



## Electronic Ceramic-core Ball Valve

48820A (Old Model No.: F93B1)

48820A/C (Old Model No.: F93B1/C)

48820B (Old Model No.: F93B2)

48820C (Old Model No.: F93B3)

48825A (Old Model No.: F93C1)

48825B (Old Model No.: F93C2)

48825C (Old Model No.: F93C3)

## Instruction Manual



Please read this manual in details  
before using this valve and keep it properly  
in order to consult in the future

0WRX.466.544

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## 1.Product Overview

Valve core is made of ceramics which have good performance of lubrication, hardness and anti-friction, manufactured by advanced polishing equipment and workmanship, with good roundness and surface quality. It overcomes the shortcomings of easy leakage, big torque and corrosion of metal-sealed ball valves. The ceramic ball valve has a long lifetime which is 2-4 times that of titanium alloy valve and monel valve.

## 2.Working Application

- ※ Small-sized equipment which requires high-efficient water saving, automatic control and industrial self-control.
- ※ Projects of environmental protection, water supply and drainage, food and water treatment.
- ※ Water-saving utensils, drinking water equipment, solar energy, washer, and etc.
- ※ Chemical preparations, petrochemical and oil products and other corrosive liquids
- ※ Not applicable to high-viscosity media.

### 3.Product Characteristics

- ◆ With ceramic ball valve as the core assembly, it has a good performance of abrasion and corrosion resistance, good sealing and a long lifetime which is more than 100,000 times.
- ◆ Small torque, opening and closing time  $\leq 15s$ .
- ◆ Pleasing appearance and compact structure.
- ◆ As substitute in the places where electronic ball valves are not applicable.
- ◆ High protection degree, suitable in humid surroundings.

### 4.Technical Parameters

Model	Nominal Diameter	Structure	Valve Stem Material	Electric Facility
F93B1	DN20	Two-ports	316L	DC6V
F93B1/C			HPb59-1	
F93B2			316L	DC12V
F93B3			316L	DC24V
F93C1	DN25	Two-ports	316L	DC6V
F93C2				DC12V
F93C3				DC24V

Valve Body: Strengthened PPO

Seal Ring: EPDM

Working Pressure: 0~1.0MPa

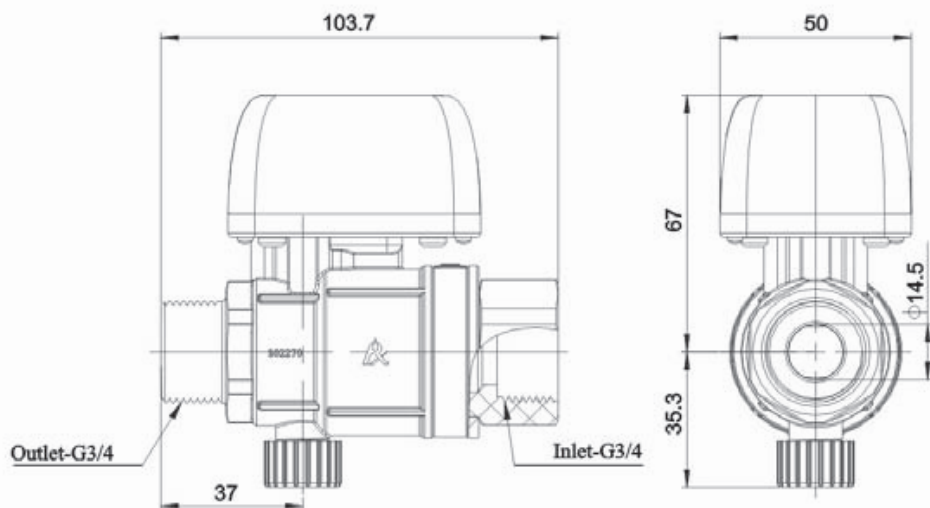
Working Temperature: 1℃ ~ 60℃

Control Mode: Open and close the switch valve by the exchange of power polar.

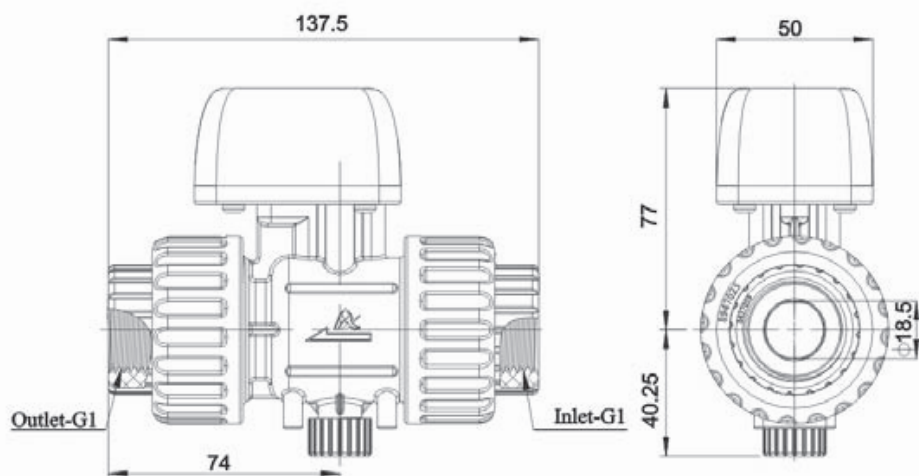
Note: F93B1/C is not applicable to corrosive media.

## 5.Product Appearance and Installation Dimensions

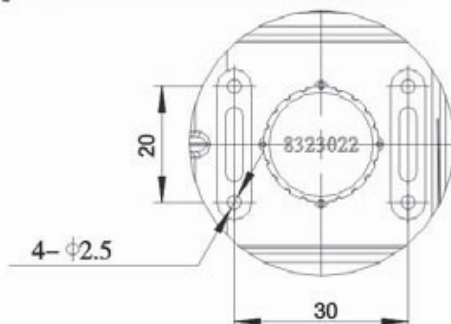
### 1. F93B1, F93B1/C, F93B2,F92B3 Appearance and Installation Dimensions



### 2. F93C1, F93C2,F93C3 Appearance and Installation Dimensions



### 3. Fixed Base Appearance and Installation Dimensions

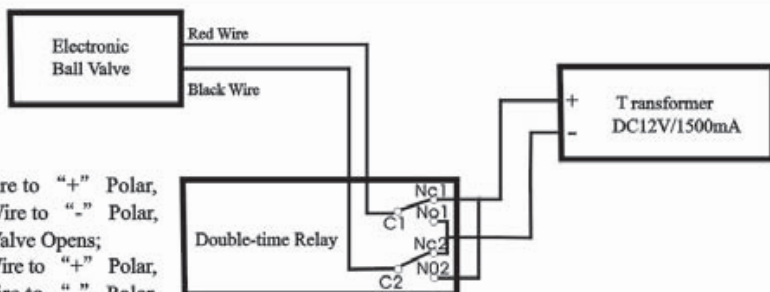


Note: 40 piece of ST2.9X13 cross screw are affiliated accessories and can be installed according to their needs.

## 6.Installation Requirements and Notices

1. The ball valve can match with two different adapters: 6VDC or 12VDC. In connecting adapters, please note that the status of electronic ball valve changes each time the anode and cathode of power is exchanged.
2. The product should be installed in accordance with the flow of water which is marked in the valve body, forbidden to connect it in a reverse way.
3. The default status of the product is open, and the initial status can be adjusted according to their needs.
4. Only professional personnel can uninstall and fix the valve. If you have any problem, please give feedback to our company or our agents.
5. When the inlet water contains much pollutants and solids, a filter should be in the water inlet.
6. Keep the valve from strong impact so as not to cause sluggishness or damage.

## 7.Application Demonstration



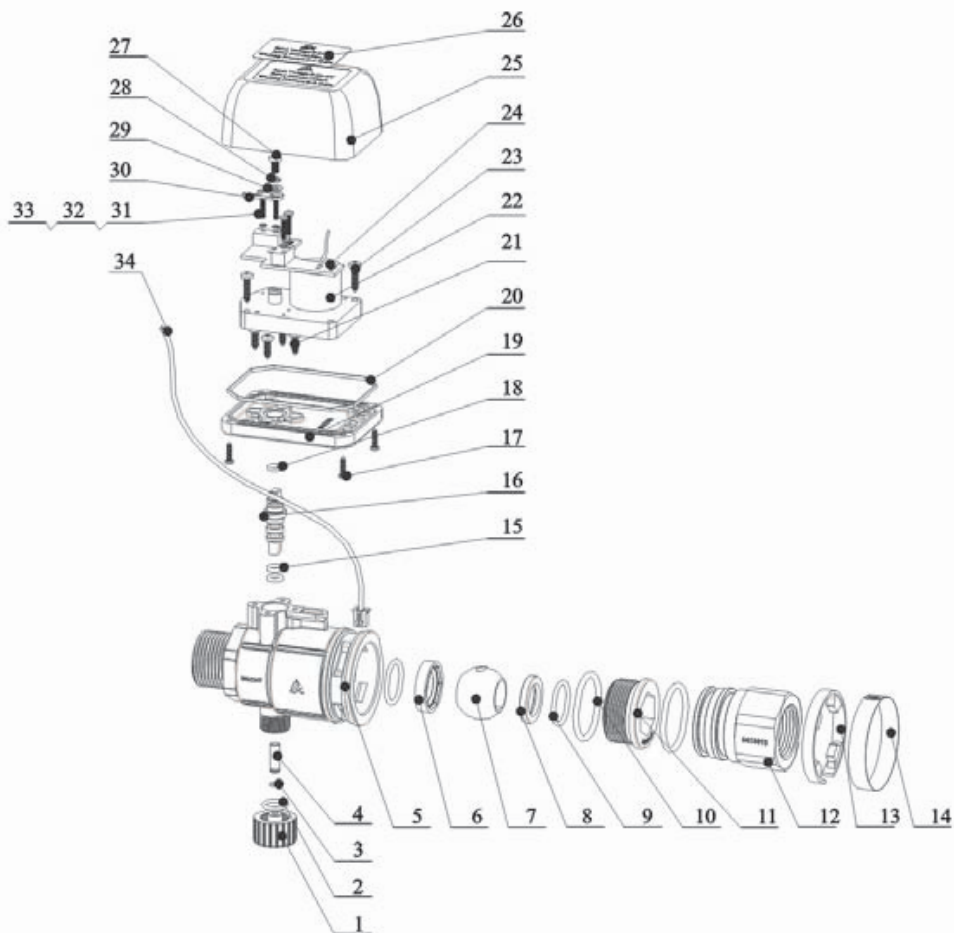
Note

- 1) Connect Red Wire to "+" Polar, Connect Black Wire to "-" Polar, Electronic Ball Valve Opens;
- 2) Connect Black Wire to "+" Polar, Connect Red Wire to "-" Polar Electronic Ball Valve closes

## 8.Valve Assembly and Component Code

### 1. F93B1, F93B2, F93B1/C,F93B3 Assembly and Component Code

#### ①Component Exploded Drawing



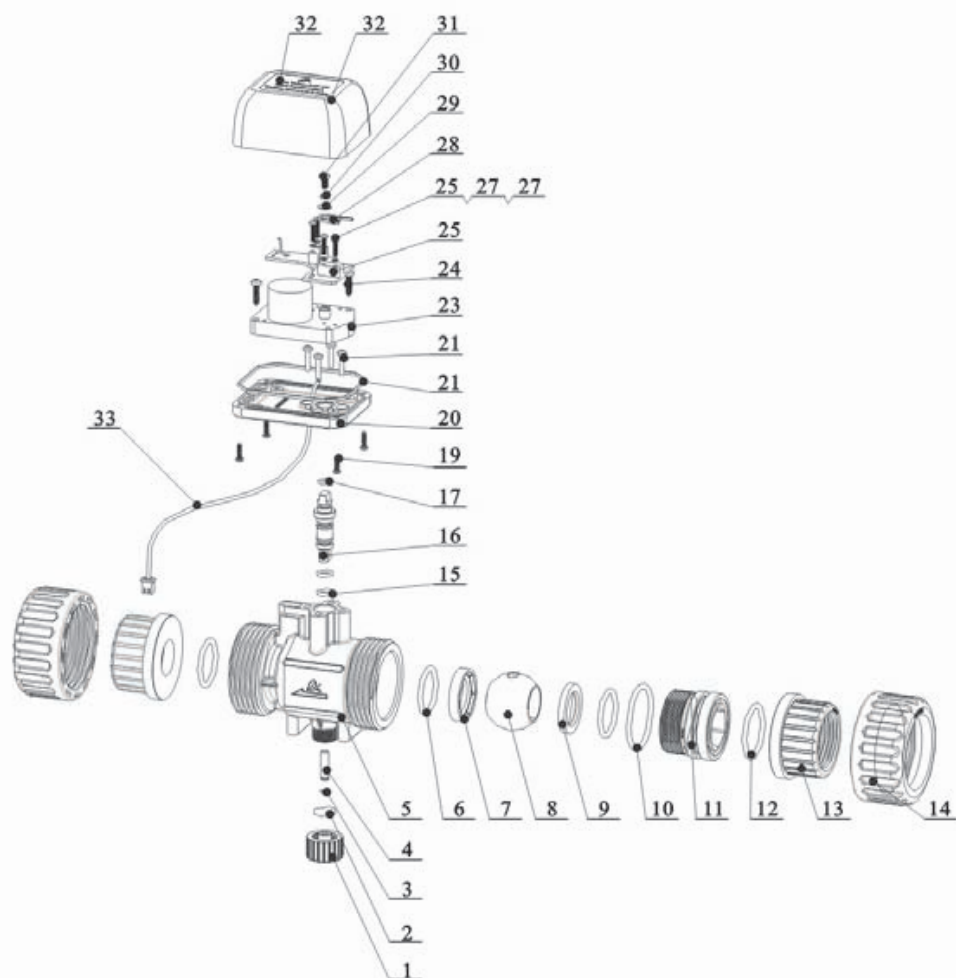
MODEL48820A 48820A/C 48820B 48820C 48825A 48825B 48825C

## ② Component Name and Code

Item	Component Name		Component Number	Piece
1	Plug		8323022	1
2	O-ring		8378173	1
3	Circlip		8994005	1
4	Axis		8206011	1
5	Valve Body		5022070	1
6	Seal Ring		8371029	1
7	Valve Core		8259002	1
8	Seal Ring		8371033	1
9	O-ring		8378172	2
10	O-ring		8378081	2
11	Cap		8945024	1
12	Connector		8458058	1
13	Clip		8270001	1
14	Ferrule		8270002	1
15	O-ring		8378174	2
16	Valve Stem	F93B1/F93B2/ F93B3	8206010	1
		F93B1/C	8206021	
17	Cross Screw		8909005	4
18	O-ring		8378003	1
19	Connecting Board		8152108	1
20	O-ring		8378200	1
21	Cross Screw		8902036	4
22	Motor	F93B1	6158046	1
		F93B1/C		
		F93B2	6158051	1
		F93B3	6158047	1
23	Cross Screw		8909031	2
24	Locating Board		6382025	1
25	Dust Cover		8005031	1
26	Label	F93B1	/	1
		F93B1/C		
		F93B2	8869018	1
		F93B3	8869020	1
27	Cross Screw		8902034	1
28	Spring Gasket		8953008	1
29	Washer		8952008	1
30	Pick		8152017	1
31	Cross Screw		8902035	4
32	Spring Washer		8953007	4
33	Washer		8952009	4
34	Power Cable		5513006	1

2. F93C1, F93C2,F93C3 Valve Assembly and Component Code

② Component Exploded Drawing



MODEL48820A 48820A/C 48820B 48820C 48825A 48825B 48825C

## ② Component Name and Code

Item	Component Name		Component Number	Piece
1	Plug		8323022	1
2	O-ring		8378173	1
3	O-ring		8378186	1
4	Axis		8206013	1
5	Valve Body		5022048	1
6	O-ring		8378185	3
7	Seal Ring		8371031	1
8	Valve Core		8259004	1
9	Seal Ring		8371032	1
10	O-ring		8378187	1
11	Cap		8945026	1
12	O-ring		8378188	1
13	Connector		8457059	2
14	Animated Nut		8947025	2
15	O-ring		8378189	2
16	Valve Stem		8206014	1
17	O-ring		8378003	1
18	Cross Screw		8909005	4
19	Connecting Board		8152108	1
20	O-ring		8378200	1
21	Cross Screw		8902036	4
22	Motor	F93C1	6158046	1
		F93C2	6158051	1
		F93C3	6158047	1
23	Cross Screw		8909023	2
24	Control Board		6382025	1
25	Cross Screw		8902035	4
26	Spring Washer		8953007	4
27	Washer		8952009	4
28	Pick		8152017	1
29	Washer		8952008	1
30	Spring Washer		8953008	1
31	Cross Screw		8902034	1
32	Dust Cover		8005031	1
33	Label	F93C1	/	/
		F93C2	8869018	1
		F93C3	8869020	1
34	Power Cable		5513006	1


## 9. Warranty Card

Dear client:

In the warranty period of one year, in case of quality problems, we will offer free after-sales service. But it couldn't be repaired free of charge under the below conditions:

1. Guarantee period expired(One year);
2. Damage resulting from using, maintenance, and keeping that are not in accordance with the instruction.
3. Damage resulting from repairing not by the appointed maintenance personnel.
4. Damage resulting from force majeure.

If the user needs our repairing service, please accurately fill in the table of Runxin Electronic Ceramic-core Warranty Card. The card is the guarantee proof of the electronic ceramic-core ball valve, to be kept by the user themselves. It cannot be retrieved if lost.

Product Name	 Electron Ceramic-core Ball Valve		
Model		Code of Valve Body	
Purchase Company Name		Tel/Cel	
Problem			
Solution			
Date of Repairing		Date of Accomplishment	Maintenance Man Signature



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