FO-02N

Optoelectronic Compact Level Switch

Features

/ Compact design

/ Integrated electronic switch

/ Low-maintenance

/ Sensorlengths from 65-3000 mm

/ No moving parts

/ Any mounting position

/ Accuracy ± 2 mm

Description:

An optical sensor is mounted in a robust stainless steel housing. It consists of a borosilicate glass tip which contains an infrared diode, as a transmitter, and a light-sensitive semi-conductor as the receiver. If the sensor tip is not immersed in the fluid, the infrared light will be fully reflected by the inside of the quartz glass. However, as soon as it is immersed into the medium, a large portion of the transmitted light can pass into the fluid. Registering this, the receiver initiates a switching operation at the device's transistor output.

Application:

The field of application for the optoelectronic level switch include tapping limit values in a number of fluids. The main advantage is, that the method of measurement is to a large extent independent of physical parameters like refractive index, colour, density, dielectric constant or conductivity. The extremely compact design guarantees minimum space requirement. in contrast to the FO-01, the FO-02N can be supplied with measuring lengths of up to 3000 mm, so that the user can select the setpoint freely. The direction of switching for the high-performance transistor output on the device is reversible.

Versions:

FO-02N Optoelectronic Compact Level Switch

Power supply: The power supply of the FO-02N should be 12 to 32 VDC.
Sensor length: The sensor is available in six standard-lengths: 150, 300, 500, 750, 1000 and 1500 mm. Other lengths, up to 3000 mm are available on request.

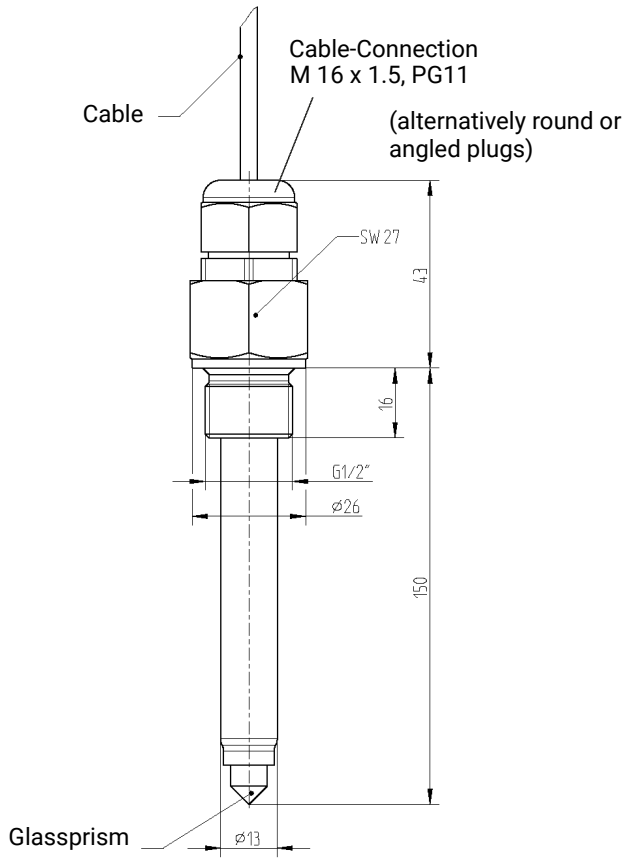
Technical Specifications:

Accuracy /	± 2 mm
Response sensitivity /	factory configured, please specify media, or alternatively with trimmer
Switching delay /	1 s (standard, 0. . .7s to choose)
max. Pressure /	0. . .25 bar
max. Mediatemp. /	-30°C to +100°C
max. Ambient-temp. /	-25°C to +70°C
Material /	
Light conductor:	Borosilicateglass
Body and process connection:	Stainless Steel 1.4571
Installation position /	any
min. Distance any opposing surface /	≥ 10 mm ≥ 20 mm with elektropolisch surface
Sensor length /	min. 65 mm - max. 3000 mm
Process connection /	G½"

Electrical Specifications:

Power supply /	DC 12. . .32V
max. Current consumption /	40 mA
Output /	PNP-Transistor, polarity assured, 200 mA switching current
Electrical connection /	
Round plug:	M12 x 1 (4-pin)
PUR-Cable:	Standard length: 2 m or 5 m Diameter: 3 x 0.25 mm² Cable-ends: open
Angled plug:	EN 175301-803 A
Switch /	NO (closed in the medium) or NC (open in the medium)
No. of switching points /	1
Protection class /	IP 65

Dimensions in mm:



Ordering Codes:

Order Number:	**FO-02N.**	**3.**	**4.**	**2.**	**0**

FO-02N Optoelectronic Compact Level Switch

Electrical connection /
1 = 2 m cable PUR
2 = 5 m cable PUR
3 = round plug M 12 (without counterplug)
4 = angled plug EN 175301-803 A

Sensor length* /
1 = 150 mm
2 = 300 mm
3 = 500 mm
4 = 750 mm
5 = 1000 mm
6 = 1500 mm

Output /
1 = switch when immersing
2 = switch when surfacing

Option /
0 = factory configured (please specify media)
8 = switching delay 0. . .7s (please specify)
9 = with Trimmer

*other lengths up to 3000 mm are available on request.

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