

Optoelectronic level switch Compact design Model OLS-C29, refrigerant version with relay output

WIKA data sheet LM 31.03

Applications

- Level measurement for liquid media
- Level control and monitoring of distinct filling levels
- Machine building
- Refrigerator units

Special features

- Temperature ranges from -30 ... +120 °C
- Exchange of the electronics without opening the vessel, the process connection with the glass prism remains at the vessel
- Operating states can be read via the LED
- Various switching delays selectable
- Relay output



Optoelectronic level switch, model OLS-C29

Description

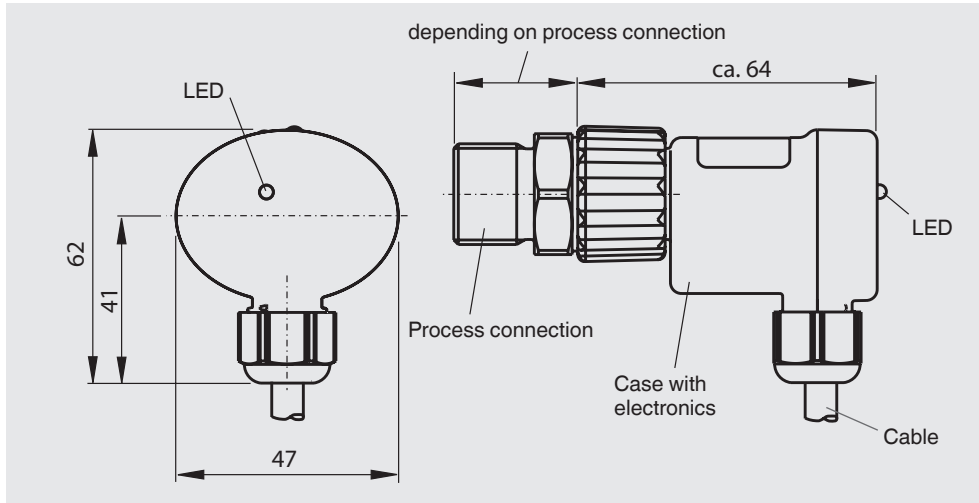
The model OLS-C29 optoelectronic level switches are used for the detection of limit levels in liquids. This is widely independent of physical characteristics such as refractive index, colour, density, dielectric constant and conductivity. Measurement is also done in small volumes.

The switches include an infrared LED and a phototransistor. The light of the LED is directed into a prism. So long as the sensor tip of the prism is in the gas phase, the light is reflected within the prism to the receptor. When the liquid in the vessel rises and wets approximately 2/3 of the glass tip, the infrared lightbeam into the liquid is interrupted and only a small portion reaches the receptor.

The switching status of the OLS-C29 can be read directly on the sensor.

The electronics can be exchanged without opening the vessel, while the glass prism remains within the vessel.

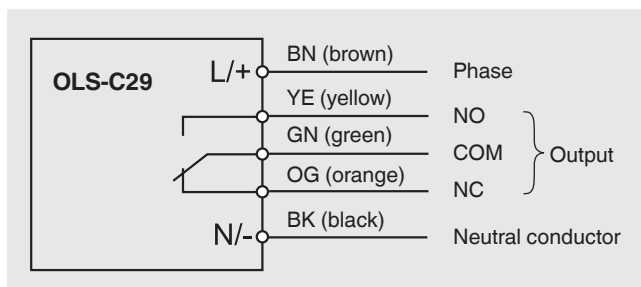
Specifications, dimensions in mm



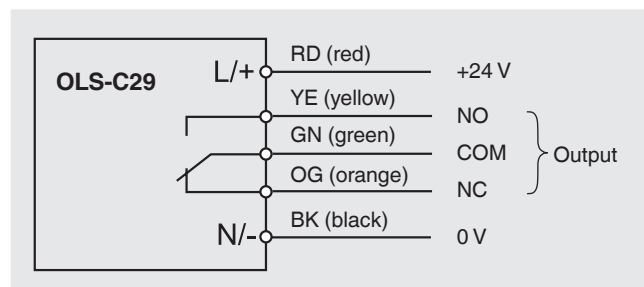
| Specifications | |
|--|--|
| Material | |
| ■ Electronic case | PA66, glass-fibre reinforced |
| ■ Process connection | Steel, nickel-plated |
| ■ Prism | Borosilicate glass |
| Mounting of case to process connection | Union nut |
| Light source | IR light 930 nm |
| Ambient light | max. 500 Lux |
| Medium temperature | -30 ... +120 °C |
| Ambient temperature | -30 ... +60 °C |
| Max. operating pressure | 42 bar |
| Mounting position | horizontal |
| Minimum distance from the glass tip to an opposite surface | > 10 mm |
| Visual indication of the switching status | red LED |
| Switching delay (factory-set, fixed) | approx. 1 s, others up to 12 s on request |
| Power supply | AC 110 ... 230 V ±15 % or DC 24 V ±15 % |
| Current supply max. | approx. 22 mA |
| Output relay | Change-over contact |
| Switching voltage, current, power | AC 250 V, NC = 5 A, NO = 7 A, 1,750 VA |
| Connection cable | 5 x 0.75 mm ² , L = 2 m, colour-coded |
| Mech. service life | approx. 10 ⁵ switching cycles |
| Ingress protection | IP 54 |

Electrical connection diagram

Power supply 230 V



Power supply 24 V



Model overview

■ Switch

| Process connection | Power supply | Switching delay | Cable length | Order no. |
|--------------------|--------------|-----------------|--------------|-----------|
| M20 x 1.5 | DC 24 V | 1 s | 2 m | 115733 |
| | AC 230 V | 1 s | 2 m | 115826 |
| 1 1/8 UNEF | DC 24 V | 1 s | 2 m | 115839 |
| | AC 230 V | 1 s | 2 m | 115841 |
| NPT 1/2" | DC 24 V | 1 s | 2 m | 115842 |
| | AC 230 V | 1 s | 2 m | 115843 |
| | DC 24 V | 5 s | 3 m | 115914 |
| G 1/2" | DC 24 V | 1 s | 2 m | 115859 |
| | DC 24 V | 1 s | 3 m | 115875 |
| | AC 230 V | 1 s | 2 m | 115858 |

Other versions on request

■ Electronics

| Power supply | Switching delay | Cable length | Order no. |
|--------------|-----------------|--------------|-----------|
| DC 24 V | 1 s | 2 m | 114690 |
| AC 230 V | 1 s | 2 m | 115824 |
| DC 24 V | 1 s | 3 m | 115874 |
| DC 24 V | 5 s | 3 m | 115913 |

Other versions on request

Ordering information

To order the described product the order number (if available) is sufficient.

Alternatively:

OLS-C29 / Power supply / Process connection / Switching delay / Cable length

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