



WENZHOU RUNXIN MANUFACTURING MACHINE CO.,LTD

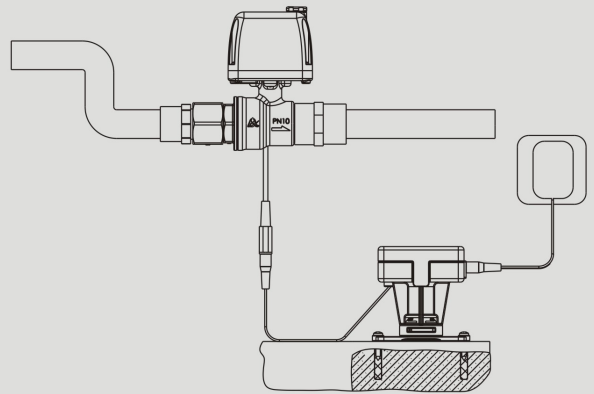
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Rev.A.2006



Automatic Shut-off Valve

(Model F104A/B/C/D)



User Manual

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

0WRX.466.572

Catalogue

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F104A/B/C/D

1. Product Overview

1.1. Main Application & Applicability

Water pipeline of residential solar heater, faucet, water dispenser would have leakage when the water pressure is too high or the connector becomes old and loose, water seepage, drop, leakage even soaking in water and flooding, even a mere leakage happened in families will make people headache. This product is researched and developed by ourselves, mainly used in leakage protection in residential, commercial and industrial drainage system.

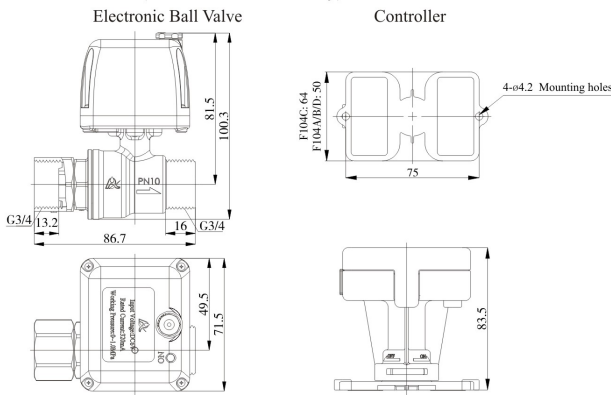
Automatic shut-off valve is consisted of controller and ceramic electronic ball valve, the controller is installed at the place where the leakage mostly happens. The absorbent cotton in controller will expand quickly to touch the switch when it gets wet by water, then the electronic ball valve will be turned off to stop water flowing in.

1.2. Product Characteristics

- It can connect to multiple detection points, as long as one point detects leakage, the electronic ball valve will be turned off at once.
- It can assemble with DN20~DN50 electronic ball valve.
- Rapid response, reliable action.
- Repeat using (it can be used continuously after replacing the absorbent cotton).
- There is still a leakage monitoring function during power failure / power off within 7 days (only F104C has this function)

1.3. Product Structure and Technical Parameters

A. Product structure size (this is for reference only)



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B. Technical Parameters

Model	Name	Power Input	Power Output	Speed of Leakage Closing	Temperature (°C)
F104A	Master controller	AC100 ~ 240V/ 50 ~ 60Hz	DC12V, 1.5A	3.5 seconds	5~50℃
F104C					
F104B	Sub-controller	F104B can only be used with F104A			
F104D		F104D can only be used with F104C			

Note:

1. The technical parameters from above table are standard configuration (match with DN20 electronic ball valve). Other specification ball valve also can be provided.
2. The matched standard power is 0.5W. The power consumption only occurs when leakage happened and the ball valve switches working position.
3. The sub-controller cannot be used alone, and it must be used with the corresponding master controller.
4. The difference between the controller F104A and F104C is that the latter has leakage monitoring function during power failure / power off.

1.4 .Installation

A. Installation notice

Before installation, please read all instructions completely. Then obtain all materials and necessary tools for installation.

B. Installation of electronic ball valve

Install the electronic ball valve to the pipeline where needs to be cut when leakage happens. Install it according to the marked flow direction. (As Figure 1 showed)

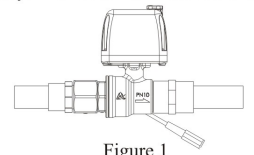


Figure 1

C. Installation of controller

The controller divides into master controller and sub controller. The master controller is installed near to electronic ball valve. It is necessary to install more sub controllers while monitoring multi-points that leakage happened easily.

The installed methods of controller can be divided into double-side glue and expansion screw.

① Installed method of double-side glue

According to the direction on Figure 2, tear off the protective layer of double-side glue, then paste it and make it fixed to the ground where the detection points most easily touch the water when leakage happens, and the place should be dry and clean.

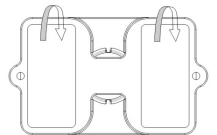
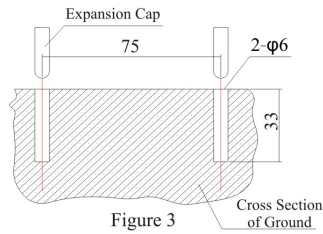


Figure 2

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- ② Installed method of expansion screw
- a. As Figure 3 showed, drill two holes (distance 75mm, DN6mm, depth 33mm) on the ground where the detection point most easily touched the water. Take two plastic expansion caps from accessory bag and put into the hole.



- b. Unscrew the valve body from controller base (As Figure 4 showed there is an arrow indication), take out the valve body upwards (As Figure 5 shows).
- c. According to direction on Figure 6, use the tapping screw in accessory bag to fix the base, then screw into the expansion cap.
- d. Reinstall the valve body to the base.

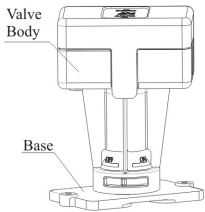


Figure 4

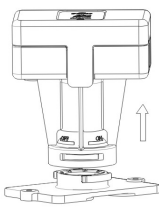


Figure 5

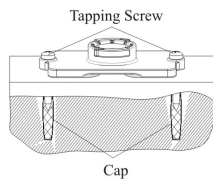


Figure 6

D. Wiring

- ①. Wiring of single detection point, as Figure 7 shows.
- a. Connect the controlling cable of ball valve on master controller with power cable of ball valve.
- b. Connect output port of power adapter with power socket of master controller. Insert the plug of power adapter to power socket. The green indicator lights on. The installation is complete. Automatic shut-off valve system is in constant monitoring status.
- ②. Wiring of multiple detection points, as Figure 8 shows. (F104B can only be used with F104A, F104D can only be used with F104C)
- a. Wiring of master controller connected with electronic ball valve is the same as the single detection point's wiring.
- b. Controllers can be connected with each other through signal cable. (If the length of signal cable is not enough, it can be lengthened.)

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- c. The plug of signal cable should be connected to the same color of socket on master or sub-controller.
- d. Plug the power adapter in, the indicator green light turns on, and the installation is complete. Automatic shut-off valve system is in constant monitoring status.

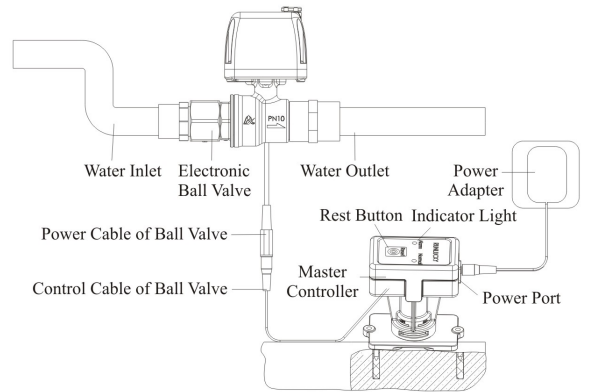


Figure 7

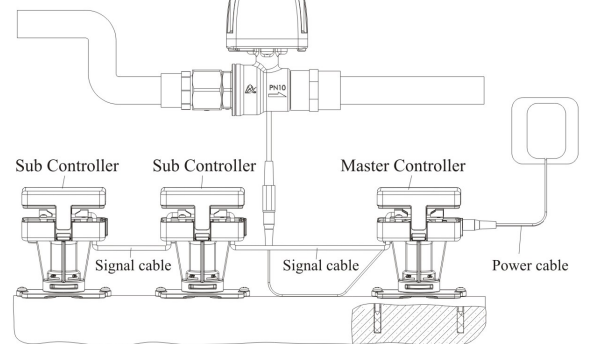


Figure 8

2. Application

- 2.1.** When automatic shut-off valve system detects any leakage, the red indicator light will turn on, and the electronic ball valve installed in pipeline will close automatically and cut off the water.
- 2.2.** After solving the leakage, please replace the absorbent cotton in the controller as Figure 9 shows.
- 2.3.** In the power-on state, press the reset button, the green indicator light turns on and the electric ball valve start to supply water, which means the troubleshooting is finished. Automatic shut-off valve system is in constant monitoring status.
- 2.4.** The F104C needs to be powered on (Farad capacitor charging) for at least 30 minutes when it is installed for the first time to use. After charging, it has leakage monitoring function during power failure / power off for 7 days (in the power off state, the ball valve and the indicator of the master controller are not displayed).

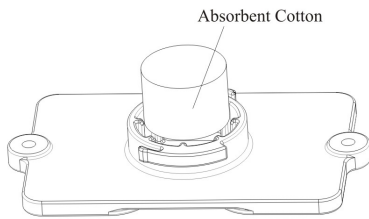



Figure 9

3. Warranty Card

Dear client:

This warranty card is the guarantee proof of RUNXIN brand Automatic shut-off valve, which is kept by client self. You could get the after-sales services from the supplier which is appointed by RUNXIN manufacturer. Please keep it properly. It couldn't be retrieved if lost. 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. Content in guarantee proof is unconfirmed with the label on the real good or be altered.
5. Damage resulting from force majeure.

Product Name	 Automatic shut-off Valve		
Model		Code of Valve Body	
Purchase Company Name		Tel/Cel.	
Problem			
Solution			
Date of Repairing		Date of Accomplishment	Maintenance Man Signature

When product needs warranty service, please contact with your direct supplier first, after got permission, then fill in the below content and send this card together with the product to the appointed suppliers or Runxin company.

End-user CompanyName		Tel/Cel.	
Purchase Company Name		Tel/Cel.	
Model		Code of Valve Body	
Problem Description			