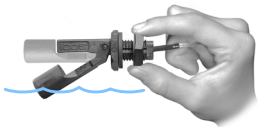


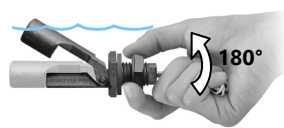
## Operation

**NO** Normally Open

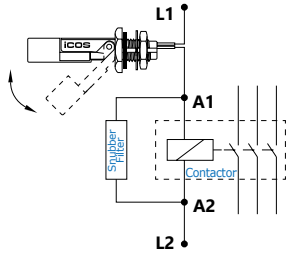


**NO or NC** rotating the sensor

**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.icos.us](https://datasheets.icos.us) available technical specifications

**+55 (15) 3032.9190**

## 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.

\*On [accessories.icos.us](https://accessories.icos.us) check models and prices of Filters and Mini Contactor

# Level Switches

Manual: Models for Internal Mounting



**IMPORTANT!**  
**YOU MUST CHECK BEFORE INSTALLATION**

**Connection with cable length 20 to 40 meters:**

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

**Connection with:**  
- Timing Relay  
- Frequency Inverter

For installation with Relay Coupler, use 4K7 10W resistor

**Connection with Contactor 24Vdc**

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



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



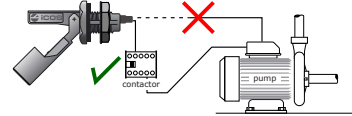
**KD Filter** is required



**Connection with Contactor**

**Initial Power Rated Power**

Should be less than **20W**



\*For sale on [accessories.icos.us](https://accessories.icos.us)

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

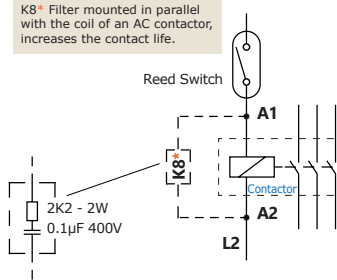
**+55 (15) 3032.9190**

[levelsensor.icos.us](https://levelsensor.icos.us) | [datasheets.icos.us](https://datasheets.icos.us) | [videos.icos.us](https://videos.icos.us)

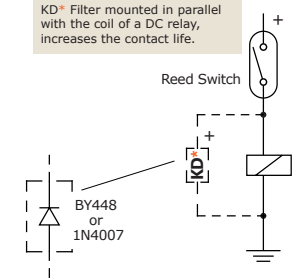
## PROTECTION PROCEDURES BELOW DESCRIBED CAN IMPROVE THE REED SWITCH PERFORMANCE

• Switching inductive loads

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

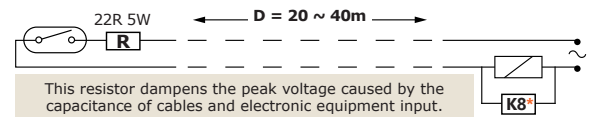


**KD\*** Filter mounted in parallel with the coil of a DC relay, increases the contact life.



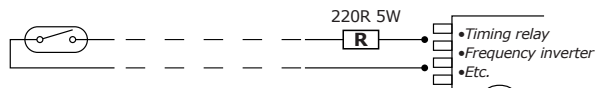
**? Risk of failure (welding of the Reed Switch Contact)** due to CAPACITANCE, which can occur depending on the distance and cable used in the connection to the contactor.

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



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

• Connecting the sensor to an electronic equipment:



**! Important:** For installation with **relay coupler**, use 4K7 10W resistor.

For better sealing, the internal surface of the tank must be free of roughness.

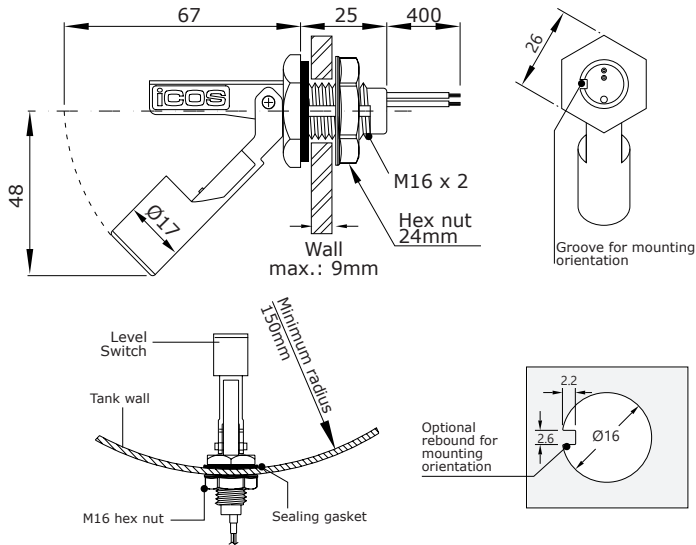
## Internal Side Mounting in Ø16mm Hole



Technical Specifications	LA16M-40	LA26M-40	LA36M-40	LA36-M12
Material	POM	PP	PPA	PPA
Operating temperature range	-10°C to 100°C	-10°C to 100°C	-10°C to 125°C	-10°C to 125°C
Maximum operating pressure	2bar	2bar	2bar	2bar
Color	White	Dark blue	Black	Black
Liquid minimum density (SG)	0.76	0.68	0.70	0.70
Sealing	NBR gasket	NBR gasket	NBR gasket	NBR gasket
Output connection	40cm cable	40cm cable	40cm cable	M12 plug

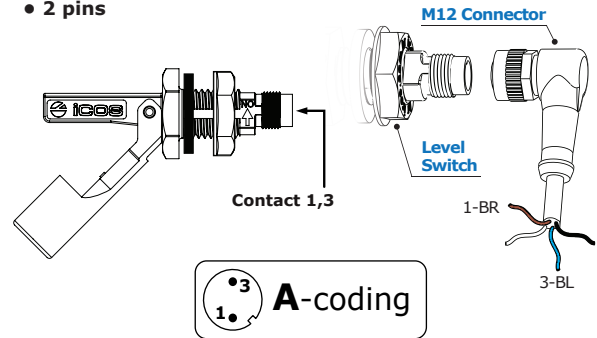


- Electrical contact: Reed Switch 20W/VA
- Internal mounting in through hole with sealing gasket;
- NO or NC, by rotating the sensor 180°;
- Detects increased or decreased level inside the tank.



### M12 Plug Sensors Installation

• 2 pins



### Constructive Materials

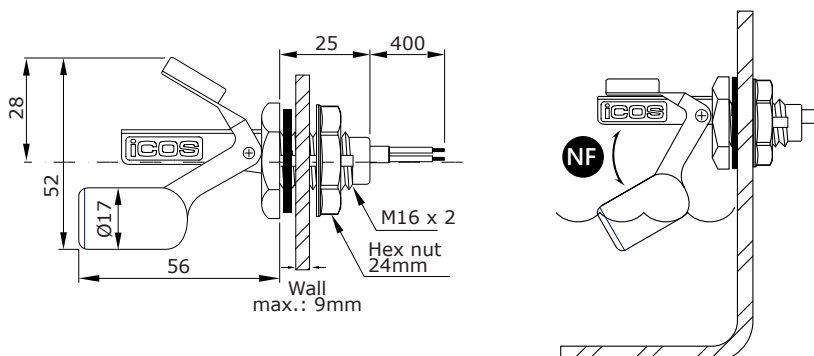
- POM Polyacetal:** Ideal for water, fuels and lubricants.
- PP Polypropylene:** Ideal for chemical products. **NOT suitable for fuel.**
- PPA Polyphthalamide:** Best mechanical and temperature resistance.

## For Fouling Liquids - Surface Mounting



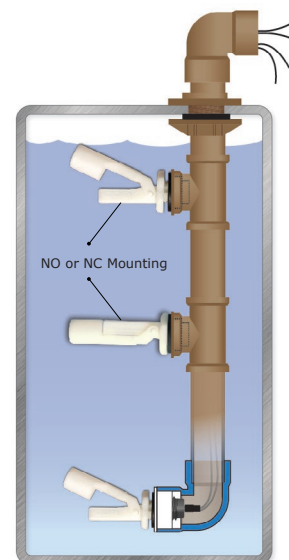
Technical Specifications	LB16M-40	LB26M-40
Material	POM	PP
Operating temperature range	-10°C to 100°C	-10°C to 100°C
Color	White	Dark blue
Liquid minimum density (SG)	0.65	0.64
Sealing	NBR gasket	NBR gasket
Output connection	40cm cable	40cm cable

- Electrical contact: Reed Switch 20W/VA
- For fouling liquids or liquids with small solid particles;
- Works exclusively NC to detect maximum level;
- The float is kept away from the body, avoiding the contact of the liquid with the pivot.



## Level Switch + Adapter + PVC Pipe

Mount your Multi-Point Level Control!



- ✓ Fast
- ✓ Cheap
- ✓ Reliable

Check on:  
[pvcadapter.icos.us](http://pvcadapter.icos.us)

Dimensions in millimeters

On [levelsensor.icos.us](http://levelsensor.icos.us) check models and prices of Level Switches

Flow Switches and Level Switches for liquids

Make it Easy