

EFQS-4 cable float switch

Chinese specification priority sheet and complete English installation manual

Configuration to use for the current Chinese listing

The current Chinese technical table differs from the attached English manual. Keep the ordered configuration’s ratings together and check the instrument marking before installation.

Parameter	Chinese technical-table value
Resistive contact rating	4A at 220V
Rated insulation voltage Ui	250V
Thermal current Ith	10A
Water temperature	0-65°C
Control differential	Greater than 0.4m
Conductor area	0.85mm²
Cable length	1-40m, customizable
Protection	IP65
Mechanical life	More than 10,000 cycles
Short-circuit protection fuse	RLI-10A

Construction and operation

The EFQS-4 uses an ABS double-shell float, a PVC cable and a ball-actuated microswitch. Black is common; blue is the filling contact, closed at low level; brown is the drainage contact, closed at high level. Isolate power and fully insulate the unused conductor. Keep the float free to move and check material compatibility with the liquid.

Edition differences

The 3×0.75mm² manual configuration is rated 125/250VAC, 4A, IP68 and at least 10,000 operations. The 0.85mm² configuration uses a 220V resistive rating, IP65 and more than 10,000 operations. Use the rating of the delivered cable and enclosure configuration; no continuous-immersion depth or duration is specified.

The original English manual is reproduced in full, including installation, fill/drain contact diagrams and eight precautions. Its low-voltage recommendation is visually readable as ≤36V; text extraction corrupts those digits. The counterweight instruction is readable as a free cable length approximately 0.7 times the desired high/low level difference.

Float Switch

Installation Manual



• INTRODUCTION

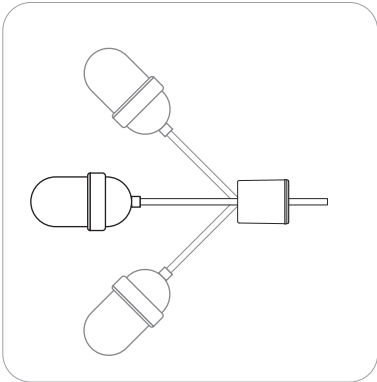
The float switch serves as a key component in liquid level control, widely applied across industrial, domestic, and various other area. From monitoring liquid levels in factory storage tanks and controlling water levels in household reservoirs to drainage systems in wastewater treatment plants, its presence is essential. This float switch combines cutting-edge technology with critical craftsmanship, offering high reliability, easy installation, and strong adaptability. It delivers precise and stable solutions for diverse liquid level control requirements.

• PRINCIPLES

This float switch operates on the basical physical principles of gravity and flotage. A highly sensitive microswitch is housed within the float, connected to an external control circuit via a signal cable. As the liquid level changes, the float ascends or descends, then trigger the microswitch contacts (ON/OFF) through an internal mechanical ball mechanism. This method ensures accurate response of the switch during liquid level fluctuations, guaranteeing precision and stability in level control.

• PRODUCT FEATURES

- ① **PRECISE STRUCTURE**
Integral potting and sealing process, guarantee sealability.
- ② **RELIABLE MATERIALS**
ABS housing and PVC cable.
- ③ **EASY INSTALLATION**
Easy to use after securing the cables.



• TECHNICAL SPECIFICATION

NOTE: Design and specifications are subject to change without notice.

Voltage: 125/250VAC	Rated Current: 4A
Wire Length: 1~40m(Customizable)	Wire Diameter: 0.75mm ² ×3
Mechanical Life: ≥10000 times	Operation Temperature: 0~65°C
Degree of Protection: IP68	Material: Housing: ABS Wiring: PVC + Cuprum

• INSTALLATION

Before installation, please disconnect the power supply and confirm that the model, specifications, operating voltage and load current of the float switch are consistent with the actual requirements.

1. Weight Fixation:

Thread the cable through the sunken hole at the bottom of the weight. The cable length between the float and the weight should be approximately 0.7 times the length of the high-low liquid level difference.

2. Wiring

Once weight fixed, connect the float switch to the circuit. Selecting a wiring method between Filling type (black and blue) and Empty type (black and brown) according to the actual requirements. **Insulate any unused wires completely with electrical tape.** Pay special attention to waterproofing the cable connection points to prevent condensation ingress, which could cause switch malfunction.

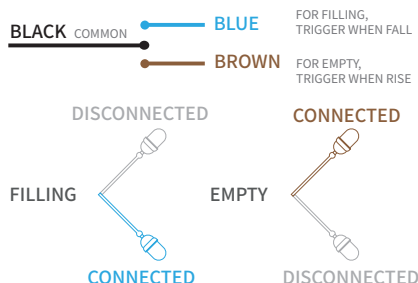
• USED

① FILLING TYPE WIRING

- ① Liquid rises, the float ascends, and the switch OFF.
- ② Liquid falls, the float descends, and the switch ON.

② EMPTY TYPE WIRING

- ① Liquid rises, the float ascends, and the switch ON.
- ② Liquid falls, the float descends, and the switch OFF.



• PRECAUTION

- ① **For safety, use a safety voltage ($\leq 36V$) with this float switch is strongly recommended.**
- ② Inspect the product condition regularly, and stop to use if the housing or cable is damaged. Power must be disconnected before installation and maintenance.
- ③ DO NOT puncture, stab, or cut the cable with sharp or pointed items, as this could damage the insulation and cause electrical leakage.
- ④ DO NOT apply force to the sealed edges of the housing, as this may compromise the product's watertight integrity.
- ⑤ This product is designed for use ONLY in clean water or other weakly corrosive liquids. Strong acids, strong alkalis, or organic solvents will damage the product.
- ⑥ Use an AC contactor or relay in conjunction with the float switch if the load power exceeds the rated power.
- ⑦ This product must never be installed by persons with disabilities or individuals lacking relevant knowledge (including children).
- ⑧ Keep the product and its packaging out of reach of children.

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