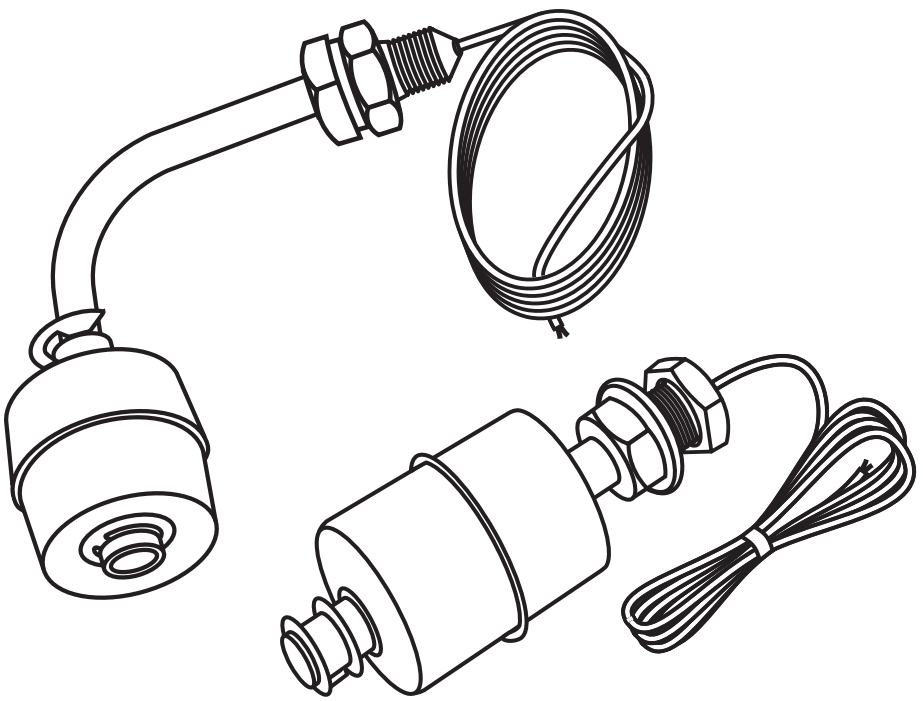

TECHNICAL MANUAL

Float level sensor RLF

1 DESCRIPTION

Float level sensor RLF is designed to indicate the level of liquids.
The device is used as a level sensor in automated water/liquid tank fill/drain systems.
Float level sensors RLF are universal components, intended for applications where other types of level sensors are not suitable due to process requirements or economic constraints.
Float level sensors can operate in water, solutions, petroleum products and other liquid mediums non-corrosive to the device housing and materials.
Float level sensors RLF comply with IEC 60335-1 requirements.

2 TECHNICAL DATA

Table 1 – Electrical characteristics

Characteristics	**Value**
Maximum switching voltage, V	DC 180 AC 230
Maximum switching current, A	DC 0,7 AC 0,5
Maximum switching power, W	50
Signal type	Normally open (NO)

Table 2 – Design

Characteristics	**Value**
Stem, float, and retainer material	Stainless steel AISI 304
Gasket material	Rubber
Conductor cross-section, mm^2	0,35
Cable length, m	0,3
Degree of protection	IP68

Table 3 – Operation Conditions

Characteristics	**Value**
Medium temperature, °C	-25...+120
Medium pressure, MPa	Max. 6
Medium density, g/cm^3	Min 0,7

3 TYPE CODE

RLF-X-NO

X – design:
1 – horizontal, internally mounted
2 – vertical, internally mounted

4 OVERALL AND INSTALLATION DIMENSIONS

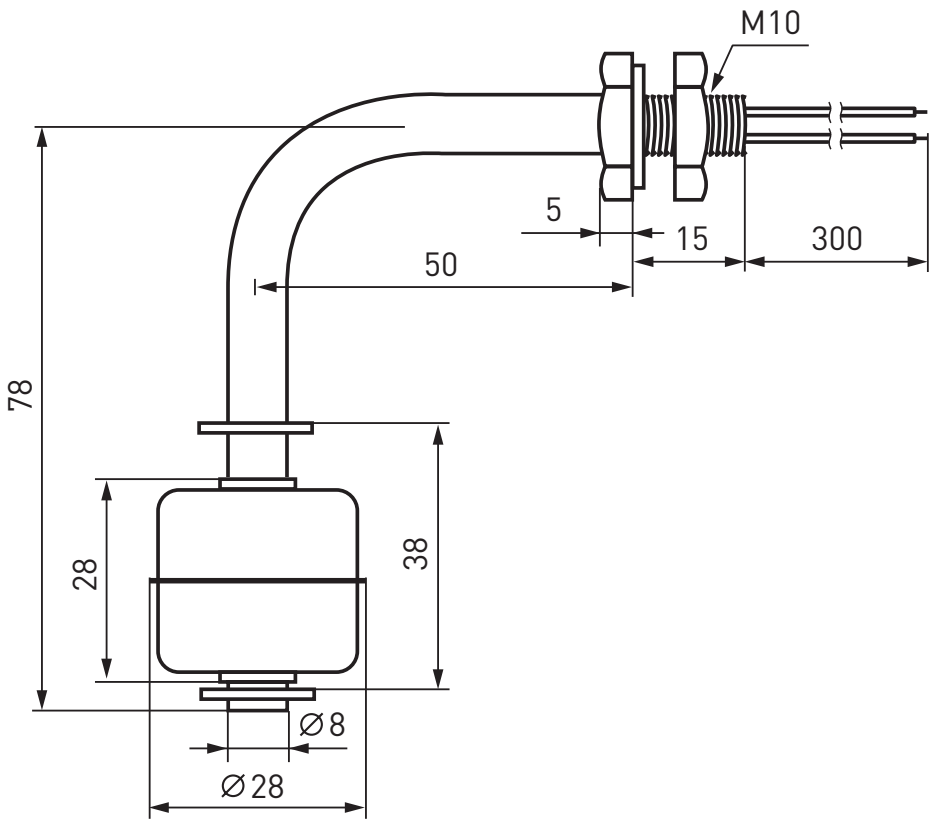

Fig. 1 – Float level sensor RLF-1 overall and installation dimensions

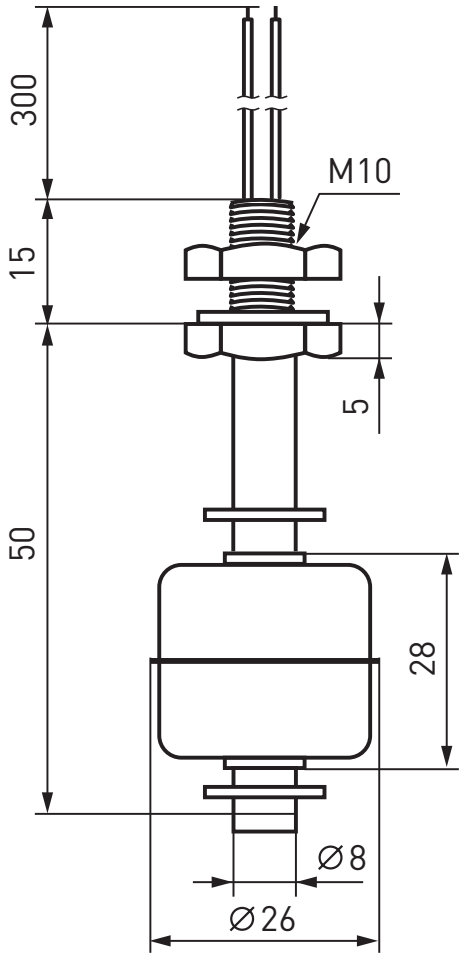

Fig. 2 – Float level sensor RLF-2 overall and installation dimensions

5 INSTALLATION

Float level sensor RLF is mounted using the threaded stem, gasket ring, and threaded nut. Sensor mounting location must conform to the dimensional drawings in Section 4 (Overall and Installation Dimensions). For best operation, the section of the sensor stem used for float movement should be installed vertically. Maximum stem deviation from vertical is 40°.

We recommend using wires with conductor cross-section of no more than 1,5 mm^2 to connect the float level sensor to electric circuits.

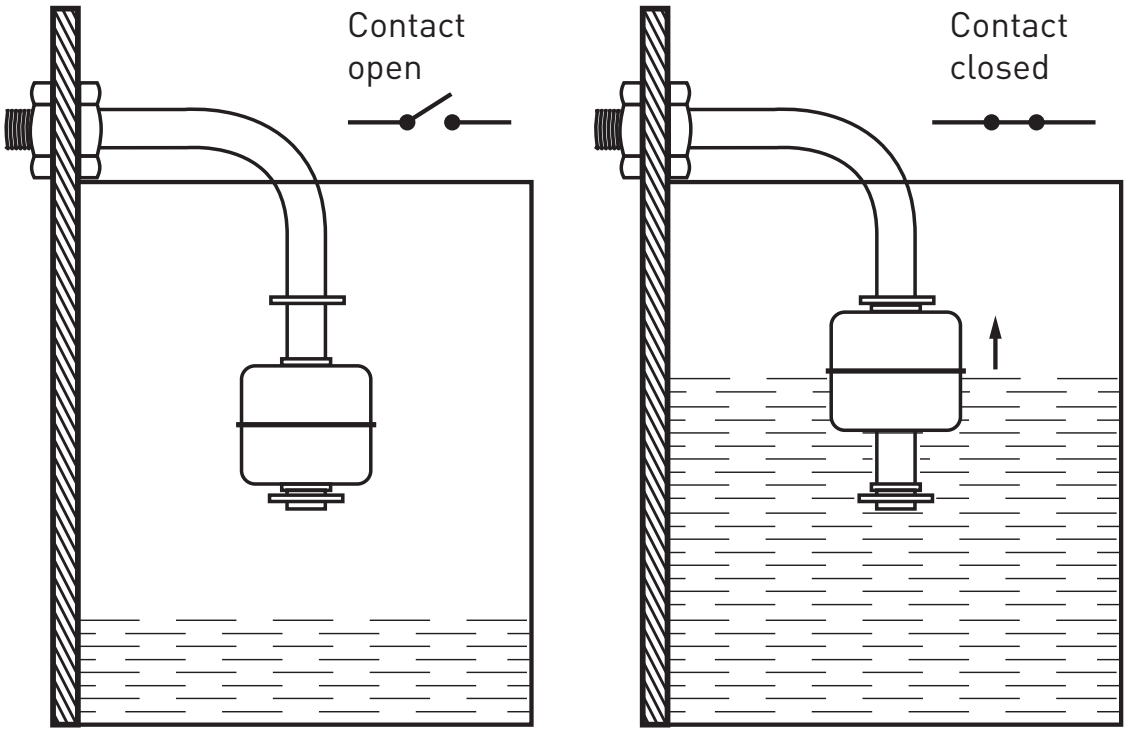

Fig. 3 –Float level sensor RLF principle of operation

6 OPERATION

The sensor includes a stem and a float. The float moves freely along the stem. The magnet, built into the float, is capable of actuating the reed switch located in the stem.

As the float moves up with the level of liquid, the magnet closes the reed switch, which, in turn, completes the signaling or control circuit.

7 DELIVERY SCOPE

Float level sensor RLF is supplied in an individual package. For all available documentation, scan the QR-code on the insert or on the inside of the package.

8 SAFETY REQUIREMENTS

Do not operate float level sensors with visible mechanical damage.

Float level sensors shall be operated and serviced only by qualified personnel.

Failure to follow the guidelines herein may result in severe injury and damage to the equipment.

9 STORAGE AND TRANSPORTATION

Float level sensors can be transported by any means of enclosed transport that protects the packaged goods from mechanical impact and weather exposure.

Float level sensors shall be stored indoors in their original packaging at the ambient temperatures from -25°C to +55°C.

10 DISPOSAL

Life-expired and failed float level sensors shall be disposed of in compliance with the effective national and local laws and regulations. To dispose of the product, send it to an authorized company for recycling in compliance with the effective national and local laws and regulations.

11 MANUFACTURER'S WARRANTY

The manufacturer guarantees the compliance of float level sensors with the applicable standards, regulations and specifications, subject to following any and all operation, transportation and storage requirements.

Warranty period: 3 years from the date of sale.

Shelf life: 3 years from the date of manufacture specified on the product package or housing.

Service life: 10 years.

Manufacturer: for information, refer to the product package.
Importer and EKF trademark service representative: EKF ELECTRICAL SOLUTION – FZCO, Dubai Silicon Oasis, DDP, Building A2, Dubai, United Arab Emirates.
Importer and EKF trademark service representative on the territory of the Russian Federation:
ООО «Electroresheniya», Otradnaya st., 2b bld. 9, 5th floor, 127273, Moscow, Russia. Tel.: +7 (495) 788-88-15.
Importer and EKF trademark service representative on the territory of the Republic of Kazakhstan:
ТОО «Energoresheniya Kazakhstan», Kazakhstan, Almaty, Bostandyk district, Turgut Ozal st., 247, apt 4.

12 CERTIFICATE OF ACCEPTANCE

Float level sensors RLF have been approved for operation.

Date of manufacture:
for information, refer to the product package.

Quality control stamp

ekfgroup.com

v2