

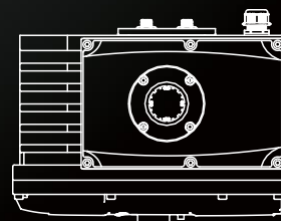
**Pneutork**



# pneutork

***ELECTRIC ACTUATOR***

*Intelligent Process Control*





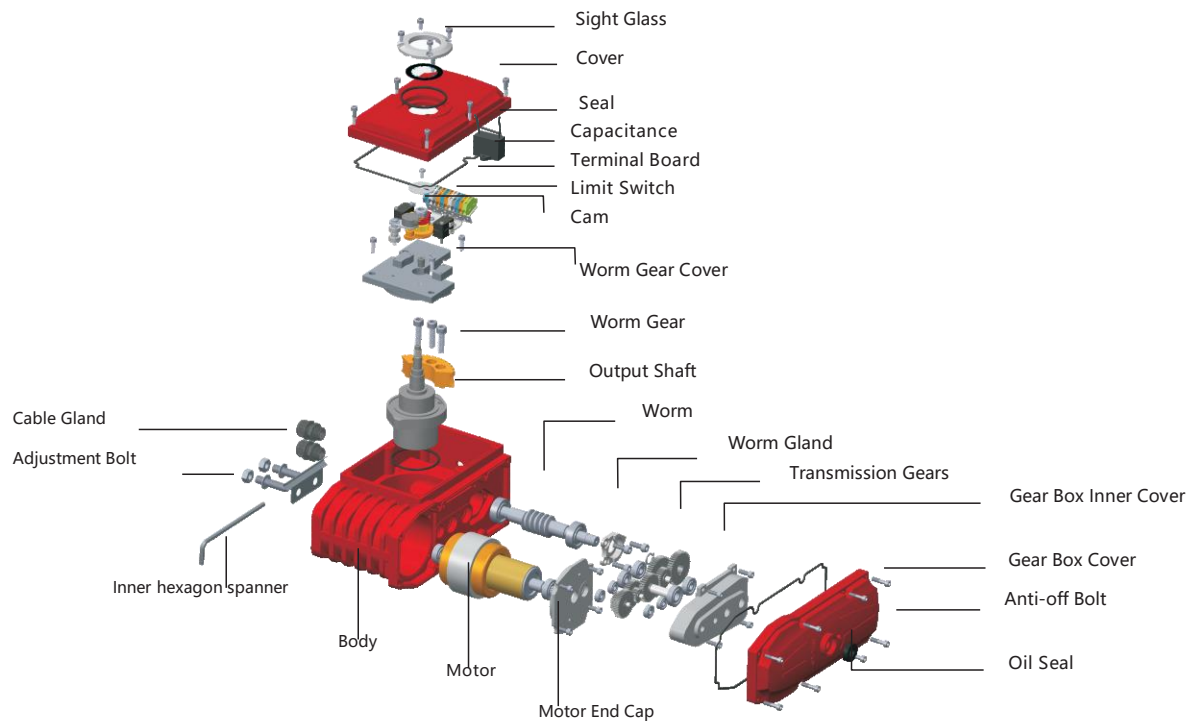
## Summary

**Pneutork** 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).

## Performance Feature

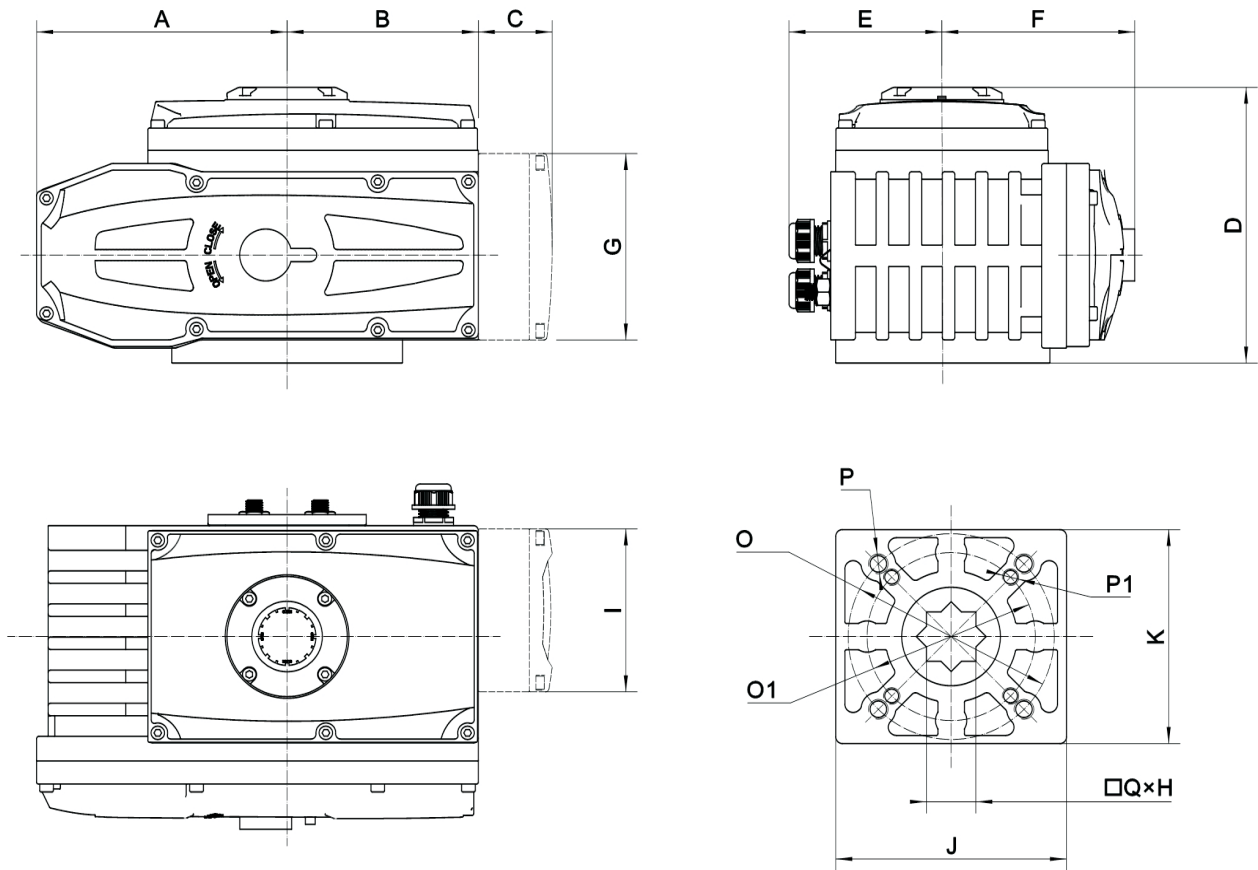
1. Actuator body —The body is made of hard aluminum alloy with anodize treatment and polyester powder coating. It is highly corrosion-resistant and waterproof level is IP67. IP68 is optional.
2. Motor —Fully enclosed squirrel-cage motor with small size, large torque, small inertia force and F class insulation rating. Internal hot protection switch avoids damaging of the motor.
3. 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. 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. Seal — It has good seal performance. And its protection class is IP67, also IP68 is optional.
6. 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. 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. Anti-off bolt — The bolt will attach to the cover when removing the cover. All external bolts are made of stainless steel.
9. 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. 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.



## Performance Parameter

Model	Max output torque	Operating time to 90° (S)		Motor (W)		Single-phase rated current (A)						Weight
	N - M	AC	DC	AC	DC	AC24V	AC110V	AC220V	AC380V	DC24V	DC220V	Kg
PTL-003	30	30	/	8	/	/	/	0.2	/	/	/	2.1
PTL-005	50	30	10	10	15	2.2	0.48	0.24	0.15	1.2	0.15	3.4
PTL-008	80	30	10	12	15	2.2	0.48	0.27	0.16	1.2	0.15	3.4
PTL-010	100	30	10	16	25	3	0.64	0.32	0.25	1.6	0.2	4.6
PTL-015	150	30	10	23	25	3.8	0.68	0.35	0.25	1.6	0.2	4.6
PTL-020	200	30	15	40	40	5	0.9	0.48	0.25	2.6	0.3	11
PTL-040	400	30	15	60	60	5	0.9	0.48	0.25	2.6	0.3	11.8
PTL-060	600	30	15	90	70	8.5	2	0.92	0.45	4.5	0.5	12
PTL-100	1000	40	25	130	100	9	2.2	1	0.48	5.0	0.6	12.5
PTL-200	2000	40	25	160	100	9.8	2.6	1.1	0.51	5.0	0.6	12.5



## ▲ Dimensions and Connection(mm)

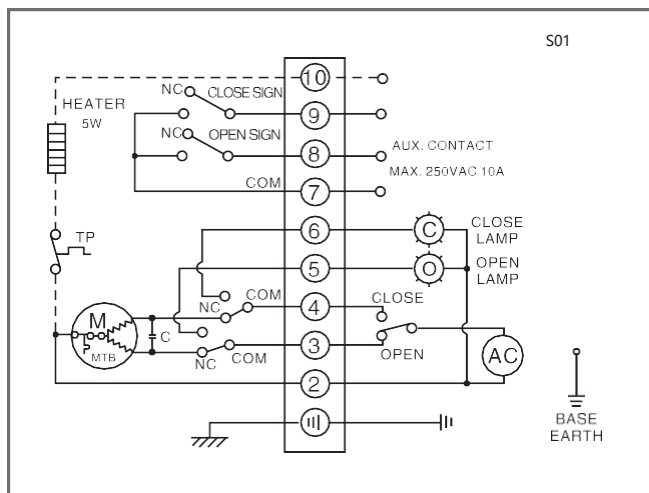
Model	A	B	C	D	E	F	G	I	J	K	O	P	O1	P1	QxH
PTL-003	74	49	45	114	53	65	114	100	50	50	50	4-M6	36	4-M5	11×18
PTL-005	89	72	45	125	57	82	114	100	66	66	70	4-M8	50	4-M6	14×20
PTL-008	89	72	45	125	57	82	114	100	66	66	70	4-M8	50	4-M6	14×20
PTL-010	109	80	45	126	67	85	114	100	100	90	70	4-M8	50	4-M6	17×23
PTL-015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

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

## Circuit Diagram

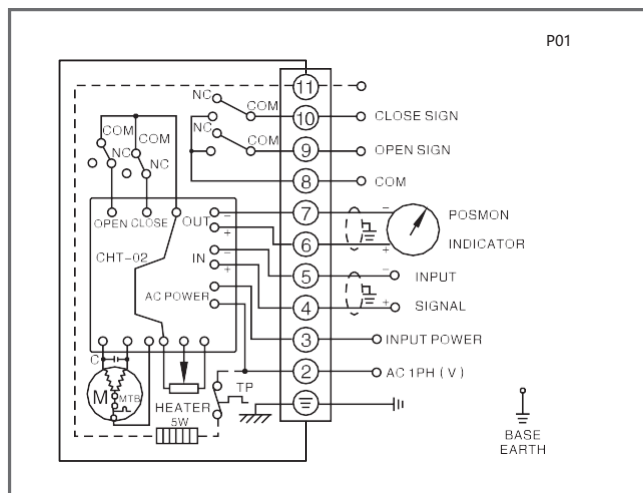
AC 220V/110V/24V

### 1. Standard on-off passive contact signal output circuitry



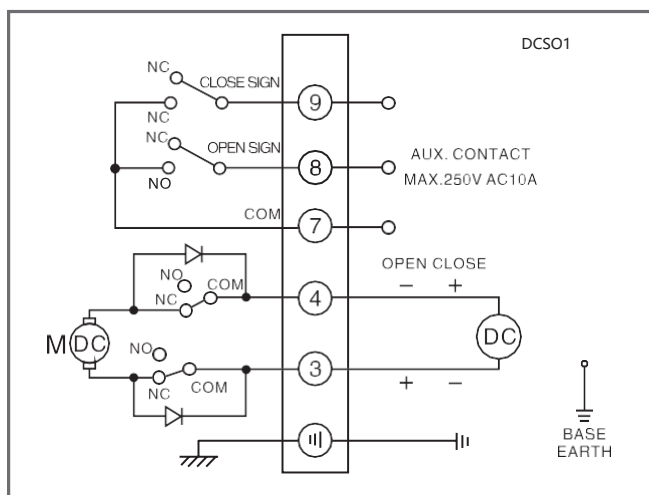
AC 220V/110V/24V

### 2. Analog quantity passive contact signal output circuitry



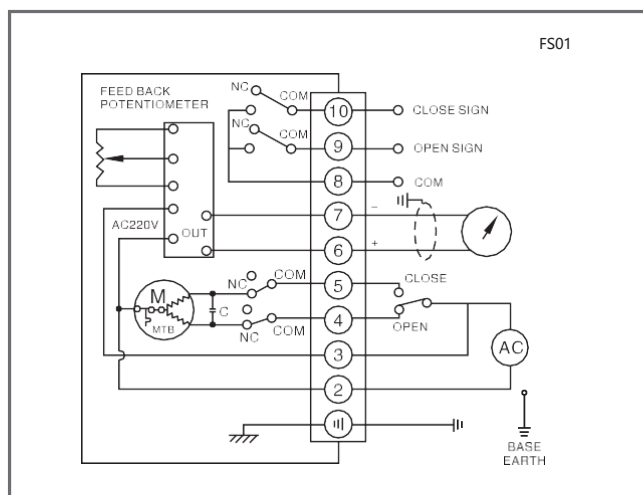
DC 24V/220V

### 3. DC standard on-off passive contact signal output circuitry

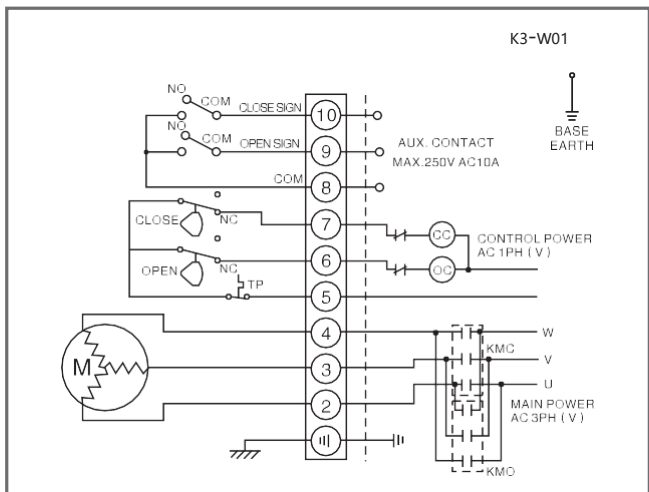


AC 220V/110V/24V

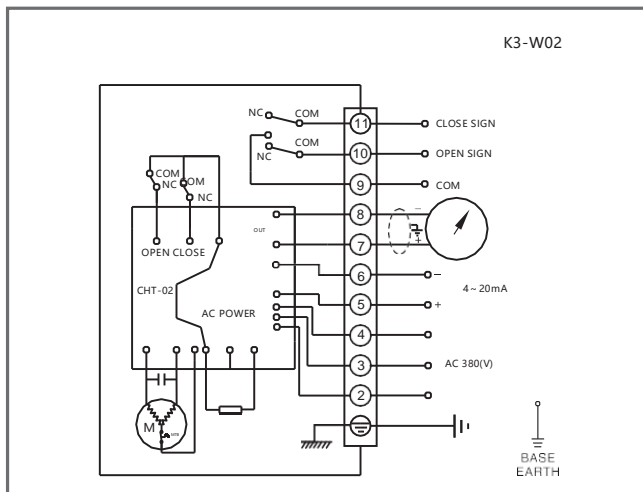
### 4. On-off input 4-20mA signal and open-closed signal output circuitry



### 5. 380/440VAC/50/60Hz, 3Ph (Outer control On-off type)



### 6. 380/440VAC/50/60Hz, 3PH (modulating type)



## Electric actuator

### Standard Technical Parameter

Actuator body	Aluminum alloy, waterproof level: IP67, NEMA4 or 6
Power Supply	24/110/220/380V AC $\pm 10\%$ , 24/110/220VDC 50/60HZ $\pm 10\%$
Motor	Squirrel-cage Asynchronous Motor
Limit Switch	2* open/close, SPDT, 250V AC, 10A
Assistant Limit Switch	2* open/close, SPDT, 250V AC, 10A
Stroke	90° - 270 $\pm$ 10° (please inform us if over 90°)
Failure Protection/Operating Temperature	Internal thermal protection. Open: 120°C $\pm$ 5°C, Close: 97°C $\pm$ 15°C
Indicator	Continuous position indicate
Manual Operation	Spanner (option: handwheel)
Self-lock Device	Self-lock by worm and worm gear
Mechanical Limit	External adjusting bolts (2 pieces)
Connecting Hole	M18 (2 pieces)
Ambient Temperature	-20°C ~ +70°C
Lubrication	Aluminum-base grease(EP type)
Material	Steel, Aluminum alloy, Aluminum bronze, Polycarbonate
Ambient Humidity	Max 90% RH
Anti-vibration	X Y Z 10g, 0.2~34HZ, 30 minutes
External Coating	Dry Powder Epoxy Polyester

