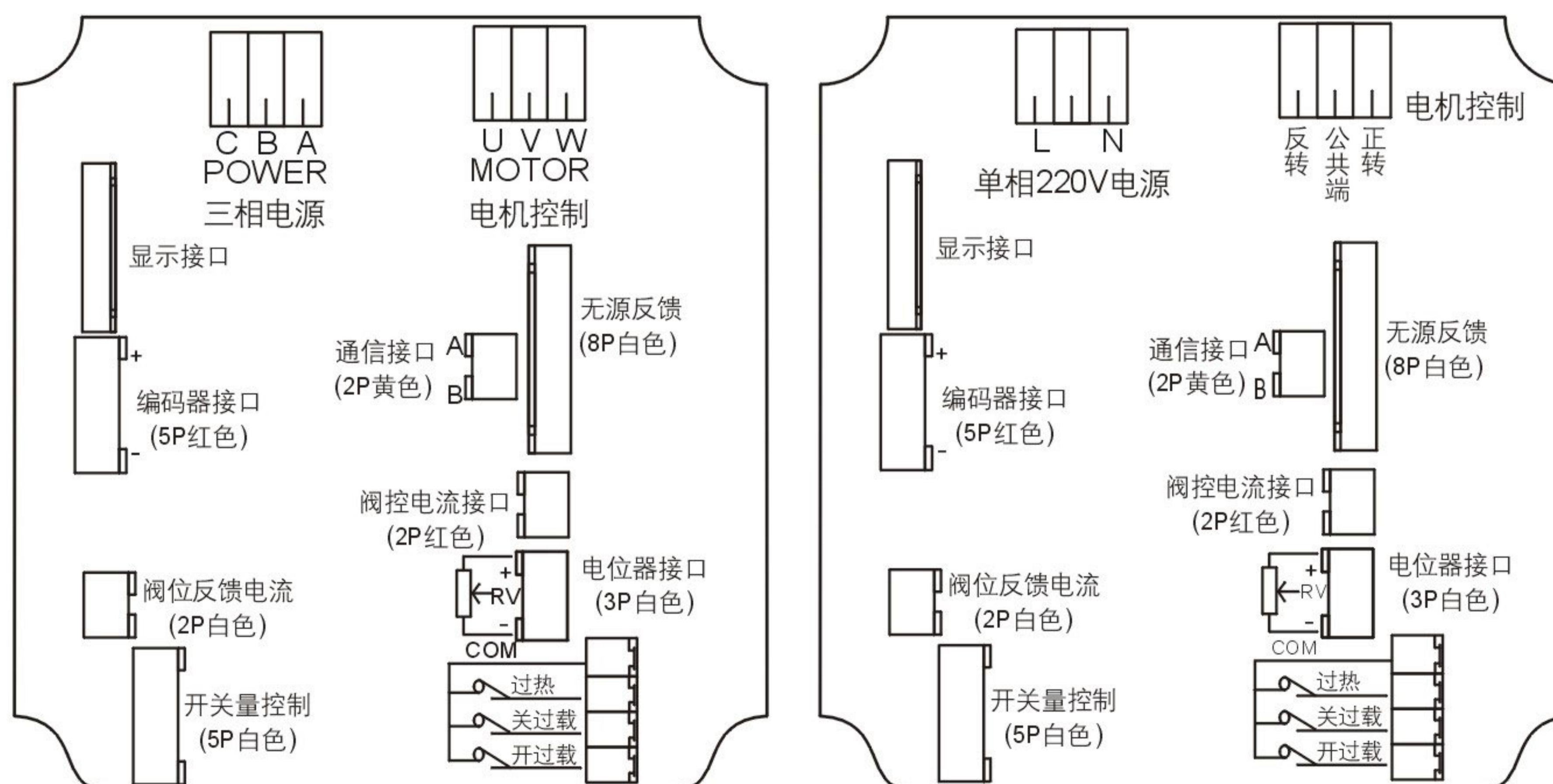
功能及资源表	内容		信号类型	配置	备注
	电装信号	开、关过力矩、过热	无源DI	✓	常闭
阀位检测	电位器	电压信号	✓	客户自配	
	编码器	SPI	✓	可选配置	
位置反馈	开到位、关到位	无源干触点	✓	单触点	
	4-20mA	模拟量信号	✓	0-10V、1-5V等可定制	
反馈	远程/现场	无源干触点	✓	单触点	
	综合故障	无源干触点	✓	单触点	
	失信号保护	系统内部	✓	调节型控制信号检测	
故障信号	缺相、换相	系统内部	✓	三相电源检测	
	开关型: 远程开、远程关、远程停	DC24V DI	✓	内、外供电方式可选	
	调节型: 4-20mA	模拟量信号	✓	0-10V、1-5V等可定制	
红外遥控器	无线红外	✓	标配, 遥控器离达5M, 一对一可定制		
ESD	ESD紧急控制	DC24V DI	✓	远程停可设定为(内部DC24V供电)	
总线	Modbus RTU、Profibus DP、CANBUS	协议指令	✓	其他协议可定制	
精度	默认1%	系统内部	✓	可设定	
电流标定		系统内部	✓	可对应标定设置	
工作形式	电动执行器工作形式	系统内部	✓	电开型、电关型选定	

### 接线端子定义表、三相接线图、单相接线图

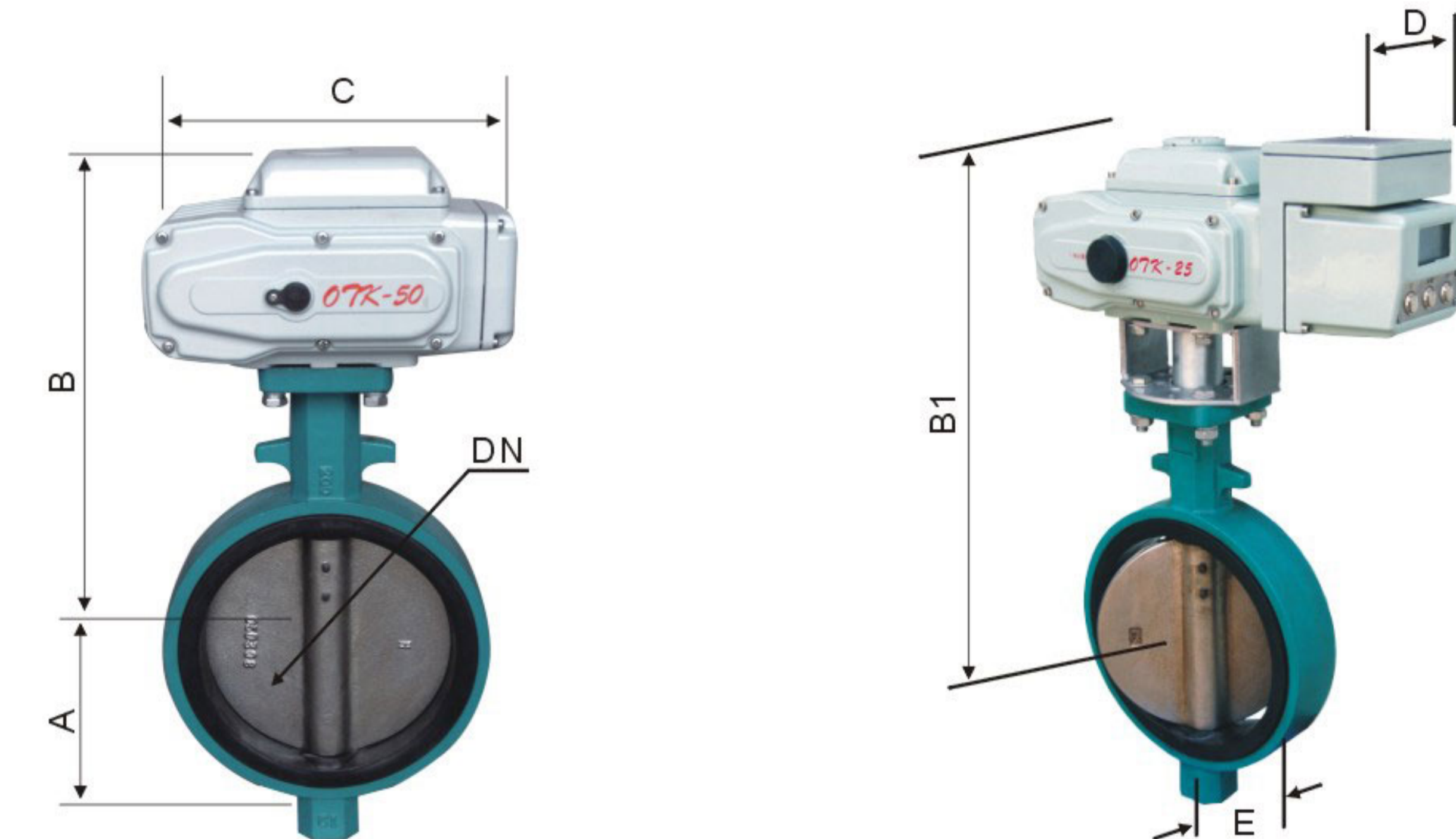
The wiring terminal defines the table, the three-phase wiring diagram and the single phase wiring diagram



### 线束标识图 Wiring diagram



### 电动蝶阀 Electric butterfly valve



1. 电源电压: DC24V、DC220V、AC24V、AC110V、AC220V、AC380V;
2. 介质类型、温度、压力;
3. 控制类型: 开关型、触点型、信号输出型、智能调节型;
4. 智能调节型: 输入信号(DC1-5V、DC1-10V、4-20mA)、输出信号(DC1-5V、DC1-10V、4-20mA);

- When ordering please specify that.
1. Power supply voltage: DC24V, DC220V, AC24V, AC110V, AC220V, AC380V;
  2. Medium type, temperature and pressure;
  3. Control type: switch type, contact type, signal output type, intelligent control type;
  4. Intelligent modulating type: input signal (DC1-5V, DC1-10V, 4-20mA), output signal (DC1-5V, DC1-10V, 4-20mA);

### 外型尺寸(蝶阀压力PN16) Size of appearance(butterfly valve pressure PN16)

公称通径DN	A	B	B1	C	D	E
25	52	302	349	155	101	32
32	57	302	349	155	101	32
40	57	302	349	155	101	32
50	62	306	353	155	101	43
65	70	315	362	155	101	46
80	89	321	368	155	101	46
100	106	342	392	208	120	52
125	120	357	407	208	120	56
150	132	396	446	256	156	56
200	164	422	489	256	156	60
250	200	447	514	256	156	68
300	238	588	568	280	156	78
350	280	629	629	280	156	78
400	302	662	662	280	156	102
450	335	693	693	280	156	114
500	360	729	729	280	156	127

## 电动二通球阀

Electrically operated two ball valves



1. 电源电压: DC24V、DC220V、AC24V、AC110V、AC220V、AC380V;
2. 介质类型、温度、压力;
3. 控制类型: 开关型、触点型、信号输出型、智能调节型;
4. 智能调节型: 输入信号(DC1-5V、DC1-10V、4-20mA)、输出信号(DC1-5V、DC1-10V、4-20mA);

When ordering please specify that.

1. Power supply voltage: DC24V, DC220V, AC24V, AC110V, AC220V, AC380V;
2. Medium type, temperature and pressure;
3. Control type: switch type, contact type, signal output type, intelligent control type;
4. Intelligent modulating type: input signal (DC1-5V, DC1-10V, 4-20mA), output signal (DC1-5V, DC1-10V, 4-20mA);

### 外型尺寸 Size of appearance

公称通径DN	D 1.6/2.5	D1 1.6/2.5	H 1.6/2.5	L 1.6/2.5	L1 1.6/2.5
15	95	65	256	130	155
20	105	75	260	140	155
25	115	86	266	150	155
32	136	100	270	165	155
40	146	110	312	180	208
50	160	125	325	200	208
65	180	145	336	220	208
80	195	160	365	250	256
100	215/230	180/190	400	280	256
125	245/270	210/220	420	320	256
150	280/300	240/250	440	360	288
200	335/360	295/310	470	400	288

## 智能电动调节球阀

Intelligent electrical control ball valves



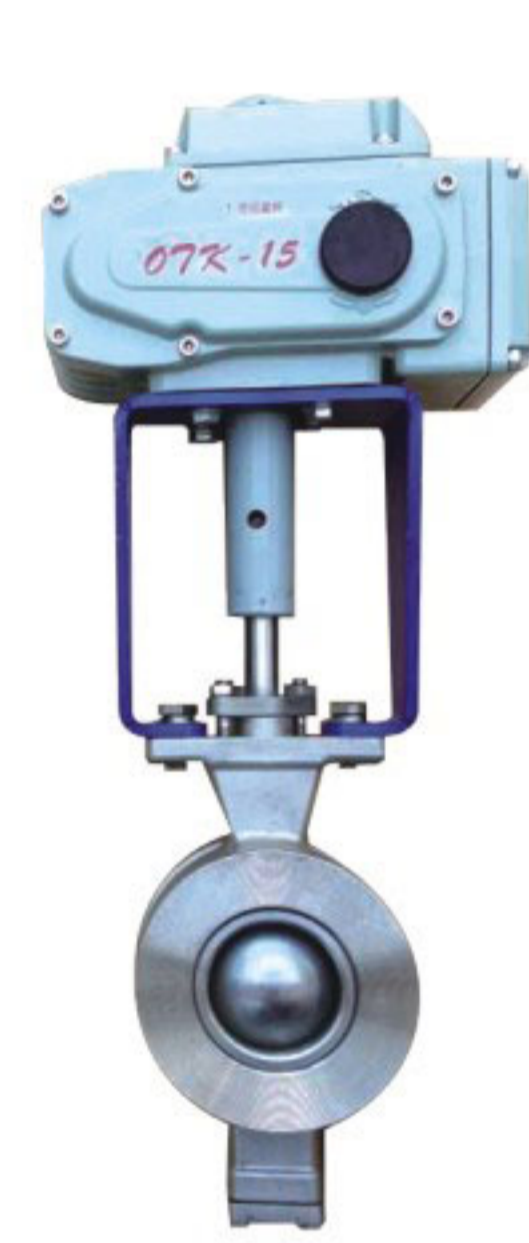
1. 电源电压: DC24V、DC220V、AC24V、AC110V、AC220V、AC380V;
2. 介质类型、温度、压力;
3. 控制类型: 开关型、触点型、信号输出型、智能调节型;
4. 智能调节型: 输入信号(DC1-5V、DC1-10V、4-20mA)  
输出信号(DC1-5V、DC1-10V、4-20mA)

When ordering please specify that.

1. Power supply voltage: DC24V, DC220V, AC24V, AC110V, AC220V, AC380V;
2. Medium type, temperature and pressure;
3. Control type: switch type, contact type, signal output type, intelligent control type;
4. Intelligent modulating type: input signal (DC1-5V, DC1-10V, 4-20mA), output signal (DC1-5V, DC1-10V, 4-20mA);

### 外型尺寸 Size of appearance

公称通径DN	D	D1	H	L	Z-d1	L1
15	95	65	218	32	4-14	155
20	105	75	223	38	4-14	155
25	115	86	230	45	4-14	155
32	136	100	236	55	4-18	155
40	146	110	243	62	4-18	208
50	160	125	250	72	4-18	208
65	180	145	260	95	4-18	208
80	195	160	278	120	8-18	256
100	215	180	338	145	8-18	256
125	245	210	352	200	8-18	256
150	280	240	382	225	8-23	288
200	335	295	390	230	8-23	288

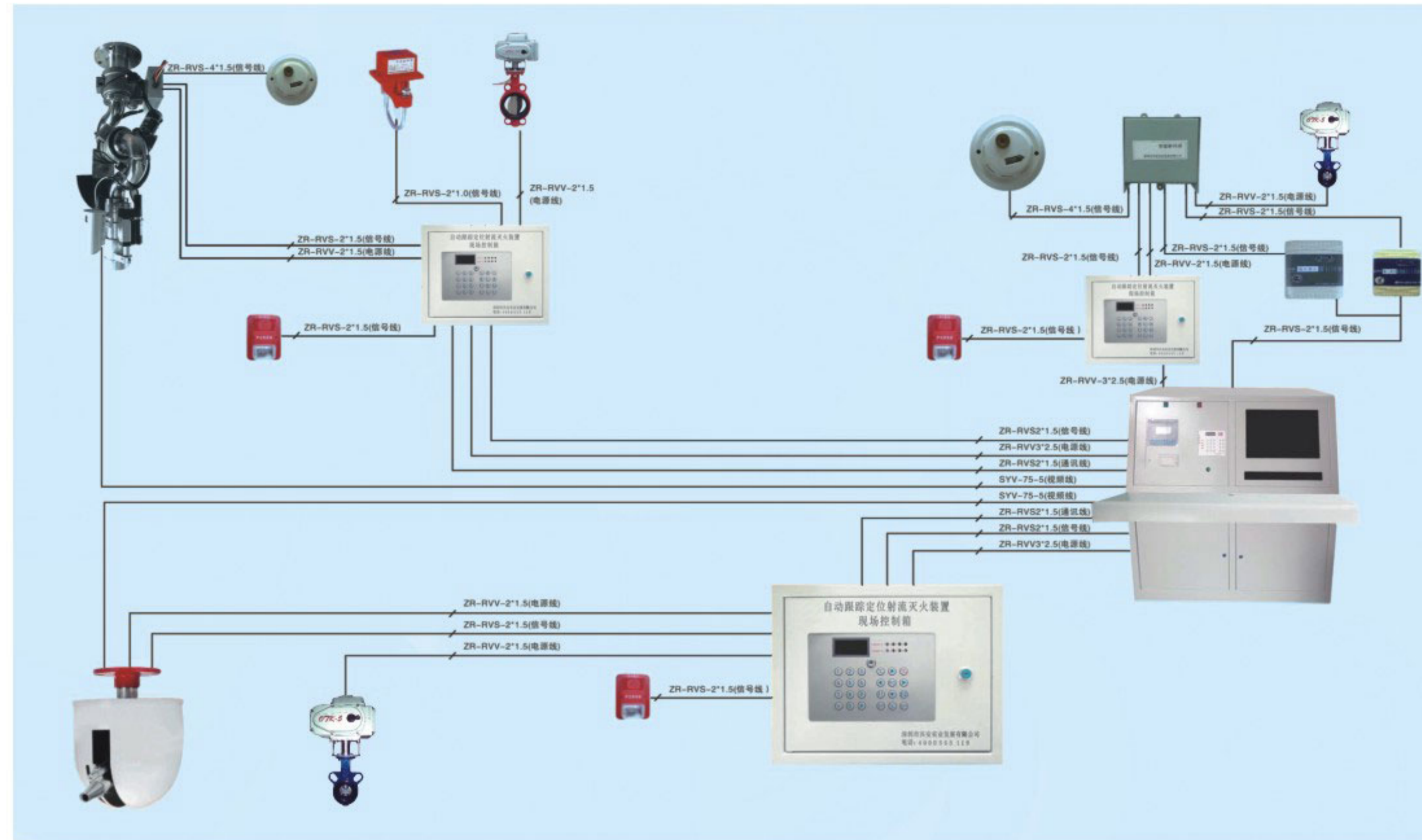


**消防水炮快开电动蝶阀**  
Fire gun quick opening electric butterfly valve

本产品适用于配备重型消防水炮车、消防舰艇、工矿企业、仓库、油田、储罐的固定式消防灭火设备。

该电动蝶阀响应速度快、安装灵活、维护方便、可靠性高等优点。

This product is suitable for fixed fire with a heavy fire artillery, fire ships, industrial and mining enterprises, warehouse, oil tank, fire fighting equipment. The electric butterfly valve has the advantages of quick response speed, flexible installation, convenient maintenance and high reliability.

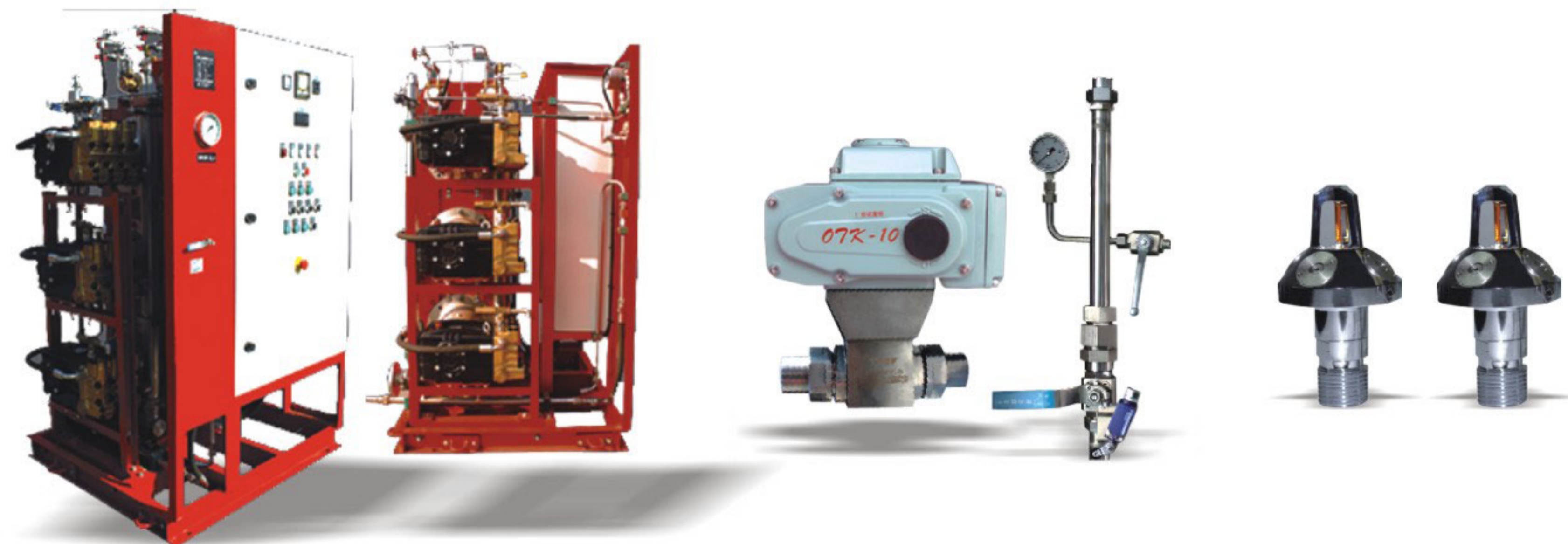


**消防高压细水雾电动阀**  
Fire control high pressure water mist electric valve

本产品适用于配备地铁、重型消防水炮车、消防舰艇、工矿企业、仓库、油田、储罐的固定式消防灭火设备。

该电动高压阀响应速度快、安装灵活、维护方便、可靠性高等优点。

This product is suitable for fixed fire with heavy artillery, subway, fire fire ships, industrial and mining enterprises, warehouse, oil tank, fire extinguishing equipment. The electric high pressure valve has the advantages of quick response speed, flexible installation, convenient maintenance and high reliability.



**人防密闭电动阀**  
Airtight closed electric valve

