

# Series W-F119-16T (DN15-DN32)

## FCU Electric Valve

### ◆ Application

In HVAC water systems, the FCUs are usually controlled by two-way or three-way valves. The Series W-F119 FCU Electric Two-way or Three-way Valve is designed for FCU cooling or heating pipes. Through opening and closing the pipe, the valve can effectively regulate the room temperature. The valve's actuator has spring auto-reset function. If the actuator suddenly loses power, the spring will help the actuator to reset and shut down automatically.

### ◆ Features

- Forged brass valve body
- On/off control
- Both normally closed two-way structure and diverting three-way structure are available
- Fully enclosed one-way hysteresis synchronous motor drive with water-proof function
- Spring auto-reset function enables automatic shutoff when an emergent power loss happens
- Removable actuator for convenient repair and maintenance
- Low power consumption, low noise and high reliability

### ◆ Operating Principles

The valve is normally closed when receiving no signals. If the room thermostat emits an opening signal to open the valve, cold / hot water will go through the FCUs to provide the room with cooling / heating capacity. When the room temperature reaches the set temperature, the room thermostat will send a closing signal to the actuator to close the valve, so that the cold / hot water in the pipe will not influence the room temperature any more. By opening and closing the valve, the room temperature is kept within the setting range.

### ◆ Technical Specification

<b>Dimensions:</b>	DN15-DN32
<b>Working Temperature:</b>	2~94°C
<b>Working Pressure:</b>	PN16
<b>Fluid Medium:</b>	Water / Ethylene Glycol
<b>Connection:</b>	Threaded Connection
<b>Connection Standard:</b>	GB/T 7306.1-2000
<b>Ambient Temperature:</b>	0~60°C
<b>IP Grade:</b>	IP20
<b>Working Voltage:</b>	220VAC 50/60Hz
<b>Power:</b>	6W
<b>Speed:</b>	4r/min
<b>Actuating Time:</b>	Full Open: 11s Full Close: 5s
<b>Control Characteristic:</b>	On / off Control
<b>Connection of Valve and Actuator:</b>	Threaded
<b>Materials:</b>	
- Valve Body:	Brass HPb59-1
- Valve Stem:	Stainless Steel AISI302
- Sealing:	NBR
- Actuator:	Reinforced Glass Fiber Nylon Engineering Plastic



### ◆ Technical Parameters

#### Product Type:

Type	Structure	Size	Kv	Shutoff Pressure
W-F119215-16T	Two-way Valve	DN15	2.0	300KPa
W-F119220-16T		DN20	2.8	150KPa
W-F119225-16T		DN25	4.6	60KPa
W-F119232-16T		DN32	10.0	100KPa
W-F119315-16T	Diverting Three-way Valve	DN15	2.0	300KPa
W-F119320-16T		DN20	2.8	150KPa
W-F119325-16T		DN25	4.6	60KPa
W-F119332-16T		DN32	10.0	100KPa

#### Coding Rules:

W	WATTS
F	FCU Electric Valve
11	Linear Motion
9	Electric
Category	
2: Two-way	3: Three-way
Size	
15-DN15	20-DN20
25-DN25	32-DN32
Pressure Class	PN16
Body Material	Brass

### ◆ Installation

When the valve is installed in a horizontal pipe, the included angle between the installation plane and the vertical plane should not be greater than  $85^\circ$ , as shown in Figure 1. When the valve is installed in vertical pipe, the enclosure should prevent dripping water from penetrating into the motor. Move the manual lever slowly along the arrow head direction until it is locked by the gap. This action sets the valve normally opened. The manual lever will switch to "auto" status whenever the electric current first flows through the valve.

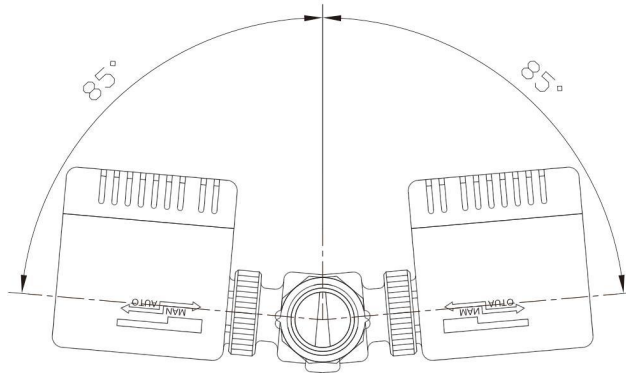
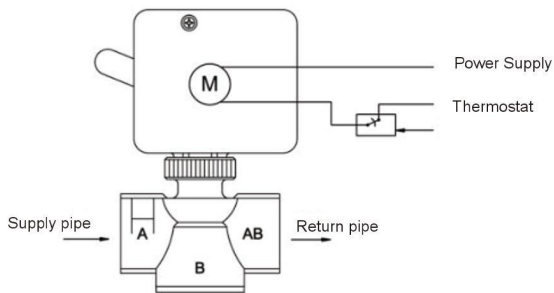
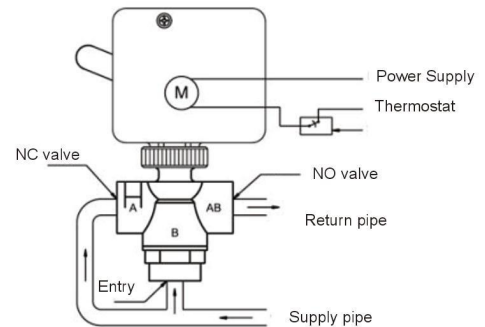


Figure 1: Installation Position

Normally closed two-way valve and mixed three-way valve must be installed in accordance with Figure 2 and Figure 3. As for tall buildings, pressure-releasing valves should be applied to the bottom branch pipes. On installing the valve body, attention needs to be paid to the arrow direction on the valve body.



Cooling/heating fan coil unit  
Figure 2: two-way valve



Cooling/heating fan coil unit  
Figure 3: three-way valve

### Installation Dimensions:

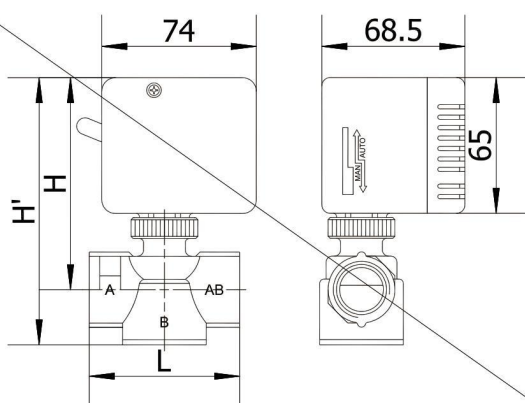


Figure 4: Installation Dimensions

Size	L(mm)	H(mm)	H'(mm)
DN15 Two-way	66	102	125
DN15 Three-way	66	102	142
DN20 Two-way	72	102	128
DN20 Three-way	72	102	147
DN25 Two-way	89	102	133
DN25 Three-way	89	102	154
DN32 Two-way	90	102	146
DN32 Three-way	90	102	169