

# Water flow switch manual

HFS-15 / HFS-20 / HFS-25 | Reference VC-HFS-15/20/25-200414

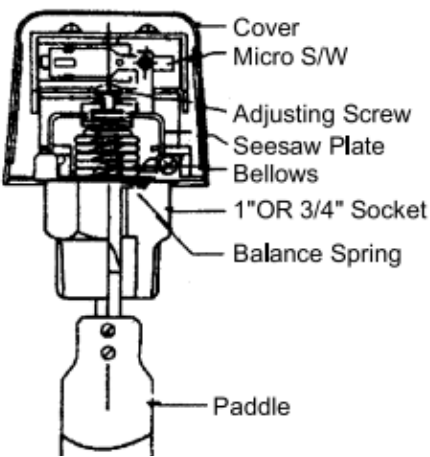
## Application

The paddle-operated switch detects liquid flow in pipelines carrying water, ethylene glycol or other liquids compatible with the brass or phosphor-bronze wetted components. The standard application excludes hazardous fluids. Select wetted materials suitable for the liquid.

## Specifications

| Parameter               | Specification                                                        |
|-------------------------|----------------------------------------------------------------------|
| Mounting connections    | HFS-15: 1/2in; HFS-20: 3/4in; HFS-25: 1in                            |
| Control type            | Paddle / target                                                      |
| Maximum liquid pressure | 17.5kgf/cm <sup>2</sup> (1715kPa)                                    |
| Ambient temperature     | 0°C to 60°C                                                          |
| Liquid temperature      | −10°C to 100°C, provided the fluid does not freeze                   |
| Microswitch             | Single-pole double-throw (SPDT)                                      |
| Electrical rating       | 220VAC, 15A                                                          |
| Connection              | Screw terminals                                                      |
| Materials               | Brass or stainless steel body; stainless steel paddle; plastic cover |
| Cover cable entry       | 1/2in conduit opening in the English reference sheet                 |

## Component identification



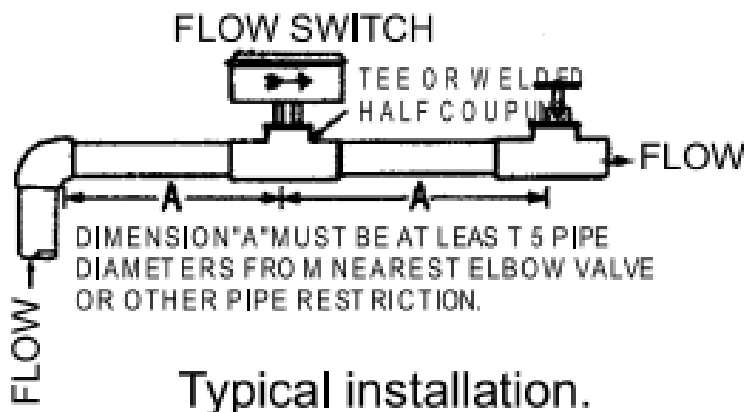
# Installation

## Location and orientation

Check the switch before installation. The packaging should be intact and the switch free of damage or deformation. Contact the manufacturer if defects are found.

Install in a horizontal pipe or a vertical pipe with upward flow. Do not install in downward flow. Account for the effect of gravity in a vertical upward-flow installation.

Use a straight section with at least five pipe diameters on each side of the switch, clear of the nearest elbow, valve or other restriction. Align the arrow on the switch body with the actual flow direction. Position the terminals so they remain accessible for wiring.



## Installation and wiring precautions

Do not strike the switch base plate with a wrench. Deformation can prevent correct operation.

Disconnect the supply before wiring or commissioning to avoid electric shock and equipment damage.

During wiring, adjust only the microswitch terminal screws and the designated grounding screw. Do not disturb other screws. Avoid excessive force on the microswitch terminals, which can move the switch and cause failure.

Use the dedicated grounding screw. Do not remove or reposition mounting screws, as this can deform the controller.

Keep the paddle clear of the pipe wall and other restrictions. Contact can prevent the switch from returning to its normal position.

# Adjustment and functional checks

## Set and verify the operating point

1. Remove the switch cover.
2. The factory setting is the minimum flow setting. To increase the operating flow, turn the range-adjustment screw counterclockwise. Turn it clockwise for a lower flow setting.
3. Move the paddle to check that the microswitch operates correctly. Excessive clockwise adjustment can cause the flow switch to malfunction.
4. After installation, operate the switch lever several times. If there is no click when the lever returns, turn the range-adjustment screw counterclockwise until a return click is heard.
5. Do not change paint-sealed adjustment screws. They are intended only for factory adjustment.
6. Observe three operating cycles to verify that the switch and connected system operate correctly. Refit the cover promptly after checking.

## Temperature and model clarification

The mounting thread identifies HFS-15, HFS-20 or HFS-25; it is not the same as the diameter of the main flow pipe. Apply the manual's liquid-temperature range of  $-10^{\circ}\text{C}$  to  $100^{\circ}\text{C}$  under nonfreezing conditions.

## Original manufacturer and authorization information

The Chinese sheet identifies Yueqing ELECALL Electric Co., Ltd. as the owner of the ELECALL trademarks and the authorizing company. It identifies Yueqing Liangzi Electric Co., Ltd. as manufacturer.

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This edition translates the complete Chinese instructions and incorporates the compatible supplementary details from the accompanying English reference sheet. The original English component and installation drawings are retained.