

## Ordering information

HL1 - 05 S ( a L - F07 / F05 - M14 - IP68 )

- IP Glass (No mark under IP68 )
- Flange:F07、 F05 , valve stem:14×14
- Color : RAL7035(grey)
- Power supply : AC220V 1PH
- Function : On off type
- Output torque : 50N.m ( number×10N.m )
- HL1、 HL2、 HL3、 HL4 series

## Function : Control and feedback type

- S** : On off type
- AU** : Modulating type(0-10V)
- AU2** : Modulating type(2-10V)
- AI** : Modulating type(4-20mA)
- SR** : On off type+potentiometer



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**QUARTER TURN ACTUATOR**



**HL Series**  
Quarter-Turn Electric Actuator





A circular logo with the letters 'H', 'L', 'I', and 'E' arranged around a central point, forming a stylized 'HL' shape.

Provider of  
**control valve**  
system  
solutions

## HL SERIES Quarter Turn Actuator

### Product Overview

The HL Series electric actuators are compact , excellent weather resistance and shock resistance. When the actuator is powered off, the self-locking transmission mechanism ensures that the valve position unchanged, with electrical and mechanical double limits to prevent overdrive. Removable drive adapter sleeve, ISO5211 standard flange, suitable for butterfly valve, ball valve, plug valve and other valves, and suitable for various working conditions and voltage levels.

### Product Features

- Torque:50NM-6000NM
- Seperate wiring space,avoid misoperating
- Mini size,easy to install
- 90 degrees,quick opening and closing,adjusting well
- Simple mechanical structure,self locking,high driving accuracy
- Various control and feedback signal can be choosen
- IP67 ( optional IP68 )
- Heater space as standard,prevent condensation
- Modular design for easy disassembly and maintenance

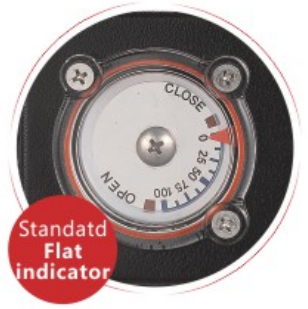
## Company Profile

Established in 2003Y, Wenzhou Heli Automatic Meter Co.,Ltd. is a high-tech enterprise special in developing and manufacturing control valve, electric actuator,pneumatic actuator,damper actuator,electric valve,pneumatic valve. Our products are widely used in Oil&Gas, HVAC, Marine, Mining, Pulp& Paper, Food&Beverage, Power, Water& wastewater, Pharmaceutical and Chemical industries around the world..Products have obtained a series of certificates from DNV, EAC, CE, ROHS, SIL, ATEX, CNEX, 3C, IP67, IP68.

We insist on " Quality-driven, Technical innovator, Honest service" , providing the best valve &actuator solutions.



**External Product Structure**



Standard Flat indicator



Optional 3D indicator

**2 Indicator**  
Flat as standard,  
3D as optional



On off type



Modulating type

**3 Wiring cavity**



On off type



Modulating type

**1 Internal cavity**

**5 Manual operation**  
Handle asstandard,  
handwheel foroptional



Standard Handle



Optional Handwheel

**4 IP67 cable gland**  
On off type:1-M20\*1.5,  
Modulating type:2-M20\*1.5



On off type



Modulating type

**6 Flange:ISO5211**



**7 Radiation fin**







### Basic Specification

<b>Torque</b>	50-6000NM ( Directly type )
<b>Power supply</b>	AC24V/220V/380V...(±10%) DC12V/24V/48V...(10%)
<b>Frequency</b>	50/60Hz ( ±5% )
<b>Rotary angle</b>	0-90° ( ±1% )
<b>Stroke/auxiliary switc</b>	2xSPDT, 250VAC 5A
<b>Calbe gland</b>	On off type: 1-M20x1.5 Modulating type/Intelligent type: 2-M20x1.5
<b>Flange</b>	ISO5211
<b>Indicator</b>	Flat for standard, 3D as optional
<b>Manual</b>	Handle(hand wheel as optional )
<b>IP grade</b>	IP67 ( Optional IP68, 15M-72Hour )
<b>Ambient temperature</b>	Temperature: -25°C~70°C ( Optional: -40°C~65°C ) Humidity: 30%~95%
<b>Anti-condensation</b>	Space heater
<b>Overheat protection</b>	Motor overheat protection, starting temperature: 125°C ( ±5% )
<b>Power failure state</b>	Last position
<b>Signal failure state</b>	4-20mA/2-10V full open/close (factory defaults is signal failure for last position) 0-10V: full close
<b>Duty cycle</b>	S4-40%
<b>Overtorque</b>	Optional
<b>Shock resistance</b>	X Y Z 10g, 0.2~34Hz, 30 Min
<b>Motor</b>	Squirrel cage induction motor, class F
<b>Noisy</b>	≤60dB ( A ) -1M

### Mechanical Parameters

Model	Toque ( NM )	Adapter ( MM )	Flange ISO5211	On off type Weight ( KG )	Modulating type Weight ( KG )	Intelligent type Weight ( KG )
HL1-05	50	14*14	F03/F05/F07	3	3	6.5
HL2-10	100	17*17	F05/F07	4.5	4.5	8
HL2-15	150	17*17	F05/F07	4.5	4.5	8
HL3-25	250	22*22	F07/F10/F12	9.8	10	12.3
HL3-40	400	22*22	F07/F10/F12	9.8	10	12.3
HL3-60	600	27*27	F07/F10/F12	9.8	10	12.3
HL4-100	1000	27*27	F12 or F10/F14	14.5	14.7	18
HL4-160	1600	36*36	F12 or F10/F14	14.5	14.7	18
HL4-200	2000	36*36	F12 or F10/F14	14.5	14.7	18
HL5-250	2500	36*36	F14 or F12 or F16	24.9	25.1	28.4
HL5-300	3000	36*36	F14 or F12 or F16	24.9	25.1	28.4
HL6-400	4000	46*46	F16 or F25	43.5	43.7	47
HL6-600	6000	46*46	F16 or F25	57.1	57.3	60.6

### Electrical Performance Parameters

#### 1PH

Model	Torque ( NM )	Time ( SEC/0-90° )	Motor power ( W )	110VAC Current ( A )		220VAC Current ( A )	
				Running	Blocking	Running	Blocking
HL1-05	50	30	10	0.45	0.67	0.24	0.31
HL2-10	100	20	30	0.65	0.96	0.35	0.45
HL2-15	150	30	30	0.65	0.96	0.35	0.45
HL3-25	250	30	40	0.72	1.41	0.38	0.71
HL3-40	400	30	60	1.0	1.74	0.5	0.95
HL3-60	600	30	90	1.5	2.62	0.75	1.48
HL4-100	1000	30	150	3	5.92	1.5	2.87
HL4-160	1600	50	150	3	5.92	1.5	2.87
HL4-200	2000	60	150	3	5.92	1.5	2.87
HL5-250	2500	50	200	3.9	7.24	1.9	3.05
HL5-300	3000	60	200	3.9	7.24	1.9	3.05
HL6-400	4000	100	200	4.1	7.13	2.1	3.17
HL6-600	6000	150	200	4.1	7.13	2.1	3.17

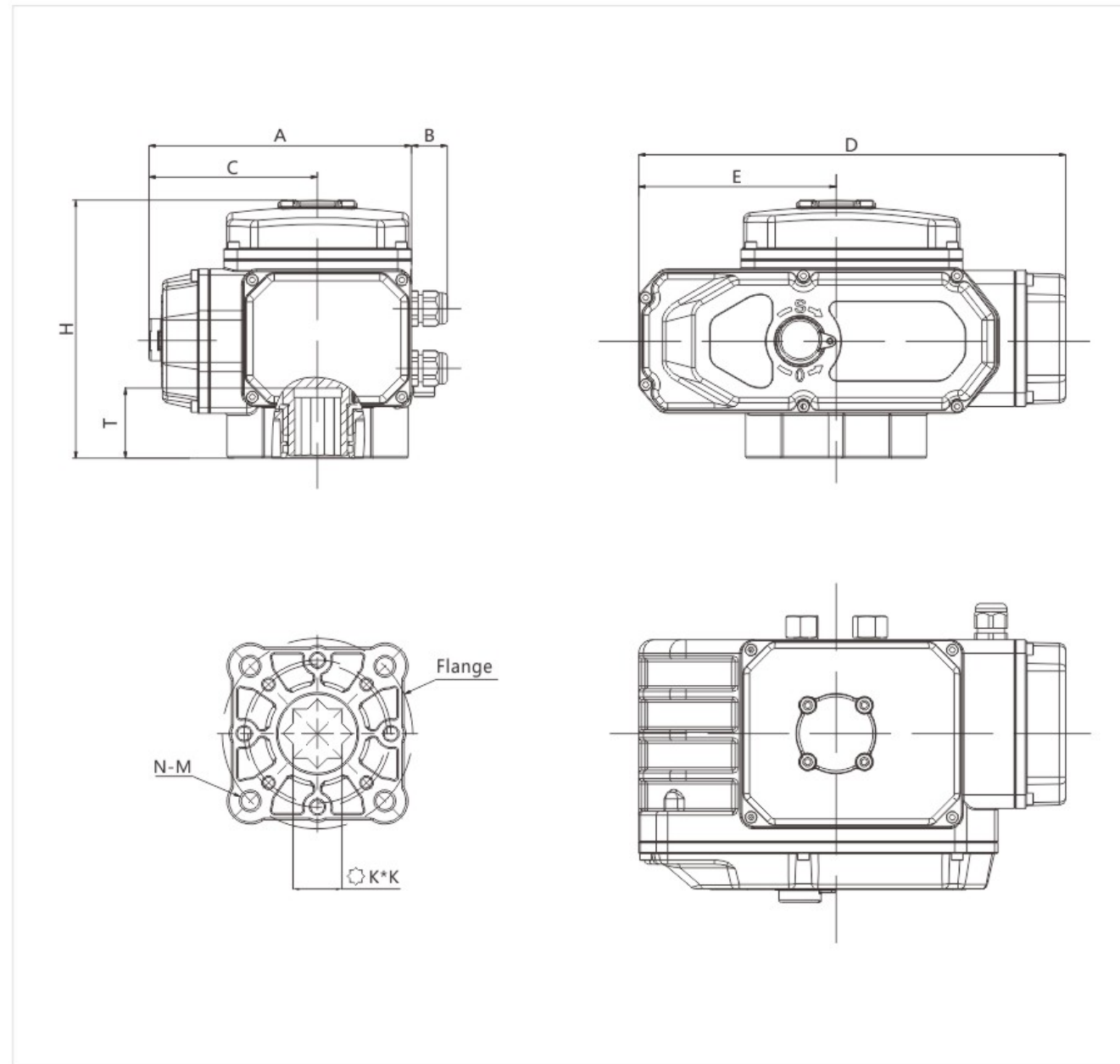
#### DC

Model	Torque ( NM )	Time ( SEC/0-90° )	Motor power ( W )	24VDC Current ( A )		48VDC Current ( A )	
				Running	Blocking	Running	Blocking
HL1-05	50	15	12	1.25	2.3	0.7	1.5
HL2-10	100	10	30	3.5	5.3	1.9	3.4
HL2-15	150	15	30	3.5	5.3	1.9	3.4
HL3-25	250	15	40	4.0	6.5	2.1	5.3
HL3-40	400	15	60	6.8	10.3	3.6	5.3
HL3-60	600	15	90	9.5	15.8	4.6	6.5
HL4-100	1000	30	90	9.5	16.4	4.6	6.5
HL4-160	1600	30	120	15	27	8	10.3
HL4-200	2000	30	150	18	27	10	15.8

#### 3PH

Model	Torque ( NM )	Time ( SEC/0-90° )	Motor power ( W )	380VAC Current ( A )		440VAC Current ( A )	
				Running	Blocking	Running	Blocking
HL1-05	50	30	10	0.11	0.13	0.1	0.12
HL2-10	100	20	30	0.12	0.17	0.11	0.13
HL2-15	150	30	30	0.13	0.17	0.12	0.13
HL3-25	250	30	40	0.18	0.25	0.17	0.23
HL3-40	400	30	60	0.25	0.49	0.23	0.47
HL3-60	600	30	90	0.3	0.49	0.27	0.47
HL4-100	1000	30	150	0.67	1.31	0.59	1.11
HL4-160	1600	50	150	0.67	1.31	0.59	1.11
HL4-200	2000	60	150	0.67	1.31	0.59	1.11
HL5-250	2500	50	200	0.9	1.76	0.79	1.54
HL5-300	3000	60	200	0.9	1.76	0.79	1.54
HL6-400	4000	100	200	0.9	1.76	0.79	1.54
HL6-600	6000	150	200	0.9	1.76	0.79	1.54

## Dimension Diagram

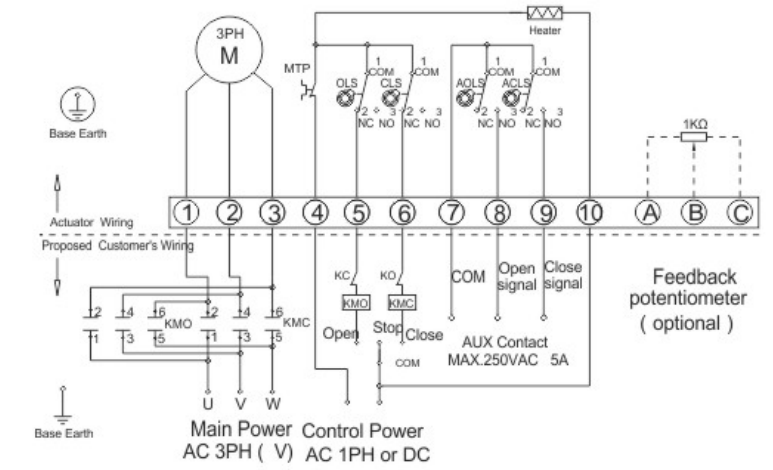


Model	Flange	A	B	C	D	E	H	T	K*K	N-M
HL1	F03.F05.F07	113	26.5	70.5	178	87	119.5	26	14×14	4-M5.4-M6.4-M8
HL2	F05.F07	124.5	26.5	82.5	217	105	137.5	35	17×17	4-M6.4-M8
HL3	F07.F10.F12	166	26.5	104	291	140	157.5	45	22×22 or 27×27	4-M8.4-M10.4-M12
HL4	F12 or F10.F14	198	26.5	124	314	145	198.5	50	27×27 or 36×36	4-M12 or 4-M10.4-M16
HL5	F14 or F12.F16	234	26.5	139.5	325	150	257	61	27×27 or 36×36	4-M16 or 4-M12.4-M20
HL6	F16.F25	266	26.5	155	439	189	309	82	36×36 or 46×46	4-M20.8-M16

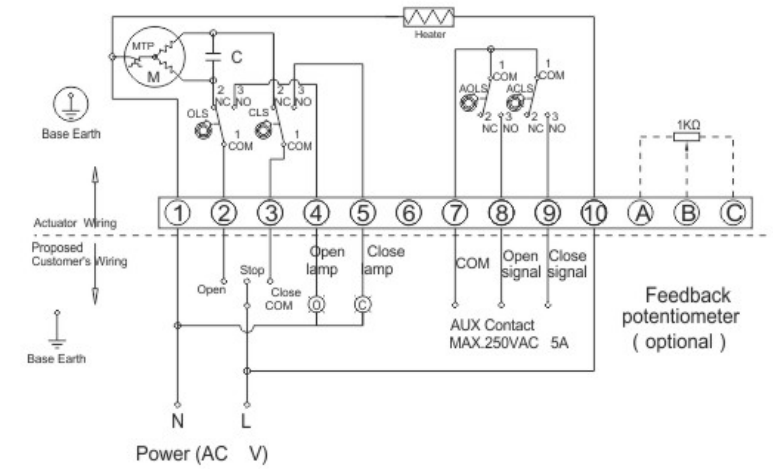
## Circuit Wiring Diagram



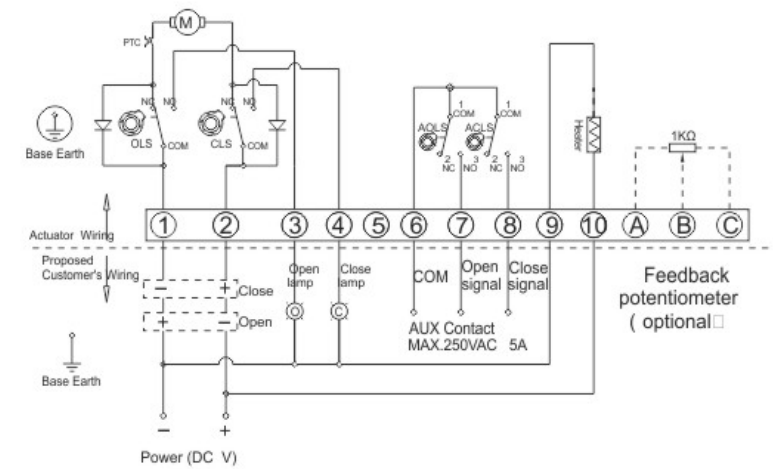
### S type: Basic On Off type(3PH)



### S type: Basic On Off type(1PH)



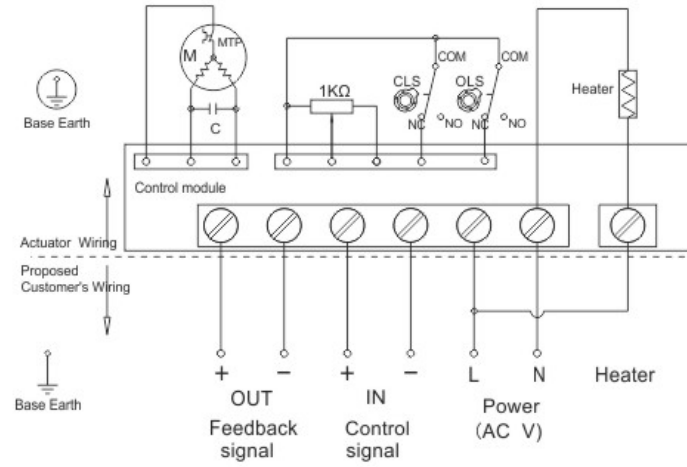
### S type: Basic On Off Type(DC Power)



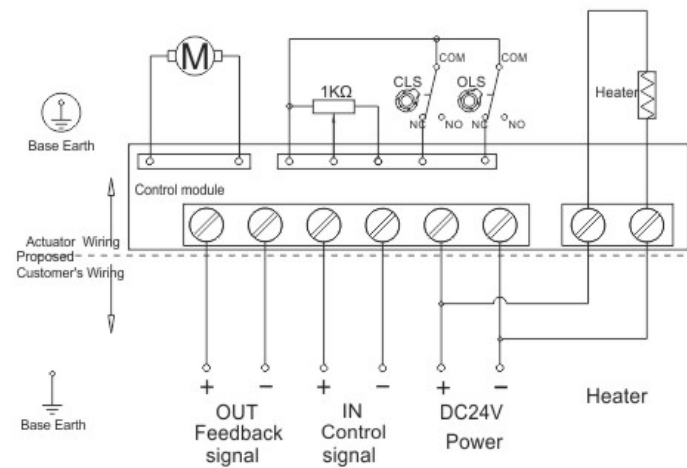


**Circuit Wiring Diagram**

**A Type: Basic modulating type(1PH)**



**A Type: Basic modulating type(DC Power)**



**HL series quarter-turn electric actuator**  
Smart appearance, light weight,  
Easy to install, economical and durable.



**ZX series small electric actuator**  
Torque: 9N.m~24N.m  
Explosion proof, Weather proof



**LQ series quarter-turn electric actuator**  
Overtorque protection, explosion proof as  
option, Intelligent control to meet more I  
ndustrial application.



**HLF series damper electric actuator**  
Suitable for heating, ventilation, air  
conditioning, refrigeration, building  
automation etc.



**HEM series multi-turn electric actuator**  
LCD display, Local/remote control operation  
selector, suitable for big size butterfly valves,  
ball valves, globe valves, Gate valves etc.



**HAT series rack and pinion pneumatic actuator**  
Maximum torque: 9340Nm



**HEQ series electric actuator**  
New optimized design, high enclosure  
protection, low noise, Double anti-condensation,  
independent control unit.



**Electric valves series**  
Butterfly valves, ball valves, gate valves,  
regulating valves, etc. with different pressure  
class, mounting bases and operation methods.