

NBR float switch with Hirschmann connector

User manual | Complete English translation

1. Product overview

The float switch is a simple, convenient liquid-level sensing device. Its magnetic float moves with the liquid and actuates a reed switch inside the stainless steel stem, providing level indication or control.

2. Features

- Simple construction:** A float, connecting stem and reed switch make installation and maintenance straightforward.
- Reliability:** The stainless steel stem offers resistance to corrosion, wear and heat. Refer to the particular product specification for the operating limits.
- Level sensing:** The switch detects liquid-level changes for control applications; no numerical accuracy is specified.
- Applications:** Water, wastewater, oil and other compatible liquids, provided the float remains free to move.



Single float	Double float
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Selected product configurations are shown. Custom configurations are available.

3. Complete manual specifications

Parameter	1A1	2A1
Operating voltage	≤100VDC	≤250VDC / ≤260VAC
Operating current	≤0.5ADC	≤1.5ADC / ≤1.1AAC
Stem length	0.045–2m, customizable	0.045–2m, customizable
Operating temperature	–20°C to 120°C	–20°C to 120°C
Protection options	IP65 ordinary / IP68 waterproof version	IP65 ordinary / IP68 waterproof version

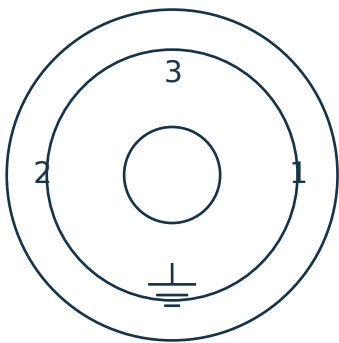
The ordered construction determines the protection rating. See the separate product-page limits on page 3 before selecting a receiving circuit.

Installation and connector wiring

4. Installation

- 1. Before installation, confirm the model, specifications, operating voltage and load current meet the application requirements.
- 2. Install correctly and make sure the float can move freely.
- 3. Connect the signal wires correctly and avoid short circuits.
- 4. Commission and test the switch after installation to confirm normal operation.

5. Connector terminals



Connector face as shown in the manual

1 and 2: level-switch signal terminals

3: no assignment specified

Earth-marked position: no assignment specified

Terminal	Definition in the Chinese manual
1	Level-switch connection terminal
2	Level-switch connection terminal
3	/ — no assignment specified
Earth-marked position	/ — no assignment specified

This pin table defines only a two-terminal switching connection. It does not define separate upper and lower circuits for every double-float configuration. Obtain the exact supplied assembly’s circuit and terminal assignment before wiring a dual-point installation. The unassigned earth-marked position is not established as either a signal return or a protective-earth connection by this table.

6. Contact operation

Arrangement	Level rises	Level falls
Below-closed: default	The float leaves the reed’s set position and the contact opens.	The float returns to the reed’s set position and the contact closes.
Above-closed	The float returns to the reed’s set position and the contact closes.	The float leaves the reed’s set position and the contact opens.

Reversing the float changes its closed-state orientation. Check continuity at both positions before commissioning.

Service precautions and rating notes

7. Precautions

1. Avoid impact and compression during installation and use to prevent damage to internal components.
2. Install away from external magnetic fields that could disturb normal operation.
3. Check operation regularly. Repair or replace the switch promptly if any abnormality is found.
4. Disconnect the supply before cleaning or maintaining the equipment.

8. Product-page specifications

Parameter	1A1	2A1
Maximum contact rating	10VA	50VA
Maximum switching voltage	100VAC/DC	220VAC/DC
Maximum switching current	0.5A	1.5A
Breakdown-voltage reference	110VAC/DC	300VAC/DC
Maximum contact resistance	100mΩ	100mΩ
Webpage temperature range	–30°C to 120°C	–30°C to 120°C
Float / stem material	NBR / 304 or 316 stainless steel	NBR / 304 or 316 stainless steel

Keep the webpage and manual values distinct. For circuit selection, use the lower 220V webpage limit for 2A1 and the manual's 1.1A AC-current limit; 1.5A applies to DC. Respect contact power at the same time. Use –20°C to 120°C unless the ordered construction confirms the webpage's –30°C lower limit. Breakdown voltage is not an operating voltage.

The threaded Hirschmann connector has a locking screw and can be removed for maintenance. A small receiving relay is required for alarm or valve control; pump control additionally requires a contactor matched to the load. The reed contact must not directly drive these loads. Confirm the liquid, temperature, pressure, mounting direction, stem length, thread, cable and switching logic before ordering.

The low-density product specifies liquid density $\geq 0.65\text{g/cm}^3$, with customization available. Its closed-cell NBR float has a reference density of 0.6g/cm^3 . Those are different quantities. The metal stem may be 304 or 316 stainless steel; the webpage's generic all-stainless-float wording does not describe the pictured NBR construction.

9. Manufacturer and complete imprint

Trademark owner and manufacturer: Yueqing ELECALL Electric Co., Ltd.
 Address: No. 246 Weishi Road, Yueqing Economic Development Zone, Wenzhou, Zhejiang, China.
 Telephone: 4006-111-323.
 Original slogan: "ELECALL, making high-quality products." / "DO BETTER FOR EVER."

Both pages of the Chinese ES Hirschmann-version manual supplied with the NBR-float product are translated in full. The separate English two-level relay circuit edition explains the external self-holding control example. Its relay terminal numbers do not assign the connector terminals of every double-float assembly.