

AOX-L Electric Actuator Series

OPTION SPECIFICATION

No.	Option scheme	Remark
1	Potentiometer unit (1K-10K)	AOX-L series
2	Proportion control unit (control signal 4-20mA DC/1-5V/1-10V)	AOX-L series
3	Local control units (local control open/stop/close optional switch, local/remote switch)	AOX-L series
4	Water-proof actuator (IP68, 10M, 250HR)	AOX-L series
5	Reverse electromagnetic control and transmission of integrated motor starter	AOX-L series
6	Electric current position sensor (output 4-20mA DC)	AOX-L series
7	High temperature resistance actuator (-10°C ~ +100°C)	AOX-L series
8	Low temperature resistance actuator (-60°C ~ +30°C)	AOX-L series
9	Low speed actuator	AOX-L series
10	Bus-control unit	AOX-L series



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AOX-L Electric Actuator
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 Counterfeiting not allowed

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AOX has been dedicated to the research, design and manufacturing of actuators for more than 20 years. Adhere to strict and reliable principle, rely on rich field application experience, we provide the optimum auto-control products and solution in fluid-control application area such as pressure, flow rate and liquid level.

We have a group of passionate, continuously innovative, high-quality R & D staff to forge ahead. From initial design to the selection of material, the determination of craft, exquisite manufacturing process and rigorous test procedure ensure each product from AOX meets the most severe hazard working condition.

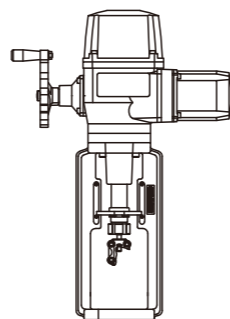
Of course, it is an endless challenge to create more and better industrial process control products.

AOX is brave and strong enough to face this challenge.

We are sure to achieve this aim. OK! AOX

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Production Strength

The basis of market competition is inseparable from the production strength, solid financial strength and advanced, perfect hardware. Knowing the importance of hardware, AOX firstly introduced the advanced equipment from abroad in the same industry. We invested tens of millions to renew the hardware, manufacture international standard superior electric actuators and electric valves with international product facilities.



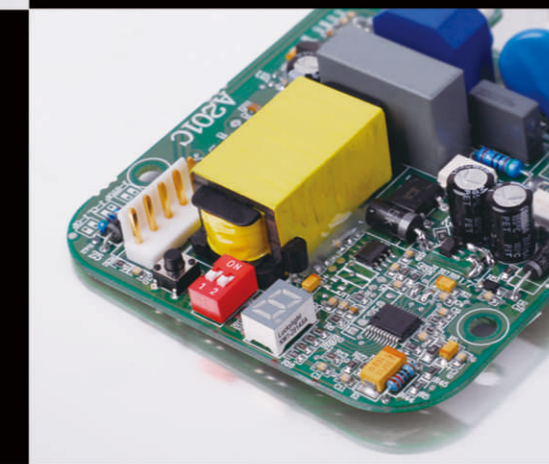


AOXIANG
ELECTRIC INTELLIGENT ACTUATOR
ELECTRIC VALVES

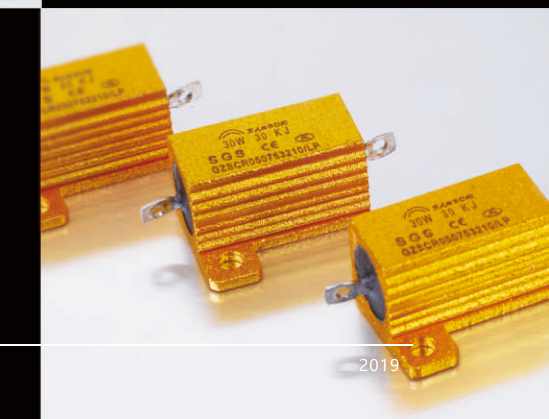
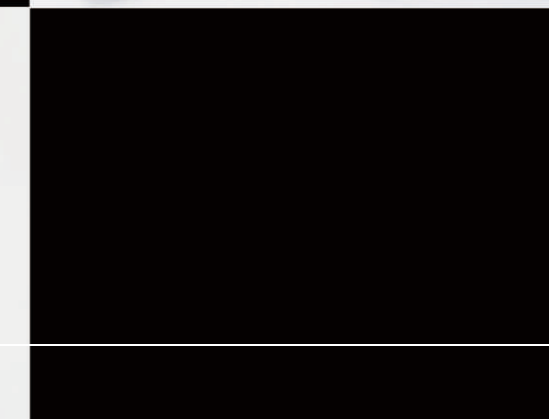
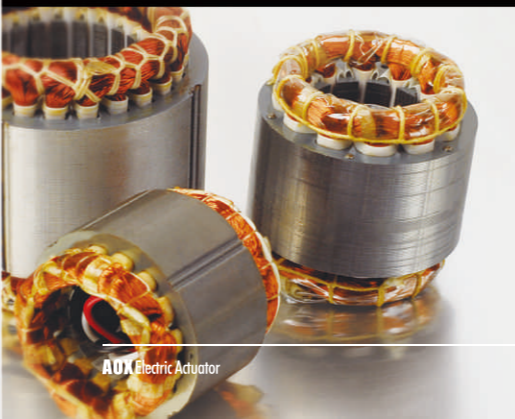
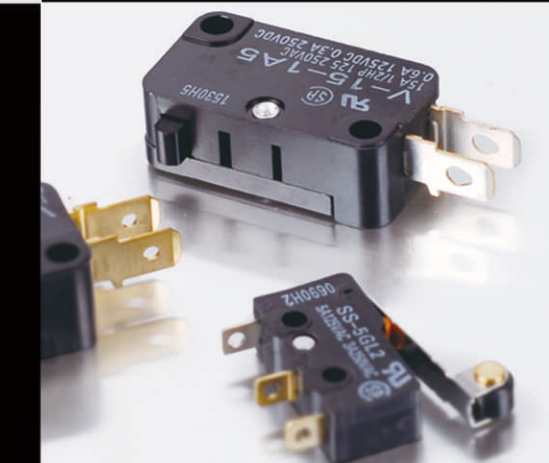


Applications

Our products are used in many fields, petroleum, chemicals, machinery, metallurgy, water treatment, pharmaceutical, marine, HVAC, machinery, etc.



>>> the internationally first-class parts are used to ensure the highly efficient and reliable operation under the most severe working conditions



Valve position detecting mechanism

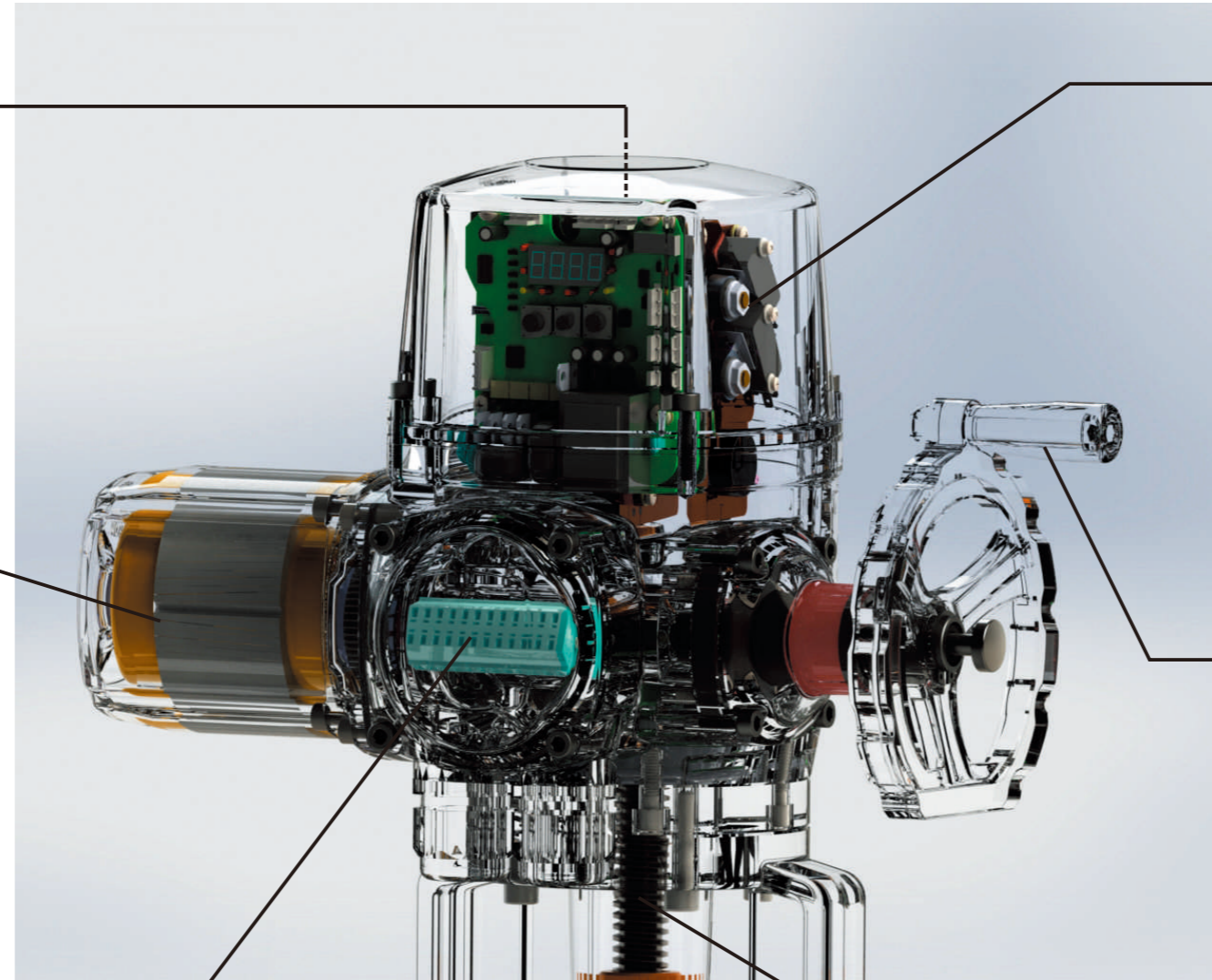
– Through direct connection of rack on the output shaft and two sets of gears control mechanism to detect real-time valve position and fully open fully closed position independently. It will maximum improve the accuracy and security.

Motor

– Fully enclosed squirrel-cage motor, small size, large torque, small inertia force, insulation class F, built-in thermal protection switch to prevent damage to the motor, the power supply voltage and operating formats optional.

Terminal block

– Installed in a separate wiring chamber, using the spring self-type terminal ensure robust and reliable.



Cam and limit switch

– Tightened with two specific nuts above, each cam can be set separately, once the setup is complete, each cam will always remain in this position.

Manual operation

– With hand, automatic clutch function. The valve can be operated manually in case of power failure. Automatic discharge hand wheel meshing capabilities to ensure the safety of personnel at the moment of motor rates.

Valve connection

– Through different bracket connection, it can be suitable for different valves. Using stainless steel scale ruler and stainless steel slider.

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Structural characteristics of electric actuator



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ELECTRIC VALVES



SUMMARY

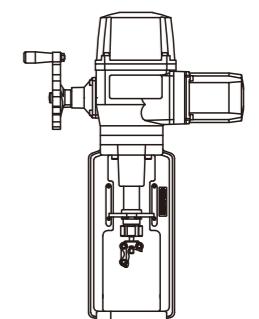
"AOX-L" series electric actuator is a new generation of linear actuator, we have done a lot of innovation, with three patents and a number of appearance and utility model patents. It uses modular design, with rich scalability features for a variety of valves and similar products. Such as gate valves, globe valves, control valves, etc., it can be widely used in petroleum, chemical, water treatment, shipbuilding, paper, power plants, heating, building automation and other industries. It uses 380V / 220V / 110V AC power supply for the drive power, using switch value, analog or digital as control signal, move the valve to the desired position and achieving its automation. "AOX-L" series has thrust selection range, its thrust value from 3000-30000NM, also it can match the corresponding valve through different bracket .

PERFORMANCE FEATURES

1. Shell--The shell is made of aluminum alloy, with anodized and polyester powder coating. It is strong corrosion-resistant and enclosure IP67, NEMA 4 and 6, IP68 is optional.
2. Motor--Fully enclosed squirrel-cage motor, small size, large torque, small inertia force, insulation class F, built-in thermal protection switch to prevent damage to the motor.
3. Manual Structure--The design of handwheel is safe, reliable, labor-saving, small. In case of power failure, by pressing the red button in the middle of the handwheel to disconnect actuator and motor, and turn to manual operation. Because the self-locking worm gear between the motor and the operating shaft are separated, even if the actuator at the maximum torque value is also very easy to turn to manual operation. After starting the motor, automatically out of manual operation. The hand wheel does not work when the motor is operated.
4. Scale table-- The scale table is installed on the guide rod, which is more intuitive and convenient to observe.
5. Space heater-- It is Used to control temperature to prevent moisture condensation in the actuator due to temperature and weather changes, and keep the internal electrical components dry.
6. Limit switch-- Electronic double limit. The stroke is adjustable, safe and reliable; electronic limit switch is controlled by the cam mechanism, the simple adjustment mechanism can accurately and easily set position.
7. Self-locking-- Precision screw-and-nut mechanism can efficiently transfer large torque, high efficiency, low noise (maximum 50db), long life and self-locking function to prevent the inversion, transmission part is stable and reliable, no need to refuel.
8. Anti-off bolt-- The bolt attaches to the shell and can not fall off when remove the shell.
9. Installation-- Bottom mounting dimensions conform to ISO5211 international standards, if the installation does not match the size of the valve, it can be designed.
10. Circuit-- Control lines meet the standard of single-phase or three-phase power supply, reasonably compact line layout, wiring terminals can effectively satisfy a variety of additional functions requirements. (It can be processed according to customer requirements .).
11. Intelligent module-- Using highly integrated, low-power microcontroller and analog circuit mixed control panel, using all-metal plug-in installation, it can effectively isolate the actuator motor heat and control board, greatly improve the software and hardware anti-jamming performance and temperature resistance.
12. The display of valve position-- During the opening or closing movement of actuator, the change of valve position is real-time display on the LCD screen with large numbers.

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PERFORMANCE PARAMETER

Model	Thrust	Speed	Max stroke	Power	Rated Current (A)	Weight
	N	mm/s	mm	W	220V/50HZ/1PH	Wg
AOX-L-30	3000	1.5	25	30	0.31	17.5
AOX-L-50	5000	1.5	40	45	0.42	19
AOX-L-80	8000	1.5	60	60	0.62	19.5
AOX-L-100	10000	1.5	100	60	0.68	33
AOX-L-160	16000	1.5	100	90	0.85	33
AOX-L-200	20000	1.5	100	90	0.87	33
AOX-L-250	25000	1.5	100	120	1.22	33
AOX-L-300	30000	1.5	100	120	1.28	33

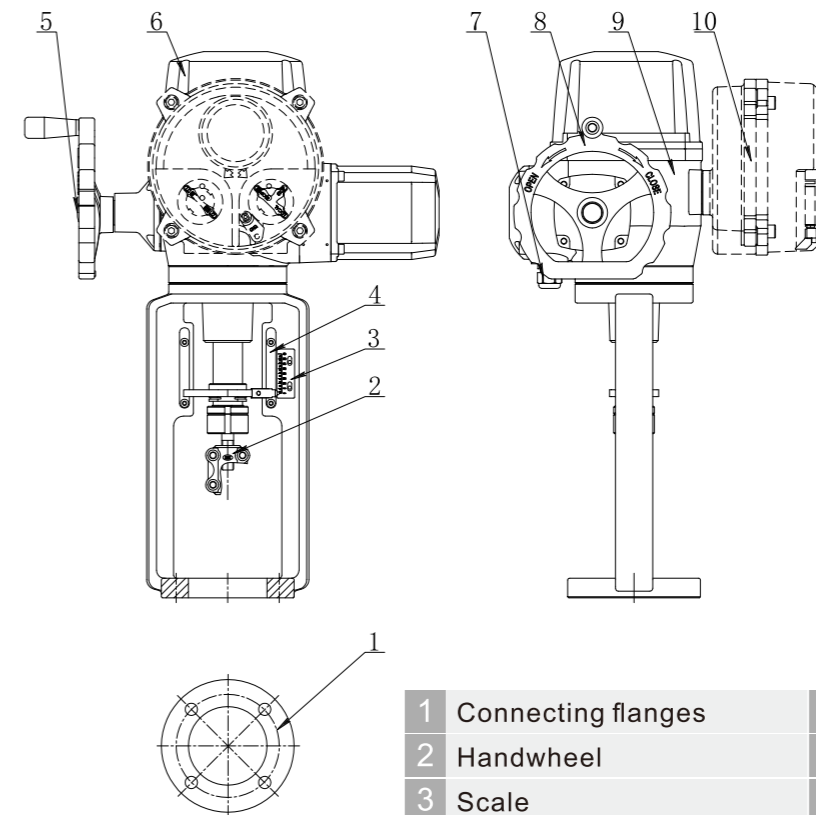
STANDARD TECHNICAL PARAMETER

Shell	Enclosure :IP67,IP68 is optional,NEMA4, NEM A6	
Power	Standard:110/220V AC 1Phase Optional:80/440V AC 3 Phase	
Motor	Asynchronous motor	
Limit switch	2×Open/ Close, SPDT,250VAC 10A	
Auxiliary limit switch	2×Open/ Close, SPDT,250VAC 10A	
Fail safe/ Operating temperature	Internal-placed thermal protection, Open 120°C ± 5°C/Close 97°C ± 5°C	
Indicator	Continuous position indicator	
Manual operate	Declutching mechanism, operate by handwheel	
Self-locking device	Self-locking by worm and worm gear	
Space heater	30W(110V/220VAC)	
Conduit entry	2 × M18*1.5	
Ambient temperature	-25°C ~ +70°C (-30°C、-40°C、-60°C optional)	
Lubrication	Grease moly (EP type)	
Material	Steel, Aluminum alloy, Aluminum bronze, Polycarbonate	
Ambient humidity	Max 90% RH	Non-Condensing
Anti-vibration	X Y Z 10g,0.2 ~ 34 Hz,30 minutes	
External coating	Dry powder, Epoxy polyester,high anti-corrosion	

AOX-L Electric Actuator Series

OUTLINE DRAWING

AOX-L Configuration



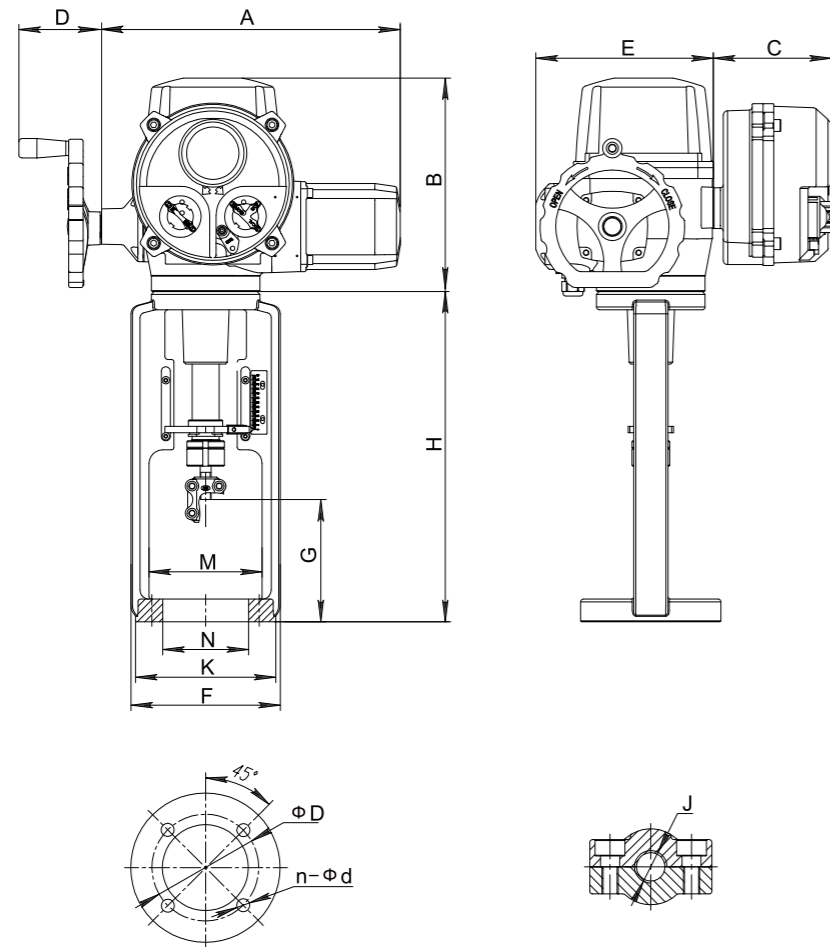
1	Connecting flanges	6	Cover
2	Handwheel	7	Cable gland
3	Scale	8	Handwheel
4	Guide	9	Shell
5	Manual/ Auto switch button	10	Control unit

PERFORMANCE PARAMETER

No.	Performance	Parameter
1	Motor power control	Thyristor commutate relay unit
2	Motor load type	S2-30min (on/off model), S4-25% (Modulating model)
3	Control signal	Input and output 4-20mADC, 1-5VDC, 0-10VDC
4	Sensitivity (dead zone)	0.3% ~ 2.5%
5	Input / output impedance	150 Ω、750 Ω
6	Set alarm signal	The phase error or loss, motor overheating protection tripping (overheat protection switch)
7	Field control	Select switch scene - stop - remote, knob: open - off, screen

AOX-L Electric Actuator Series

GENERAL DRAWING



Unit:mm

Model	A	B	C	D	E	F	G	H	K	M	N	T	β	ϕD	n- ϕd	J
AOX-L-30	307	236	131	91	196	165	90	255	$\phi 100/\phi 125$	90	$\phi 60$	20	0°	$\phi 80$	2- $\phi 10$	M14MAX ro M24MAX
AOX-L-50	330	236	131	91	196	165	130	320	$\phi 135/\phi 155$	110	$\phi 80$	20	45°	$\phi 105$	4- $\phi 12.5$	M14MAX ro M24MAX
AOX-L-80	330	236	131	91	196	165	135	365	$\phi 155$	125	$\phi 95$	25	45°	$\phi 118$	4- $\phi 14.5$	M14MAX ro M24MAX
AOX-L-100	369	295	131	91	230	195	165	490	/	132	$\phi 100$	22	45°	$\phi 130$	4- $\phi 18$	M24MAX
AOX-L-160	369	295	131	91	230	195	165	490	/	132	$\phi 100$	22	45°	$\phi 130$	4- $\phi 18$	M24MAX
AOX-L-200	369	295	131	91	230	195	165	490	/	132	$\phi 100$	22	45°	$\phi 130$	4- $\phi 18$	M24MAX
AOX-L-250	369	295	131	91	230	195	165	490	/	132	$\phi 100$	22	45°	$\phi 130$	4- $\phi 18$	M24MAX
AOX-L-300	369	295	131	91	230	195	165	490	/	132	$\phi 100$	22	45°	$\phi 130$	4- $\phi 18$	M24MAX

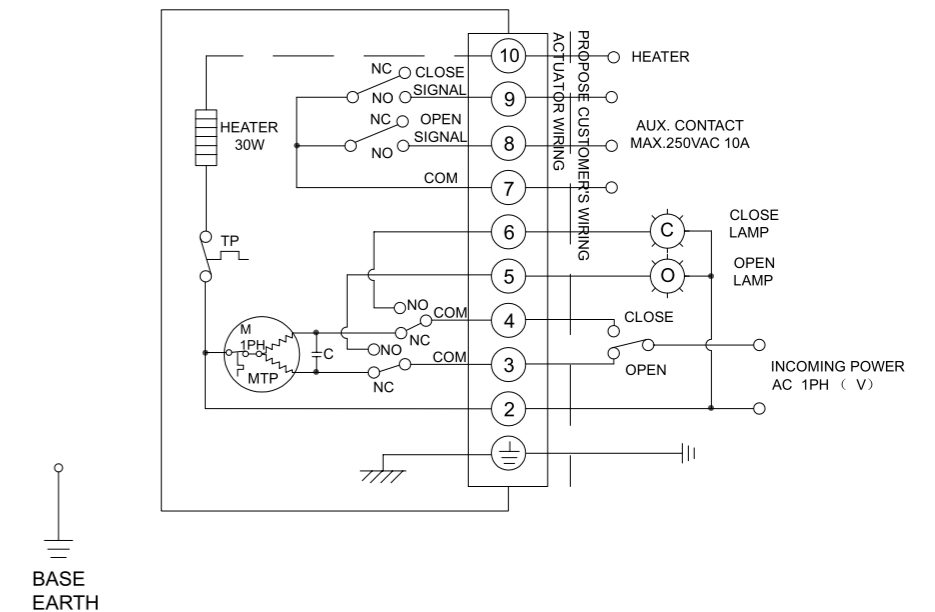
AOX-L Electric Actuator Series

Wiring Diagram



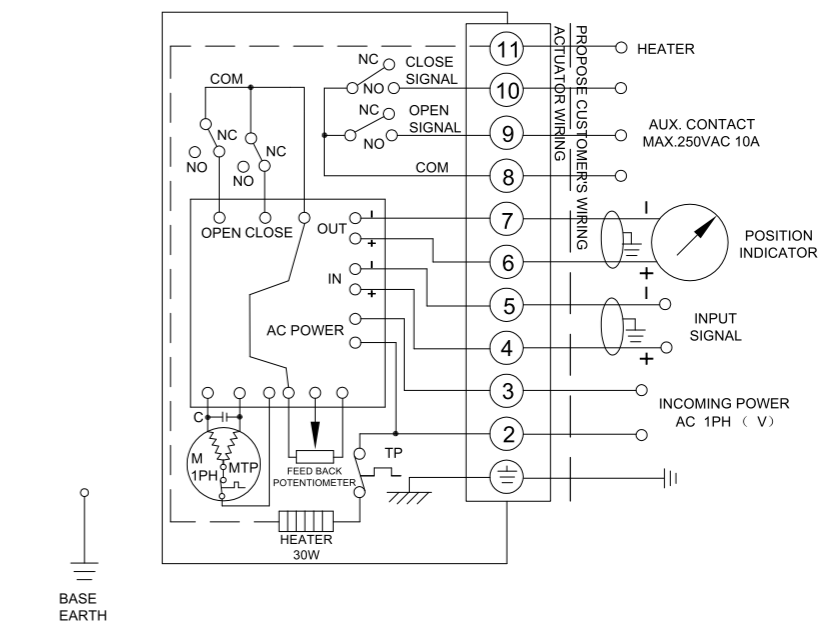
1. AOX-L-30~300 110/220VAC/50/60Hz, 1Ph(On/off type)

L-110



2. AOX-L-30~300 110/220VAC/50/60Hz, 1Ph(Modulating type)

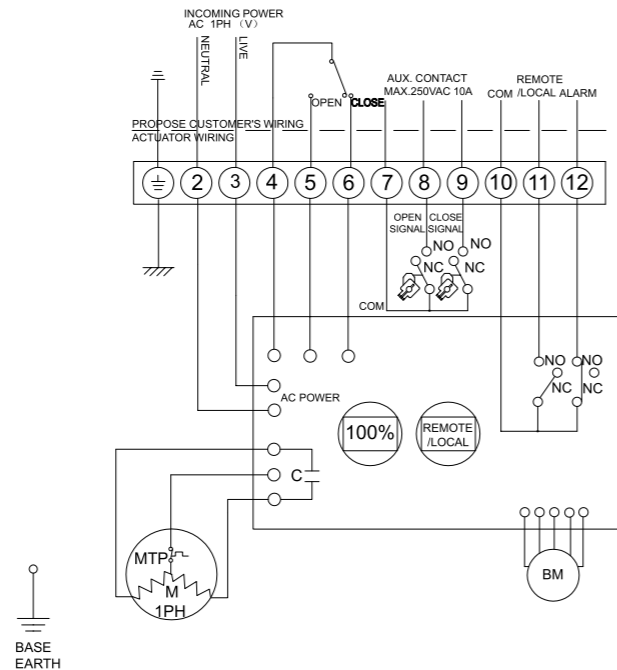
L-120



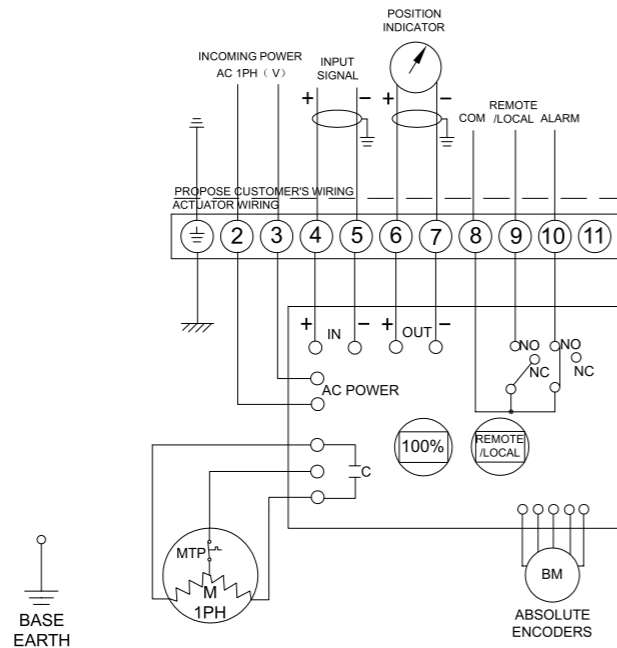
AOX-L Electric Actuator Series

Wiring Diagram

3. AOX-L-30~300 110/220VAC/50/60Hz, 1Ph (Intelligent on/off type) L-130



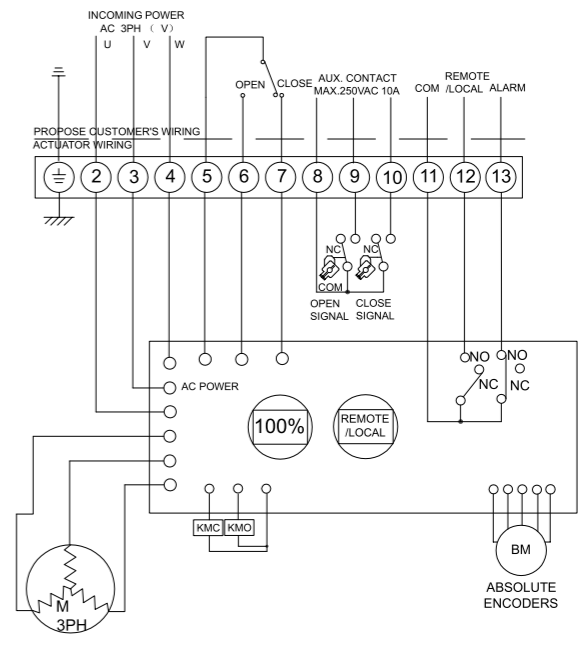
4. AOX-L-30~300 110/220VAC/50/60Hz, 1Ph (Intelligent control type) L-140



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Wiring Diagram

5. AOX-L-30~300 380/440VAC/50/60Hz, 3Ph (Intelligent on/off type) L-230



6. AOX-L-30~300 380/440VAC/50/60Hz, 3Ph (Intelligent control type) L-240

