

TAIZHOU TONHE FLOW CONTROL EQUIPMENT CO., LTD



Tonhe A20-T Series ELECTRIC BALL VALVE



CE IP67



CE IP67

Contact:yoyo

Whatsapp:+86-13676642305

Skype:meizi2661

Email:tonhe08@china-tonhe.com

TEL: +86-576-81100233/84297288.

FAX: +86-576-81100232

URL: www.china-tonhe.com

Technical Parameters

Product size	<input type="checkbox"/> NPT/BSP 1/2" <input type="checkbox"/> NPT/BSP 3/4" <input type="checkbox"/> NPT/BSP 1" (Optional)
Maximum working pressure	1.3 MPa
Circulation medium	Fluid, air
Rated voltage	<input type="checkbox"/> DC5V/ <input type="checkbox"/> DC12V <input type="checkbox"/> DC24V <input type="checkbox"/> AC/DC9-24V <input type="checkbox"/> DC9-35V <input type="checkbox"/> AC110-230V (Optional)
Wiring control methods	<input type="checkbox"/> CR2-01 <input type="checkbox"/> CR2-02 <input type="checkbox"/> CR3-01 <input type="checkbox"/> CR3-02 <input type="checkbox"/> CR3-03 <input type="checkbox"/> CR3-04 <input type="checkbox"/> CR3-05 <input type="checkbox"/> CR4-01 <input type="checkbox"/> CR5-01 <input type="checkbox"/> CR5-02 <input type="checkbox"/> CR7-01 <input type="checkbox"/> CR7-02 <input type="checkbox"/> CR7-03 <input type="checkbox"/> CR7-04 (Optional)
Working current	≤500MA
Open/close time	≤5S / ≤7S (Optional)
Life time	50000 times

Valve Body material	<input type="checkbox"/> Brass <input type="checkbox"/> Nickel plated Brass <input type="checkbox"/> 304 Stainless steel (Optional)
Actuator material	Engineering Plastics
Sealing material	EPDM & PTFE
Actuator rotation	90°
Max. torque force	2 N.m
Cable Length	0.5m,1.5m (Optional)
Environment temperature	-15℃~50℃
Liquid temperature	2℃~90℃
Manual override	<input type="checkbox"/> Yes <input type="checkbox"/> No (Optional)
Indicator	<input type="checkbox"/> Yes <input type="checkbox"/> No (Optional)
Protection class	IP67

Assembly diagram :

PART CODE :

No.	NAME	Material	Specification	Quantity
7	O-ring	NBR		2
6	Stem	Brass		2
5	Ball	Brass		1
4	Sealing	PTFE		2
3	O-ring	EPDM		2
2	Body Cover	Brass		1
1	Actuator	PPO		1

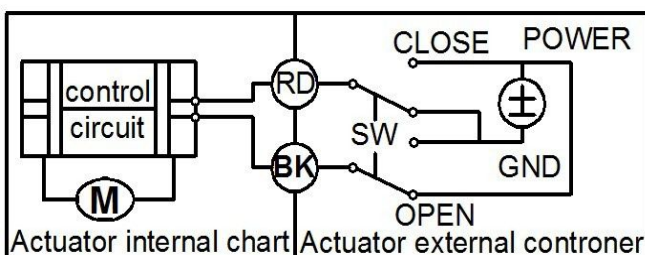
DESCRIPTION	D1/A22/D33	d1	W1	L1	L2	L3	H1	H2
T25(1") Electric valve	1"	24	8	73	16	4	77	40
T20(3/4") Electric valve	3/4"	15	7	66	16	3	71	31
T15(1/2") Electric valve	1/2"	12	7	58	10	3	70	27

MATERIAL	DRW & DATE	TITLE	MODEL NO
STY/SET		A20 Electric valve	
FINISH	CHK & DATE		
TREATMENT			
COLOR	APPD & DATE		SHEET NO
UNIT	MM	SCALE	ISSUE
		DRG NO/POD REF NO	

Taizhou Tonhe Flow Control Equipment Co.,Ltd www.china-tonhe.com

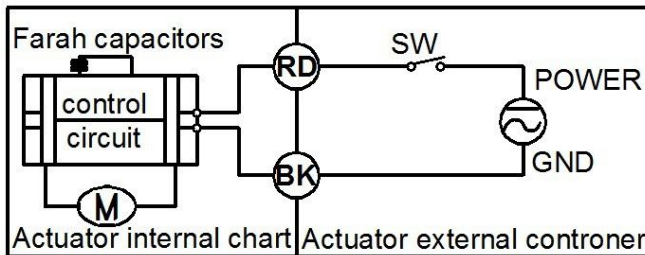
Wiring diagram

CR2 01 Wiring Diagram (2 wires control)



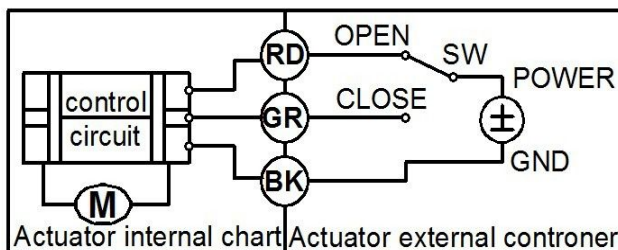
- RD connect with positive, the BK connect with negative, the valve closed, the actuator automatically power off after in place , the valve remains fully closed position .
- BK connect with positive, the RD connect with negative, the valve open, the actuator automatically power off after in place, the valve remains fully open position .
- * Suitable Working Voltage: DC5V/DC12V/DC24V
- * Exceeding the working voltage is forbidden

CR2 02 Wiring Diagram (2 wires control – Spring return in case of the power is failure)



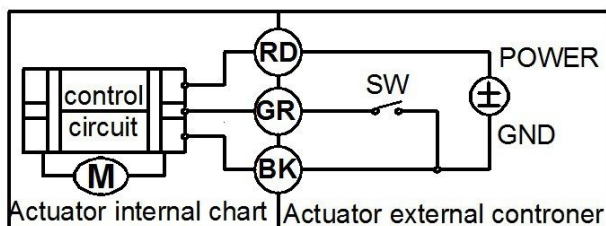
- When SW is closed , the valve open. the actuator automatically power off after in place
- When SW is open, the valve closed, the actuator automatically power off after in place
- * Suitable Working Voltage: AC/DC9-24V , AC/DC110V-230V,AC/DC9-35V(with manual override) , AC/DC3-6V.
- * Exceeding the working voltage is forbidden

CR3 01 Wiring Diagram (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: DC5V/DC12V/DC24V/AC/DC9-35V
- * Exceeding the working voltage is forbidden

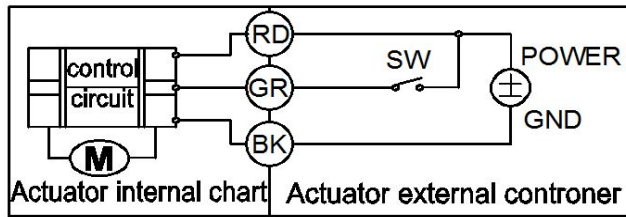
CR3 02 Wiring Diagram (3 wires control)



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

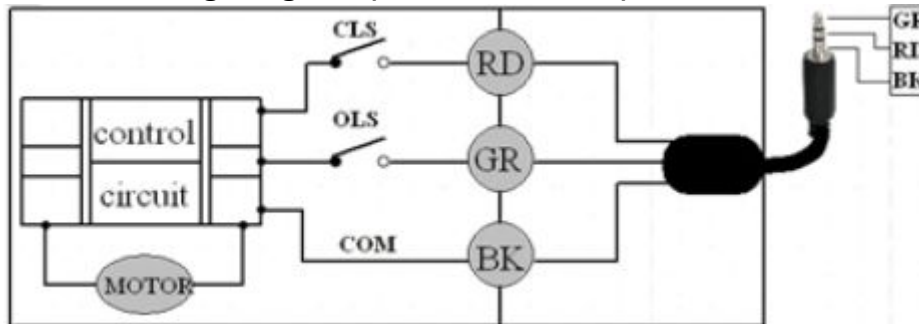
- SW OPEN, the valve CLOSED, the actuator automatically power off after in place.
- * Suitable Working Voltage: DC9-35V
- * Exceeding the working voltage is forbidden

CR3 03 Wiring Diagram (3 wires control)



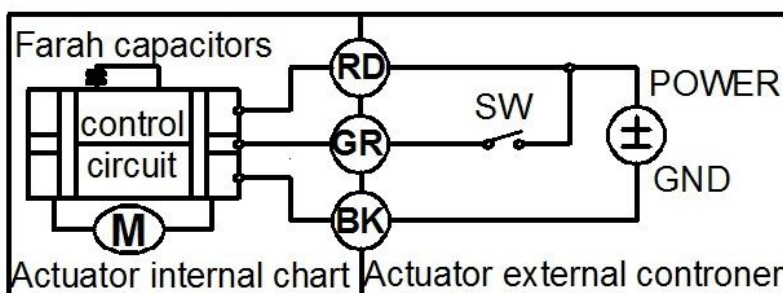
- RD& GR connect with positive, the BK connect with negative.
- SW CLOSED, the valve OPEN, the actuator automatically power off after in place
- SW OPEN, the valve CLOSED, the actuator automatically power off after in place.
- * Suitable Working Voltage: AC/DC9-35V
- * Exceeding the working voltage is forbidden

CR3 04 Wiring Diagram (3 wires control)



- RD & GR connected with positive, and the BK connected with negative
- When RD & SW connected, the valve closed, the actuator automatically power off after in place , remains fully closed position
- When GR & SW connected, the valve open, the actuator automatically power off after in place , remains fully open position.
- * Suitable Working Voltage: DC5V/DC12V/AC/DC9-35V
- * Exceeding the working voltage is forbidden

CR3 05 Wiring Diagram (3 wires control – Spring return in case of the power is failure)

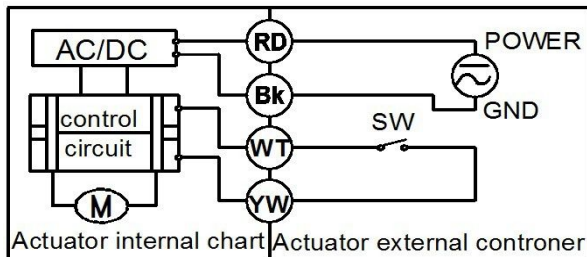


- RD& GR connect with positive, the BK connect with negative.
- SW CLOSED, the valve OPEN, the actuator automatically power off after in place
- SW OPEN, the valve CLOSED, the actuator automatically power off after in place.

When external power off, the valve closed, the actuator automatically power off after in place

- * Suitable Working Voltage: AC110-230V
- * Exceeding the working voltage is forbidden

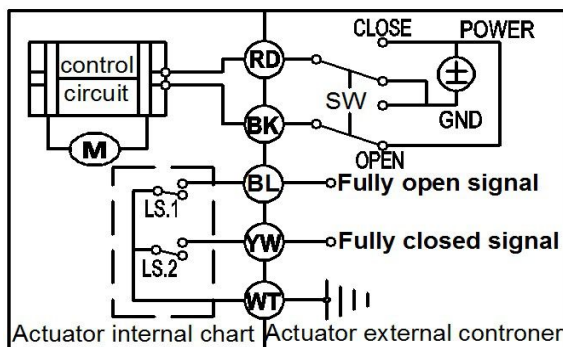
CR4 01 Wiring Diagram (4 wires control)



1. RD & BK are connected to the power, WT & YW are connected to the controlled wiring.
2. When the SW is closed , the valve open
3. When the SW is open , the valve closed

Suitable Working Voltage: AC/DC110V-230V, * Exceeding the working voltage is forbidden

CR5 01 Wiring diagram (with feedback signal)

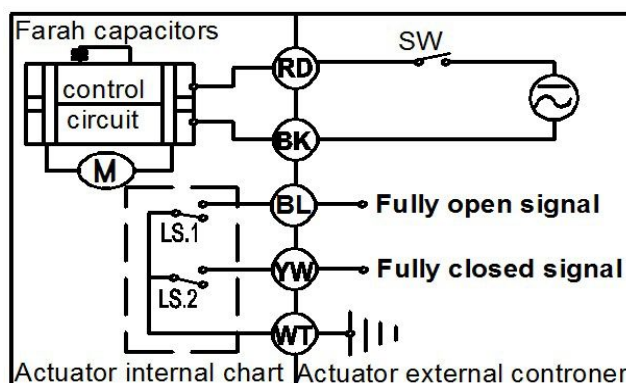


1. RD connect with positive, the BK connect with negative, the valve closed, the actuator automatically power off after in place .
2. BK connect with positive, the RD connect with negative, the valve open, the actuator automatically power off after in place .
4. BL & WT are connect when the valve open fully, YW & WT are connect when the valve closed fully

Suitable Working Voltage: DC5V/DC12V/DC24V

- * Exceeding the working voltage is forbidden!

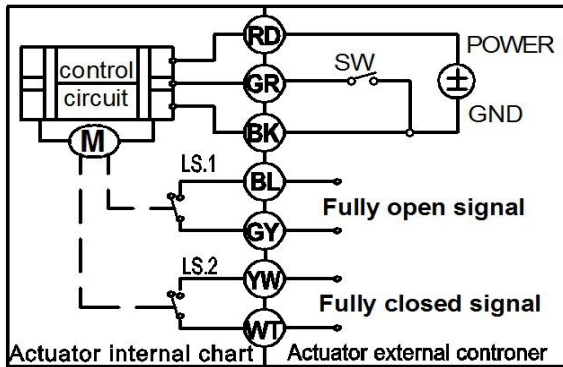
CR5 02 Wiring diagram (with feedback signal)



·When SW is closed , the valve open. the actuator automatically power off after in place

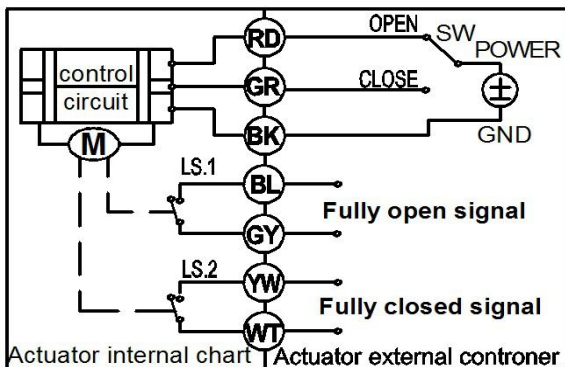
- When SW is open, the valve closed, the actuator automatically power off after in place
- * BL & WT are connect when the valve open fully, YW & WT are connect when the valve closed fully
- * Suitable Working Voltage: AC/DC9-24V , AC/DC110V-230V,AC/DC9-35V(with manual override) , AC/DC3-6V.
- * Exceeding the working voltage is forbidden

CR7 01 Wiring Diagram (7 wires control with feedback signal)



- RD connect with positive
- GR connect with SW and negative wiring
- BK connect with negative wiring
- SW open. the valve open, and keeping fully open.
- SW closed. the valve closed, and keeping fully closed.
- 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: DC5V, DC12V, DC24V, AC/DC9-35V(wide input range voltage,)
- * Exceeding the working voltage is forbidden
- ※ Feedback with load ability:
- ① The Max. off voltage: DC36V AC220V ② The Max. off current: $\leq 0.4A$

CR7 02 Wiring Diagram (7 wires control with feedback signal)



- 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

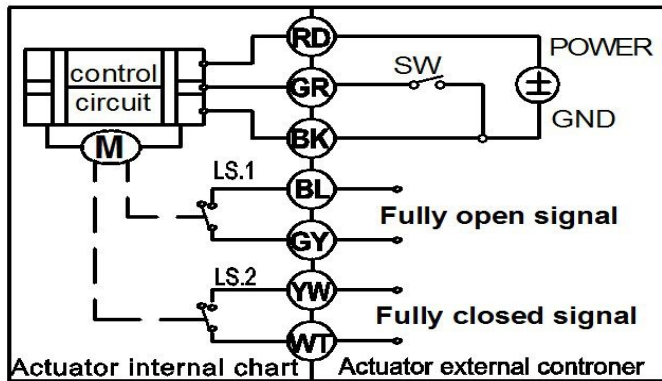
* Suitable Working Voltage: DC5V/AC/DC9-35V

* Exceeding the working voltage is forbidden

※ Feedback with load ability:

① The Max. off voltage: DC36V AC220V ② The Max. off current: $\leq 0.4A$

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.

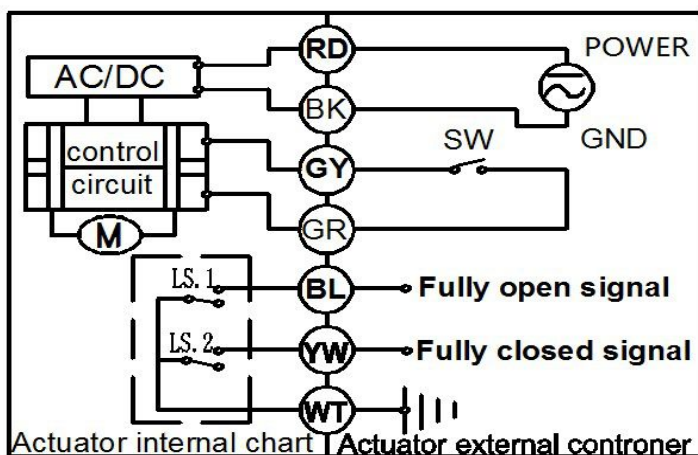
·BL & GY connect with the valve's fully open signal wiring

·YW & WT connect with the valve's fully closed signal wiring.

* Suitable Working Voltage: AC/DC9-35V

* Exceeding the working voltage is forbidden

CR7 04 Wiring Diagram (7 wires control with feedback signal)



·RD & BK are connected to the power, WT & YW are connected to the controlled wiring.

·When the SW is closed , the valve open

·When the SW is open , the valve closed

·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: AC/DC110V-230V

* Exceeding the working voltage is forbidden

