

Taizhou Tonhe Flow Control Co., Ltd

Email: tohe08@china-tonhe.com Skype: meizi2661

Mobile: +86-18957612187

URL: www.china-tonhe.com | www.tonheflow.com

A150 Series

A150 torque 15NM, with manual override,

Actuator model: turn on off type, proportional type, timer control type (optional)

Valve body model:

1.DN15-50	2.DN15-32	3.DN32-50 F03	4.DN15-25	5.DN15-32 3pcs	6.DN20-32 health grade
					
Pressure≤1.0MPa	Pressure≤1.0MPa	Pressure≤1.0MPa	Pressure≤1.5MPa	Pressure≤3MPa	Pressure≤1.0MPa
2 way	3 way	2 way	3 way	2 way	2 way
PVC	PVC	SS304 SS316	SS304 SS316	SS304 SS316	SS304 SS316

Technical Parameters 开关型技术参数

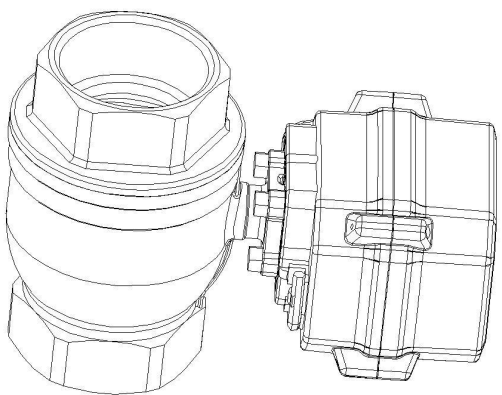
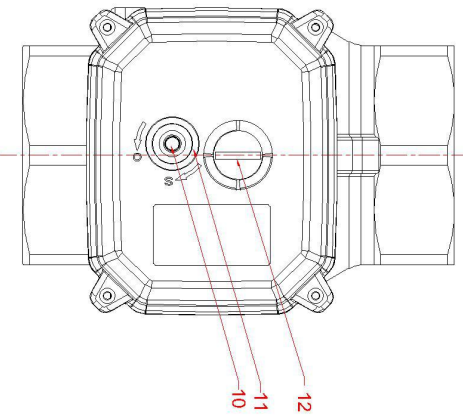
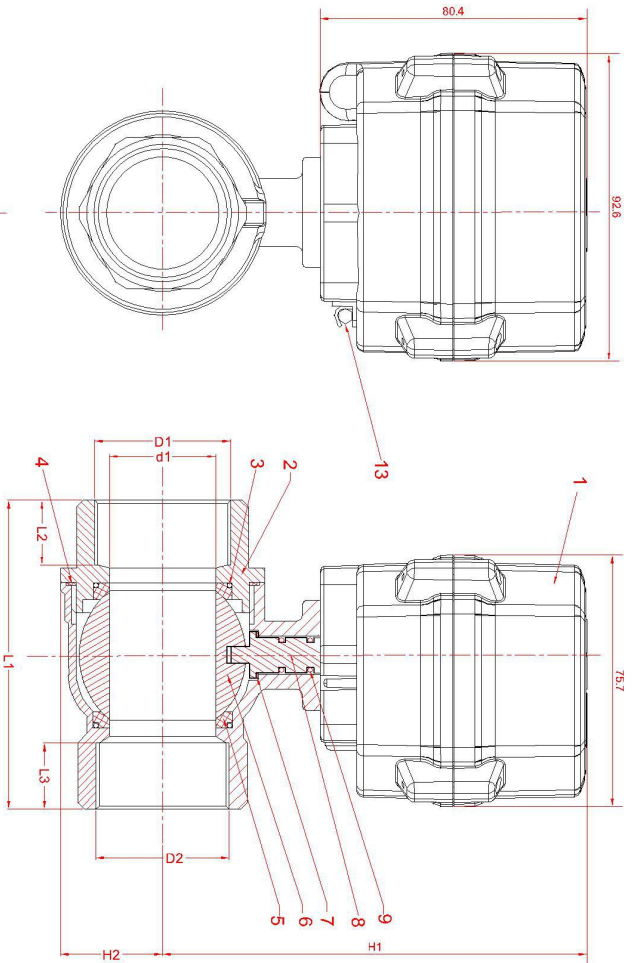
Connection standard 连接标准	ISO5211 F03、F05
Output axis specification 输出轴规格	Female octagonal 9*9 or 11*11
Maximum working pressure 最大介质压力	1.5MPa
Rated voltage 额定电压	DC12V; DC24V ; AC24V ;DC12-24V ;AC110-230v (Optional)
Wiring diagram 接线图	CR201;CR202;CR301;CR303;CR306;CR501;CR502;CR702;CR703;CR706 (Optional)
Life time 寿命	70000 times (testing pressure is 0.4MPa, medium is water)
Actuator material 执行器材质	Engineering Plastics PPO
Torque force 扭力	15 N.m
Cable Length 线长	0.5m;1.5m (Optional)
Environment temperature 环境温度	-15℃~60℃
Liquid temperature 液体温度	2℃~90℃
Manual operation 手动操作	Yes
Open/close indicator 开关指示	Yes

Protection class 防护等级	IP67
Company quality management system 公司认证	ISO 9001:2015

model specification and main performance parameters(Testing pressure is 0.4MPa, Medium is water)

Wiring diagram	otation	Open/ close time	Rated current (A)			Power(W)	Number of manual turns
			AC 24V	DC 12V	DC 24V		
201/501	90°	≤11	/			<30W	8
202/502			<0.78	<1	<0.5		
301/702			<0.3	<0.4	<0.2		
303/703			<0.3	<0.42	<0.2		
306/706			<0.78	<1	<0.5		

A150 turn on/off type 2 way assembly diagram



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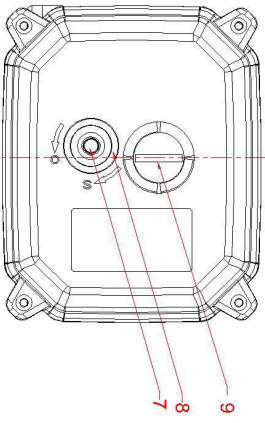
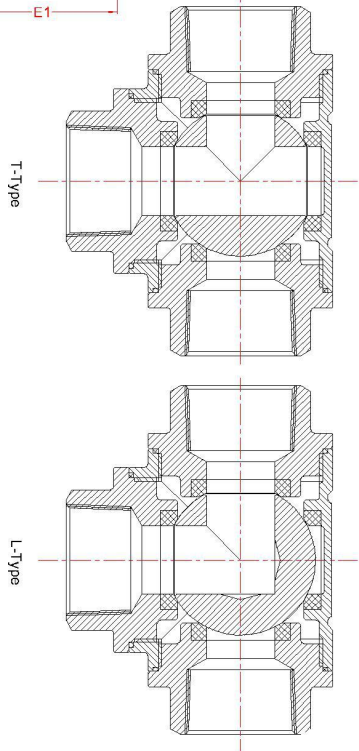
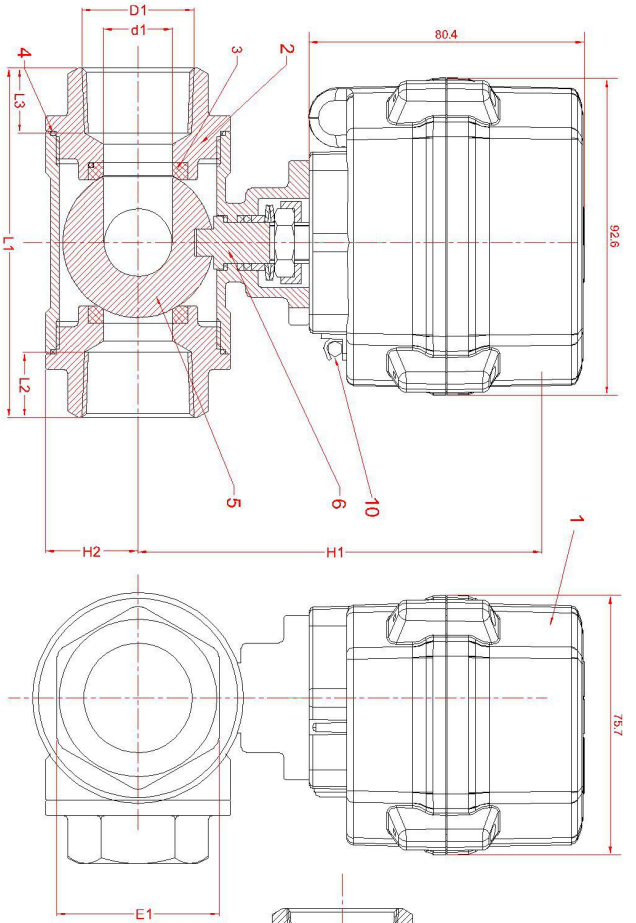
T50(2") Electric valve	2"	49	130	25±1	66	141.4	44.5
T40(1 1/2") Electric valve	1 1/2"	38	115	25±1	52	130	36
T32(1 1/4") Electric valve	1 1/4"	32	102	23±1	47	122	31
DESCRIPTION	D1/D2	d1	L1	L2/L3	E1	H1	H2

No.	NAME	Material	Specification	Quantity
13	Hexagon wrench	stainless steel	303	1
12	Indicator	PC		1
11	Oil-seal	NBR		1
10	Manual Shaft	stainless steel	303	1
9	O-ring	FKM		2
8	Stem	stainless steel	304	1
7	Gasket	PTFE		1
6	Ball	stainless steel	304	1
5	Sealing	PTFE		2
4	Sealing	PTFE		1
3	O-ring	FKM		2
2	Body Cover	stainless steel	304	1
1	Actuator	PPO		1

MATERIAL	DRN & DATE	A150-T 2Way Electric Valve	MODEL NO
QTY/SET	2017-10-14		
FINISH	CHK & DATE		
TREATMENT	APPD & DATE		
COLOUR	MM	SCALE	DRG NO/PPD REF NO
UNIT	MM		
SHEET NO			ISSUE

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A150 turn on/off type 3 way assembly diagram



T25 (1") Electric valve	1"	18	85	15	38.5	127	23.5
T20 (3/4") Electric valve	3/4"	15	75	15	31	120	20
T15 (1/2") Electric valve	1/2"	12	68	14	24.5	117	18
DESCRIPTION	D1	d1	L1	L2/L3	E1	H1	H2

No.	NAME	Material	Specification	Quantity
10	Hexagon wrench	stainless steel	303	1
9	Indicator	PC		1
8	Oil-seal	NBR		1
7	Manual Shaft	stainless steel	303	1
6	Stem	stainless steel	304	1
5	Ball	stainless steel	304	1
4	Sealing	PTFE		3
3	Sealing	PTFE		4
2	Body Cover	stainless steel	304	1
1	Actuator	PPO		1

MATERIAL		DRN & DATE	A150-T 3Way Electric Valve	MODEL NO
QTY/SET		2017-10-14		
FINISH		CHK & DATE		
TREATMENT				
COLOUR		APPD & DATE		
UNIT		MM		
SCALE				
DRG NO/PDD REF NO				
SHEET NO				
ISSUE				

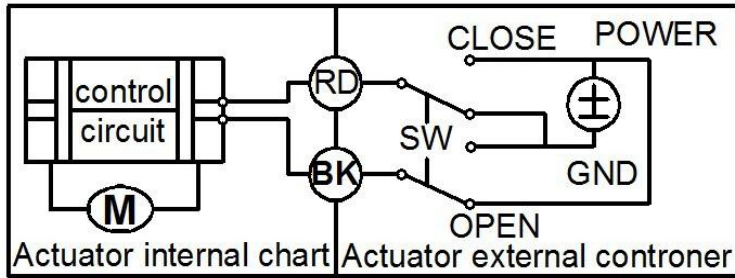
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PART CODE :

Wiring diagram Turn on/off type

CR201 (2 wires control)



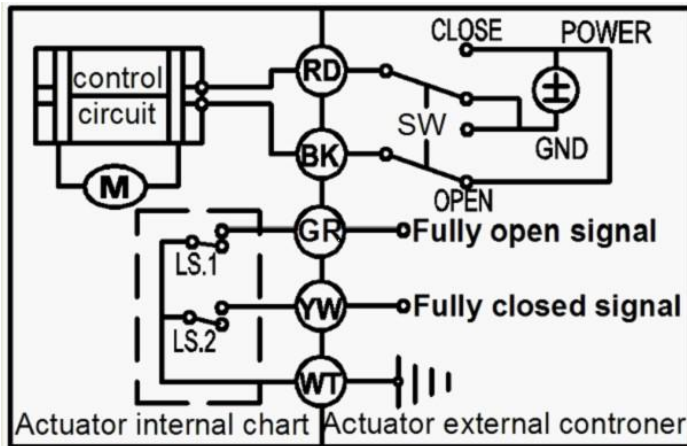
·RD connect with positive, the BK connect with negative, the valve closed, the actuator automatically power off after in place , the valve remains fully closed position .

·BK connect with positive, the RD connect with negative, the valve open, the actuator automatically power off after in place, the valve remains fully open position .

* Suitable Working Voltage: **DC12V, DC24V**

* Exceeding the working voltage is forbidden

CR501 (5 wires control, with feedback wire)



1. RD connect with positive, the BK connect with negative, the valve closed, the actuator automatically power off after in place .

2 BK connect with positive, the RD connect with negative, the valve open, the actuator automatically power off after in place .

4. GR & WT are connect when the valve open fully, YW & WT are connect when the valve closed fully

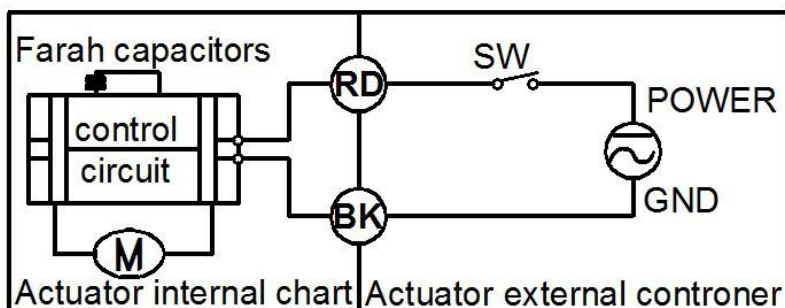
Suitable Working Voltage: **DC12V, DC24V**

Exceeding the working voltage is forbidden

Feedback wire capacity:

1. Voltage: DC0-35v; 2. Maximum current: 0.4A

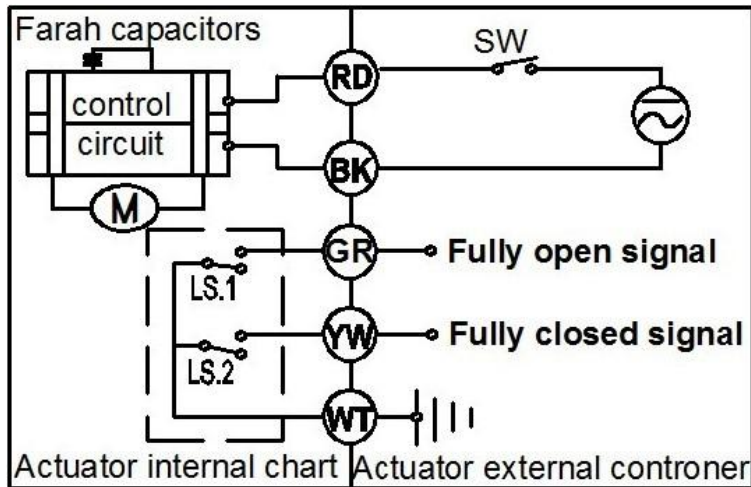
CR202 (2 wires control--- Reset function, Normally closed or normally open)



- When SW is closed , the valve open. the actuator automatically power off after in place
- When SW is open, the valve closed, the actuator automatically power off after in place
- * Suitable Working Voltage: **AC24V, DC12-24V, AC110-230v**
- * Exceeding the working voltage is forbidden

Please Note A150 CR202 must need charge time >1 minute for every time use

CR502 (5 wires control, Reset function, With feedback signal)



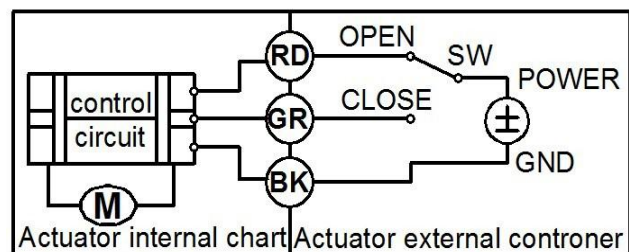
- When SW is closed , the valve open. the actuator automatically power off after in place
- When SW is open, the valve closed, the actuator automatically power off after in place
- * GR & WT are connect when the valve open fully, YW & WT are connect when the valve closed fully
- * Suitable Working Voltage: **AC24V, DC12-24V, AC110-230v**
- * Exceeding the working voltage is forbidden

Feedback wire capacity:

1. Voltage: DC0-35v; 2. Maximum current: 0.4A

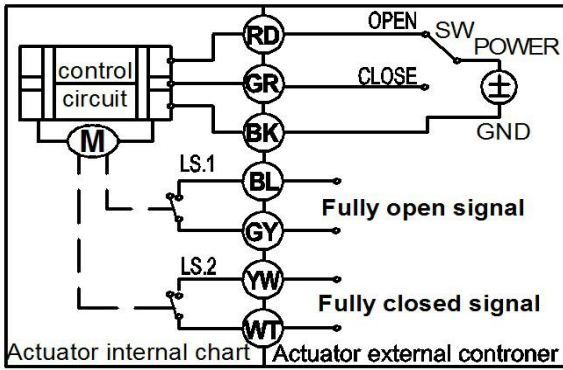
Please Note A150 CR202 must need charge time >1 minute for every time use

CR301 (3 wires control)



- RD & GR connect with positive, BK connect with negative
- When OPEN(RD) & SW connected , the valve open, the actuator automatically power off after in place , valve remains fully open position
- When CLOSE(GR) & SW connected, the valve closed, the actuator automatically power off after in place, valve remains fully closed position.
- * Suitable Working Voltage: DC12V, DC24V,AC24v,DC12v-24v
- * Exceeding the working voltage is forbidden

CR702 (7 wires control)

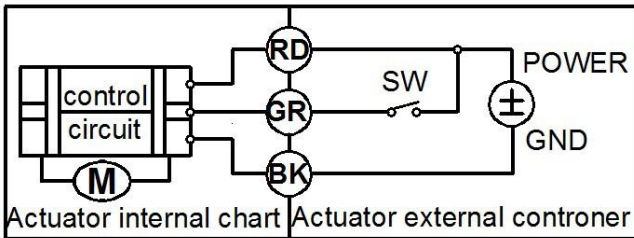


1. RD & GR connect with positive, the BK connect with negative
 2. When RD & SW connected, the valve open, the actuator automatically power off after the valve fully open.
 3. When GR & SW connected, the valve closed, the actuator automatically power off after the valve fully closed,.
 4. BL & GY connect with the valve's fully open signal wiring
 5. YW & WT connect with the valve's fully closed signal wiring
- * Suitable Working Voltage: **DC12V, DC24V, AC24v, DC12v-24v**
- * Exceeding the working voltage is forbidden

- **Feedback wire capacity:**

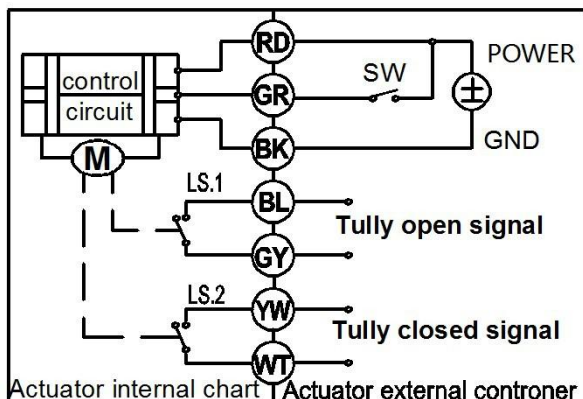
1. Voltage: DC0-35v; 2. Maximum current: 0.4A

CR3 03 Wiring Diagram (3 wires control)



- RD connect with positive, GR connect with SW & positive
 - BK connect with negative
 - When the SW of GR closed, the valve OPEN, the actuator automatically power off after in place , remains fully closed position
 - When the SW of GR open, the valve CLOSED, the actuator automatically power off after in place , remains fully open position.
- * Suitable Working Voltage: **DC12V, DC24V, AC24v, DC12-24v, AC110-230v**
- * Exceeding the working voltage is forbidden

CR7 03 Wiring Diagram (7 wires control with feedback signal)

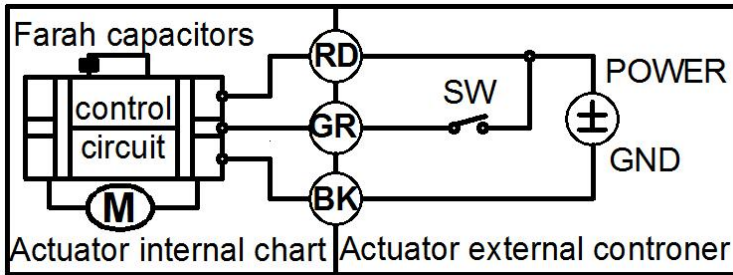


- RD& GR connect with positive, the BK connect with negative.
- SW CLOSED, the valve OPEN, the actuator automatically power off after in place
- SW OPEN, the valve CLOSED, the actuator automatically power off after in place.
- BL & GY connect with the valve's fully open signal wiring
- YW & WT connect with the valve's fully closed signal wiring.
- * Suitable Working Voltage: **DC12V, DC24V, AC24V, DC12-24V, AC110-230v**
- * Exceeding the working voltage is forbidden

Feedback wire capacity:

1. maximum voltage DC36V, AC220V; 2. maximum current 0.4 A.

CR3 06 Wiring Diagram (3 wires control – Power reset funtion)



1)Power off(failure), valve close

- RD& GR connect with positive, the BK connect with negative
- SW CLOSED, the valve close, the actuator automatically power off after in place
- SW OPEN, the valve open, the actuator automatically power off after in place.

Power off, valve close itself.

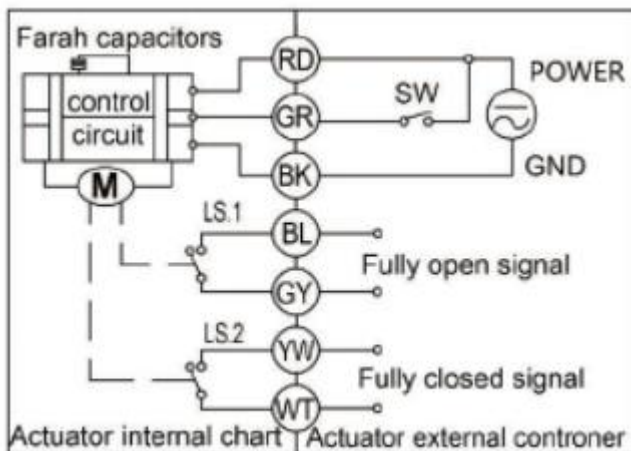
2)Power off(failure), valve open

- RD& GR connect with positive, the BK connect with negative
- SW CLOSED, the valve open, the actuator automatically power off after in place
- SW OPEN, the valve close, the actuator automatically power off after in place.

Power off, valve open itself.

- * Suitable Working Voltage: AC24V, DC12V-24V, AC110-230v
- * Exceeding the working voltage is forbidden

CR706 (7 wires control)



1)Power off(failure), valve close

- RD& GR connect with positive, the BK connect with negative
- SW CLOSED, the valve close, the actuator automatically power off after in place
- SW OPEN, the valve open, the actuator automatically power off after in place.

Power off, valve close itself.

2)Power off(failure), valve open

- RD& GR connect with positive, the BK connect with negative
- SW CLOSED, the valve open, the actuator automatically power off after in place
- SW OPEN, the valve close, the actuator automatically power off after in place.

Power off, valve open itself.

- BL & GY connect with the valve's fully open signal wiring
- YW & WT connect with the valve's fully closed signal wiring.
- * Suitable Working Voltage: AC24V, DC12V-24V,AC110-230v
- * Exceeding the working voltage is forbidden