

Optoelectronic level switch

Compact design

Model OLS-C51, explosion-protected version

TC Fluid Control data sheet LM 31.04



Applications

- Machine tools
- Hydraulics
- Plant construction and machine building
- Water technology
- For liquids, such as oils, water, distilled water, aqueous media

Special features

- Application at medium temperatures up to +135 °C
- Mounting position as required
- Accuracy ± 0.5 mm
- Explosion-protected version Ex i



Optoelectronic level switch, model OLS-C51

Description

The model OLS-C51 optoelectronic level switch is used for monitoring the level of liquids. The optoelectronic sensor consists of an infrared LED and a light receiver.

The light from the LED is directed into a prism which forms the tip of the sensor. So long as the tip is not immersed in liquid, the light is reflected within the prism to the receiver.

When the liquid rises within the vessel and surrounds the tip, the light beam is interrupted by the liquid, so that the reactor is no longer or only weakly reached by the light and reacts to this change by triggering a switching operation.

As an explosion-protected version, the model OLS-C51 level switch is designed for medium temperatures up to 135 °C in zone 0 and 1.

Specifications

General data	
Measuring accuracy	±0.5 mm
Minimum distance from the glass tip to an opposite surface	≥ 10 mm
Mounting position	as required
Process connection	G 1/2" (male)
Approval	Ex i (previous model designation OPG 051)

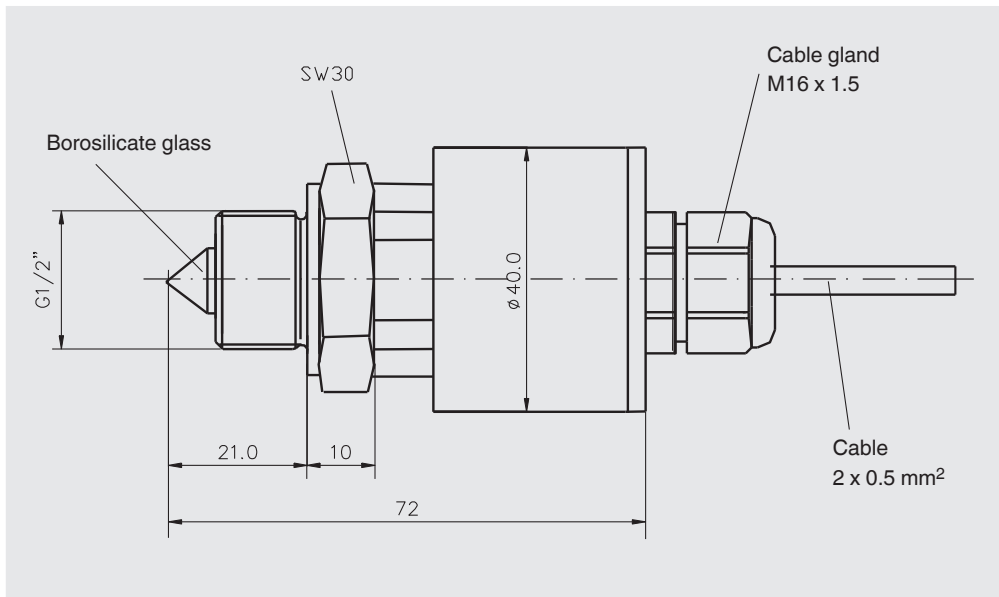
Design data	
Responsiveness	preset, please specify the medium
Medium temperature	-30 ... +135 °C
Ambient temperature	-30 ... +80 °C
Operating pressure	0 ... 2.0 MPa (0 ... 20 bar)
Materials	
■ Light guide	Borosilicate glass
■ Case	Stainless steel 1.4305 (non-wetted parts)
■ Process connection	Stainless steel 1.4571

Electrical data	
Power supply	DC 7.5 ... 30 V $I_o = 100 \text{ mA}$, $U_o = 30 \text{ V}$, $P = 1 \text{ W}$
Output	4 ... 20 mA, protected against reverse polarity Normally open: ≥ 4 mA to < 10 mA Normally closed: ≥ 12 mA to 18 mA Fault: < 4 mA, > 20 mA
Electrical connection	
■ PUR cable halogen-free	Standard lengths: 2 and 5 m Diameter: 3 x 0.25 mm ²
Switching function	Normally open (closed in medium) or normally closed (open in medium)
Ingress protection	IP 65
Number of switch points	1

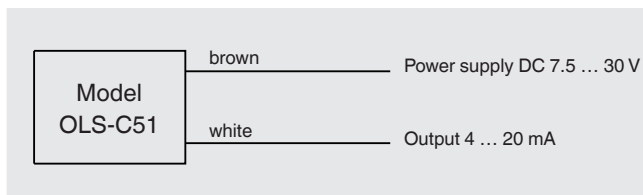
Options

- Other versions on request

Dimensions in mm



Electrical connection diagram



Ordering information

Model / Process connection / Electrical connection / Switching function / Medium / Options

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