

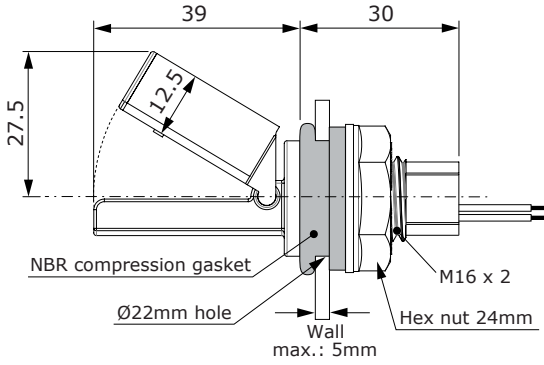
External Side Mounting

With NBR Compression Gasket for Ø22mm Hole



Technical Specifications	LF122E-40
Material	POM
Operating temperature range	-10°C to 100°C
Maximum operating pressure	2bar
Color	Orange
Liquid minimum density (SG)	0.85
Output connection	40cm cable
Maximum switching voltage	220Vac
Maximum switching capacity	20W/VA

- External mounting on tank with NBR compression gasket through Ø22mm hole;
- Recommended NC mounting (float upwards, as shown in the picture);
- Installation in closed tanks;
- Detects the presence of liquids in pipes and tanks, including automotive tanks.



Constructive Materials

POM Polyacetal: Ideal for water and lubricants.
Not suitable for fuel.

Level Switches

Manual: Model for Radiator



IMPORTANT !
YOU MUST CHECK BEFORE INSTALLATION



Tank dimensions

Check the dimensions of the Sensor and internal space of the tank **before** drilling it



Ø22mm hole

For perfect sealing, make a 22mm diameter hole and remove any burrs



Float

Install the Sensor with the float upwards (check images below)



The **LF122E-40 Level Switch** can be used on radiator tanks of any brand or car model, provided that the above guidelines are followed.

Questions? Contact us **BEFORE** you install:

sensor@icossensors.com | +55 (15) 3032.9190

On datasheets.icossensors.com available technical specifications

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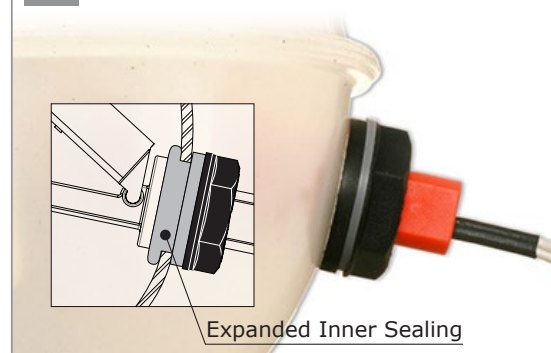
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Mounting Instructions of Radiator Coolant Level Switch for Automotive Tanks

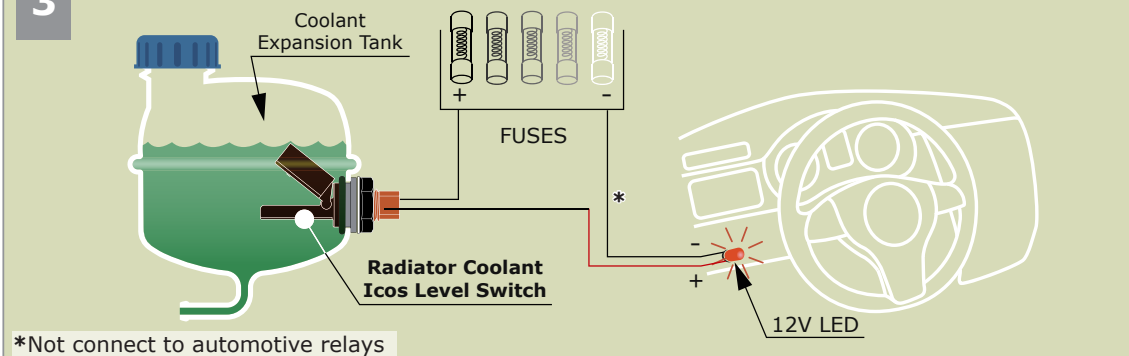
- 1 Make a hole of Ø22mm (+0,2) below the bottom half of the tank.



- 2 Insert the Level Switch with the float upwards and screw until it's totally sealed.



- 3 Connect the Level Switch in series with a fuse and a 12V LED installed in the car panel.



Dimensions in millimeters

On levelsensor.icossensors.com check models and prices of Level Switches

Flow Switches & Level Switches for liquids

Make it Easy

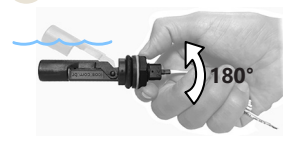
Operation

NO Normally Open

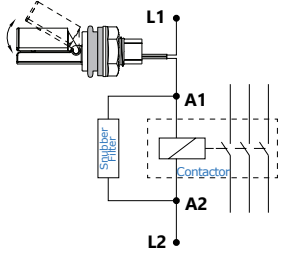


NO or NC rotating the sensor

NC Normally Closed



Typical connection to contactor



Switch **NO/NC - SPST**
Output **Contact ON/OFF**
Enclosure Rating **IP66**

! Never connect the sensor to a motor, pump, lamp or any other load over 20W. Always use a contactor or relay.

The sensors work in all voltage and current ranges displayed in the table below:

Operating Voltage	Max. Switching Power	Max. Switching Current	Peak Current
110Vac	20VA	0.2A	0.5A @20ms
220Vac	20VA	0.1A	0.5A @20ms
5Vdc	2.5W	0.5A	1A @20ms
12Vdc	5W	0.5A	1A @20ms
24Vdc	10W	0.5A	1A @20ms

24Vac: NOT recommended

Term of Warranty

For installations according to this guide:

01 (one) year warranty - **Incorrect installation cancels the warranty.** All sensors have been tested and approved during the manufacture process.

Chemical products require tests by the customer to verify compatibility with the constructive material of the sensor.

Liquids with ferrous particles require technical analysis: the sensor has magnetic component inside.

On datasheets.icossensors.com available technical specifications

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Electrical contact of sensors - Attention to install

Reed Switch 20W/VA: Protect the electrical contact of your sensor



Reed Switches are hermetically sealed contacts actuated by a magnetic field.

The life expectancy of a reed switch refers to a kind of load to be used. Reed Switches of the highest reliability are applied in our sensors, and their life expectancy can reach above two million operations. However, when they are switching lamps, inductive or capacitive loads, this number may decrease.

Switching Power

It is important to consider that the power specified by an electrical load is often referred to the permanent working state.

For higher power, use an auxiliary relay or contactor as recommended below.

Siemens 3RT1015 Contactor

Initial: 31.7VA
Rated: 5.1VA

Weg CW07 Mini Contactor*

Initial: 19.3VA
Rated: 5.5VA

Schneider CA2KN Contactor

Initial: 30VA
Rated: 4.5VA

Note: Reed Switches have reached over one million operations in tests with contactor and **K8*** snubber filter.

LF122E-40 Level Switch



WARNING!

Recommendations for installation of ICOS Level Sensors

For automotive use, refer to the back of this manual.

Connection with cable length 20 to 40 meters:

Resistor **22R 5W** in series is required

For distances longer than 40m, use 24Vdc voltage (without the resistor)



Connection with:

- Timing Relay
- Frequency Inverter

Resistor **220R 5W** in series is required



Connection with Contactor 24Vdc

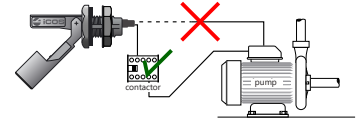
Filtro KD is required



Connection with Contactor

Initial Power Rated Power

Should be less than **20W**



*For sale on accessories.icossensors.com

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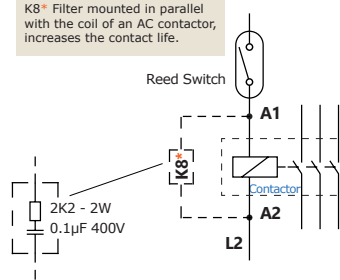
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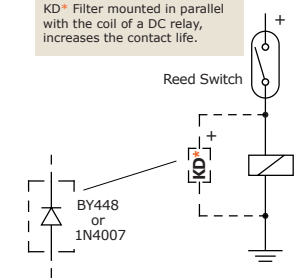
PROTECTION PROCEDURES BELOW DESCRIBED CAN IMPROVE THE REED SWITCH PERFORMANCE

- Switching inductive loads

K8* Filter mounted in parallel with the coil of an AC contactor, increases the contact life.

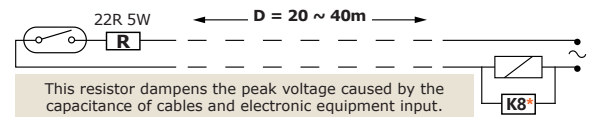


KD* Filter mounted in parallel with the coil of a DC relay, increases the contact life.



? Risk of failure (welding of the Reed Switch Contact) due to CAPACITANCE, which can occur depending on the distance and cable used in the connection to the contactor.

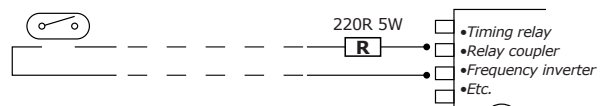
- Connecting the sensor to a contactor in long distances, use resistor:



This resistor dampens the peak voltage caused by the capacitance of cables and electronic equipment input.

Note: For distances **greater than 40m**, use 24Vdc voltage.

- Connecting the sensor to an electronic equipment:



*On accessories.icossensors.com check models and prices of Filters and Mini Contactor