

# 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

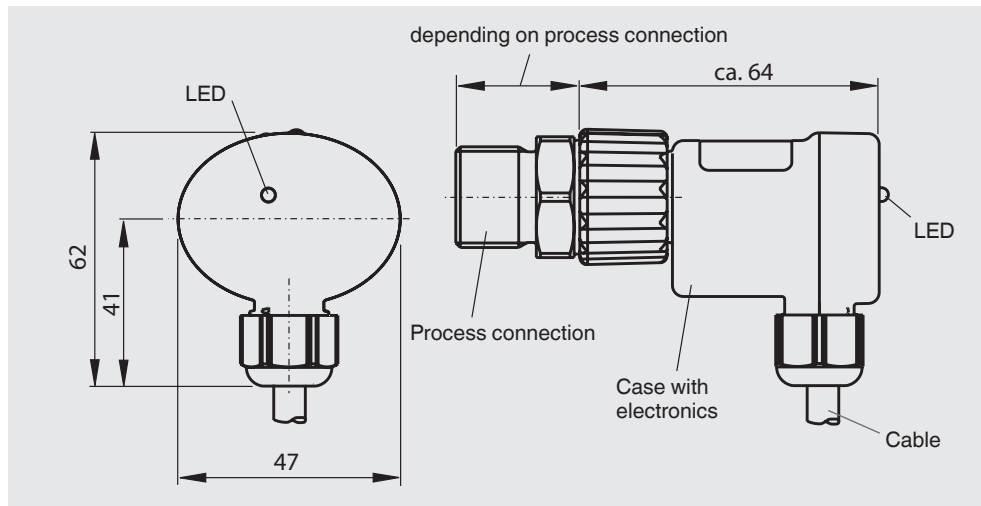
The model OLS-C29 optoelectronic level switches are used for the detection of limit levels in liquids. This is widely independent of physical characteristics such as refractive index, colour, density, dielectric constant and conductivity. Measurement is also done in small volumes.

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

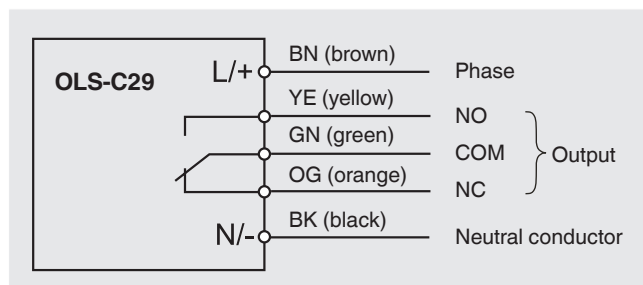


### Specifications

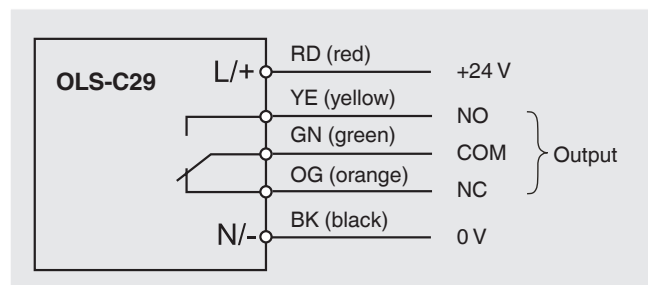
<b>Material</b>	
■ Electronic case	PA66, glass-fibre reinforced
■ Process connection	Steel, nickel-plated
■ Prism	Borosilicate glass
Mounting of case to process connection	Union nut
Light source	IR light 930 nm
Ambient light	max. 500 Lux
Medium temperature	-30 ... +120 °C
Ambient temperature	-30 ... +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 <sup>2</sup> , L = 2 m, colour-coded
Mech. service life	approx. 10 <sup>5</sup> 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.
<b>M20 x 1.5</b>	DC 24 V	1 s	2 m	115733
	AC 230 V	1 s	2 m	115826
<b>1 1/8 UNEF</b>	DC 24 V	1 s	2 m	115839
	AC 230 V	1 s	2 m	115841
<b>NPT 1/2"</b>	DC 24 V	1 s	2 m	115842
	AC 230 V	1 s	2 m	115843
	DC 24 V	5 s	3 m	115914
<b>G 1/2"</b>	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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