

J&O FLUID CONTROL CO., LIMITED

Electric Actuator





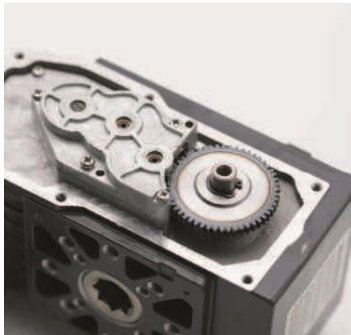
Protection grade: IP67

Improve the uneven structure of the upper and lower cover to make the sealing surface is more reliable .



Lens Design

The indicator is installed on the central axis to observe the valve position. The convex lens design is adopted to better observe the switch position in any part.



The transmission is more reasonable and reliable.

1, The gear box body is all made of zinc alloy, which is harder than aluminum alloy to prevent wear and cracking of the gear box body. The positioning pin is used to fix the gear box to make the gear box more accurate and stable.

2 The gears are all made of 40 # chrome steel after secondary heat treatment to make them wear-resistant, more fatigue-resistant, solid and reliable.



Faster and more convenient debugging

By improving the electrical cam structure, we integrated the four cams into two and separated them with disc springs. The top was compressed with locknuts, which improved the inaccurate positioning of M3 screws by other manufacturers and the difficulty of finding M3 wrenches on the sliding wire site. Disadvantages and can always maintain the stability of the limit in the ultra-high and low temperature environment



Novel appearance

It's more advanced to avoid cookie-cutter. The shape has a unique selling point.



Modulating type is more stable and reliable

The size of the module is enlarged, the selection range of components is larger, and the power is higher; the use of weak current control power will not affect the quality of the module due to unstable field voltage; the use of bare board heat dissipation is better; fool type-key positioning, avoid Due to too many buttons and disordered debugging, the user adopts smart module plug-in installation to solve the contradiction that the maximum temperature of the actuator is 120°, while the use temperature of the module's electronic components is only 65°



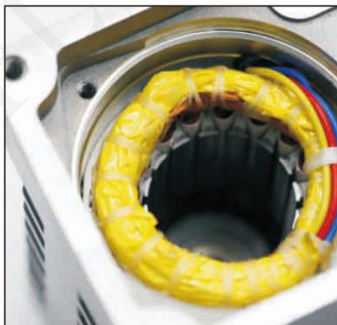
The handle is not easy to lose during manual operation

Place the handle clamp on the mechanical limit bolt to make the hex wrench not easy to lose when operating.



More convenient and reliable to assemble with valve

The connection method with the pneumatic actuator is consistent, which is more conducive to the standard integration, and the valve inventory is more effectively reduced, and the valve stem is directly inserted into the worm gear inside the actuator, so that the force arm of the valve and the output shaft is shorter and the output is more stable.



Lower motor temperature rise

By increasing the size of the motor, under the same power, the capacitor capacity is reduced, the starting current is reduced, and the degree of heat generation is reduced

Performance characteristics

- **Shell:** The shell is made of hard aluminum alloy, with anodized treatment and poly-american powder coating, with strong corrosion resistance and protection class IP67.
- **Motor:** Fully enclosed squirrel cage motor, small size, large torque, low inertia, insulation class F, built-in overheating protection switch, can prevent overheating and damaging the motor.
- **Manual structure:** The design of the handle ensures safety, reliability, labor saving, and small size. When the power is off, the handle can be manually operated, and when not manually, the wrench is placed in the wrench clamp for easy use.
- **Indicator:** The indicator is installed on the central axis, and the valve position can be observed. Convex lens design is used to better observe the switch position in any part.
- **Dryer:** It is used to control the temperature, prevent moisture condensation inside the actuator due to temperature and weather changes, and keep the internal electrical components dry.
- **Seal:** Good sealing, the standard product protection grade is IP67
- **Limit switch:** Mechanical and electrical double limit, mechanical limit screw adjustable, safe and reliable; electrical limit switch is controlled by cam mechanism, simple adjustment mechanism can set position accurately and conveniently, and is not affected by excessive handwheel.
- **Self-locking:** The precision worm gear mechanism can efficiently transmit large torque, low noise (maximum 50 decibels), long life, self-locking function to prevent reverse rotation, the transmission part is stable and reliable, and no need to refuel.
- **Anti-drop bolt:** When removing the shell, the bolts are attached to the shell and will not fall off.
- **Install:** The bottom installation size conforms to the 1S05211/DIN3337 international standard, and the holes are double quadrangular, which is convenient for linear or 45° angle installation of valves with square rods, and has

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strong adaptability. It can be installed vertically or horizontally.

- **Route:** The control circuit conforms to the single-phase or three-phase power supply standard, the circuit layout is compact and reasonable, and the wiring terminals can effectively meet the requirements of various additional functions.

Technical parameters of standard parts

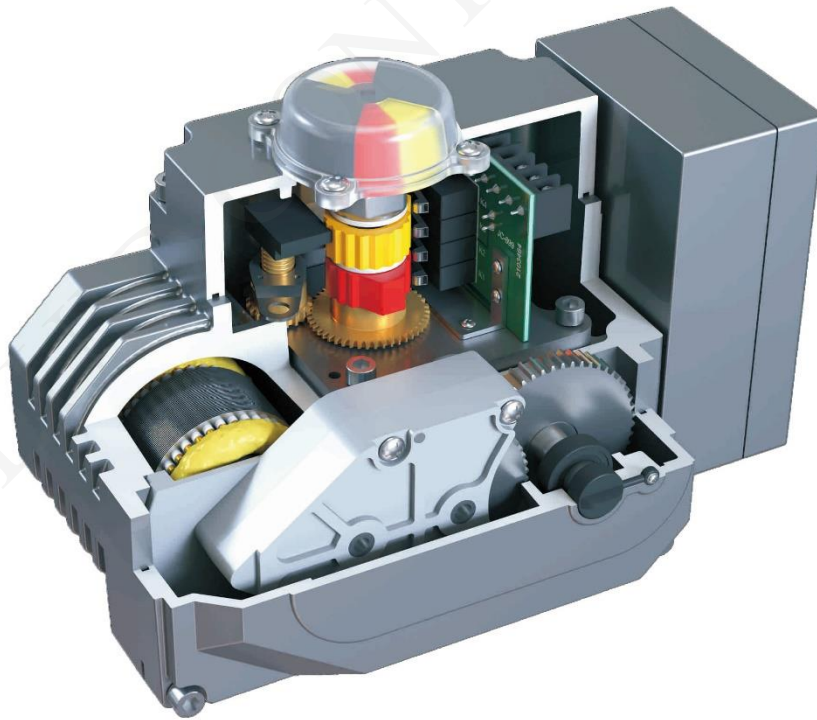
Shell	Ingress Protection Rating IP67
Motor power	110/220V AC single-phase, 380/440V AC 3-phase, 50/60HZ, $\pm 10\%$
Control power	110/220V AC single-phase, 50/60Hz, $\pm 10\%$
Control signal	Input/output 4-20mA
Motor	Squirrel cage asynchronous motor
Limit switch	2X(Open)/ (Close)SPDT, 250V AC 10A
Auxiliary limit switch	2X(Open)/ (Close)SPDT, 250V AC 10A
Stroke	$90^{\circ} \pm 10^{\circ}$ (180°/270° option)
Failsafe/operating temperature	Built-in overheat protection, open $120^{\circ}\text{C} \pm 5^{\circ}\text{C}$ /close $97^{\circ}\text{C} \pm 5^{\circ}\text{C}$
Indicator	Continuous position indication
Manual operation	Mechanical handle
Self-locking device	Worm gear and worm mechanism provide self-locking
Mechanical limit	2 external adjustment bolts
Dryer	7-10W (110/220V AC) anti-condensation
Wiring hole	2PCS M18
Ambient temperature	$-30^{\circ}\text{C} \sim +70^{\circ}\text{C}$
lubricating	Aluminum-based lubricating shield (EP type)

Technical parameters

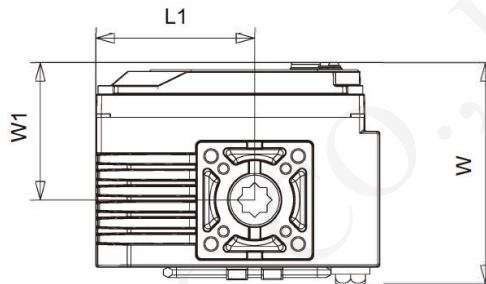
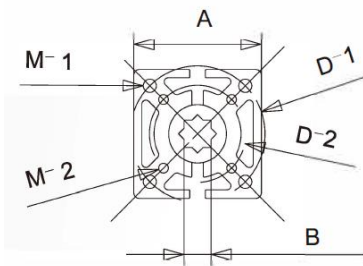
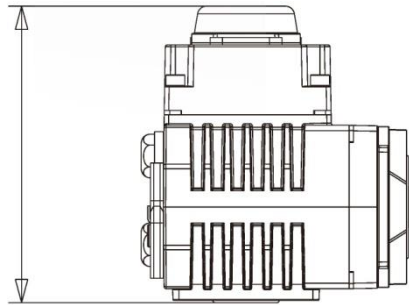
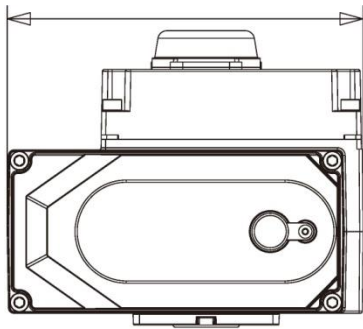
Model	Output Torque (N/M)	Action time (90°s)	Output shaft (mm)				Motor (W)	Rated current 220V(A) 50Hz	ON/OFF Type Weight (KG)	Modulating Type Weight (KG)	Intelligent type Weight (KG)
			Square	Depth	Round	Depth					
JO-05	50	28	14x14	24	Φ12.6	26	14	0.144	35	4.1	4.3
JO-10	100	28	17x17	27	Φ18.95	28	23	0.280	4.7	5.3	5.5
JO-15	150	28	17x17	27	Φ18.95	28	30	0.320	4.9	5.5	5.7
JO-20	200	28	22x22	26	Φ22.13	45	63	0.489	8.5	9.2	9.5
JO-40	400	28	22x22	26	Φ28.48	45	80	0.600	8.8	9.5	9.8
JO-60	600	28	22x22	26	Φ31.65	45	95	0.746	9.1	9.8	10.1
JO-100	1000	28	27x27	40	Φ31.65	45	120	0.800	11.6	12.3	12.6
JO-200	2000	45	27x27	40	Φ31.65	45	130	0.940	11.9	12.6	12.9
JO-260	2600	60	27x27	40	Φ33.3	45	151	1.300	12.1	12.8	13.1

Optional valve comparison reference table

Serial number	ON/OFF TYPE	Modulating Type	Intelligent Type	Optional valve model comparison reference table (reference pressure ≤16Mpa)		
	220V/ 380V	220V/ 380V	220V/ 380V	Soft seal ball valve	Soft seal butterfly valve	Ventilation butterfly valve
1	JO-05	JO-05	JO-05	DN15-32	DN25-80	DN50-80
2	JO-10	JO-10	JO-10	DN40-50	DN100-125	DN100-200
3	JO-15	JO-15	JO-15	DN65	DN125-150	DN200-250
4	JO-20	JO-20	JO-20	DN65-80	DN150-200	DN250-300
5	JO-40	JO-40	JO-40	DN50-100	DN200-250	DN350-400
6	JO-60	JO-60	JO-60	DN100-125	DN250-300	DN500-600
7	JO-100	JO-100	JO-100	DN125-150	DN300-350	DN600-800
8	JO-200	JO-200	JO-200	DN150-200	DN350-400	DN800-1000
9	JO-260	JO-260	JO-260	DN200-250	DN500-600	DN1000-1200

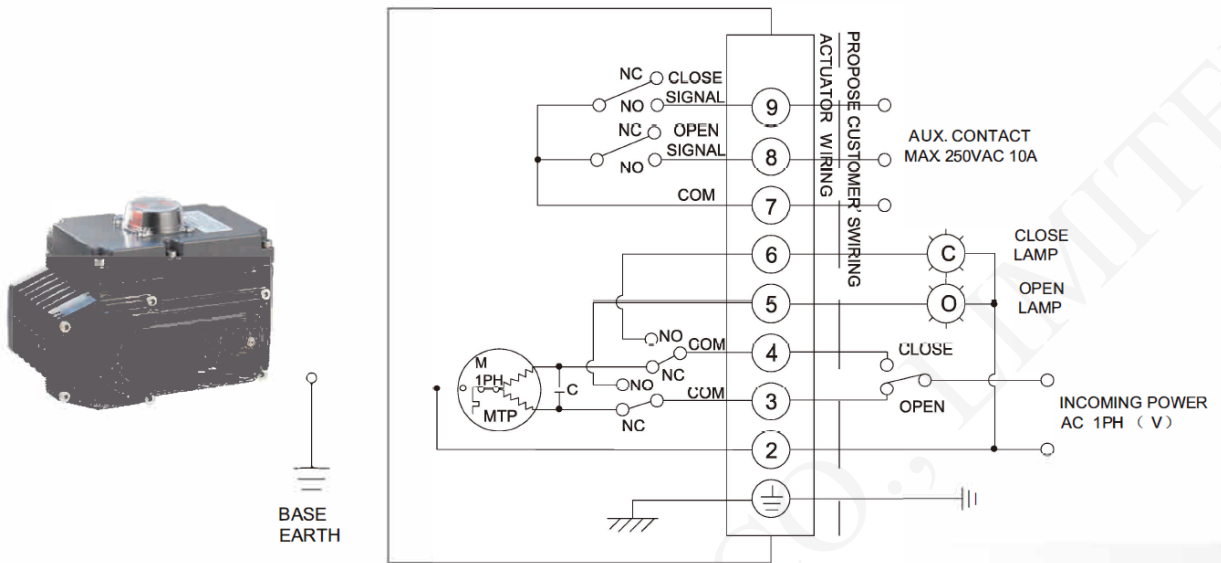


Drawings:



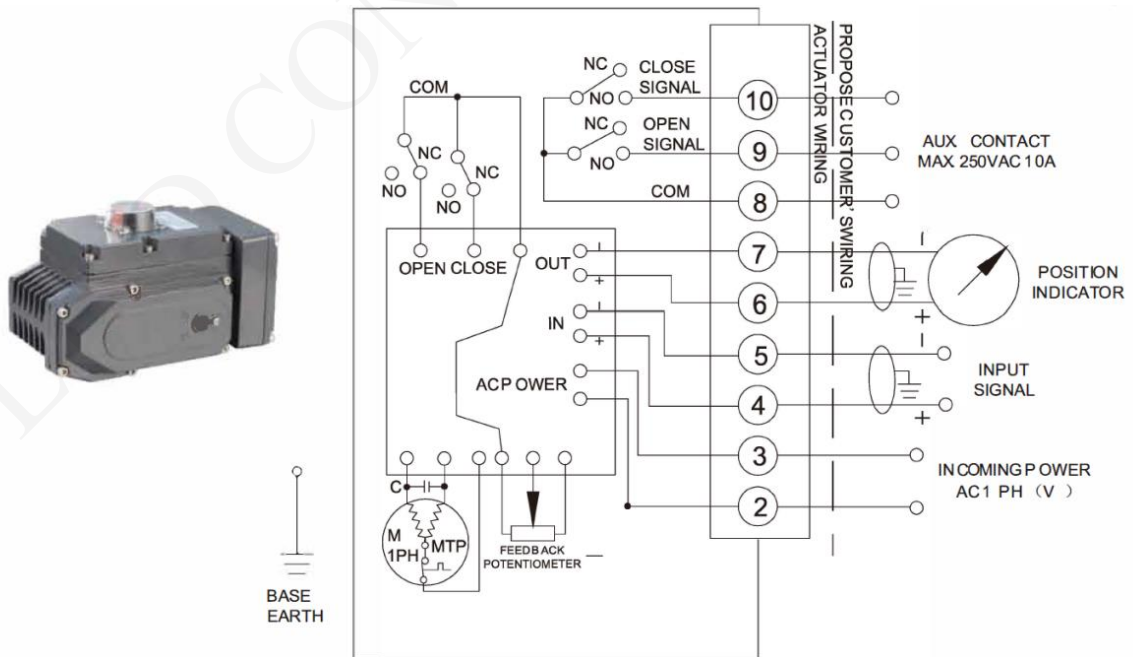
MODEL	L	w	H	A	Bx Depth	D1	D2	M 1	M2	L1	W1
JO-05	161	138	134	66x66	14x14x24	F07 Φ70	F05 Φ50	4-M8 Depth17	4-M6 Depth 13	90	75
JO-10	190	155	140	100x88	17x17x27	F07 Φ70	F05 Φ50	4-M8 Depth 12	4-M6 Depth 12	106	80
JO-15	190	155	140	100x88	17x17x27	F07 Φ70	F05 Φ50	4-M8 Depth 12	4-M6 Depth 12	106	80
JO-20	242	185	175	108x108	22x22x26	F10 Φ102	F07 Φ70	4-M10 Depth 20	4-M8 Depth 17	139	105
JO-40	242	185	175	108x108	22x22x26	F10 Φ102	F07 Φ70	4-M10 Depth 20	4-M8 Depth 17	139	105
JO-60	242	185	175	108x108	22x22x26	F10 Φ102	F07 Φ70	4-M10 Depth 20	4- M8 Depth 17	139	105
JO-100	270	204	185	140x130	27x27x40	F12 Φ125	F10 Φ102	4- M12 Depth 20	4-M10 Depth 20	153	110
JO-200	270	204	185	140x130	27x27x40	F12 Φ125	F10 Φ102	4-M12 Depth 20	4-M10 Depth 20	153	110
JO-260	270	204	185	140x130	27x27x40	F12 Φ125	F10 Φ102	4-M12 Depth 20	4-M10 Depth 20	153	110

JO-05-260, AC110V /220V /50/60Hz, ON/OFF TYPE (STANDARD TYPE)

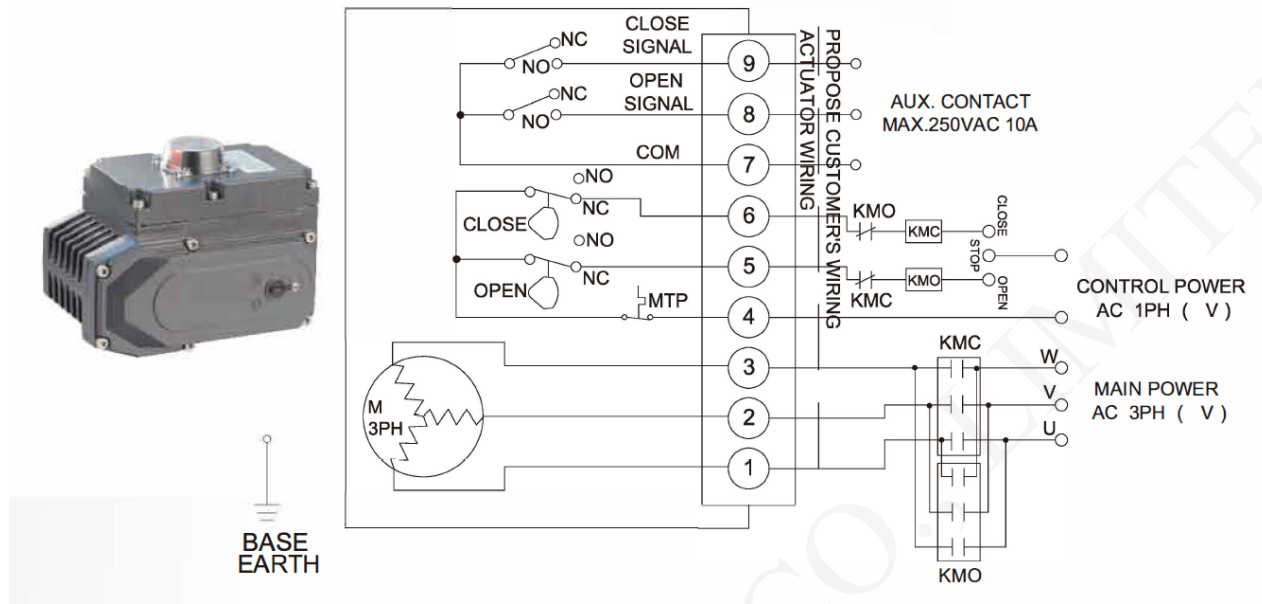


JO-05-260, AC110V /220V /50/60Hz,

Modulating type, Intelligent Type



JO-05-260, AC380V/440V/50/60Hz, ON/OFF TYPE, (STANDARD TYPE)



JO-05~260, DC12V/24V, ON/OFF TYPE, (STANDARD MODEL)

