Opto-Electronic Level Switch OG 02

Limit switch for liquid media

- Sensor tube length selectable
- Foam detection
- High reliability
- Installation in any position
- No moving parts

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Features

- No moving parts
- Excellent price-performance ratio
- Easy installation
- Installation in any position
- High reliability
- Long lifetime
- Accuracy: ± 0.5 mm
- Electrical connection: cable or plug
- PNP transistor output
- Normally open or normally closed
- Response sensitivity adaptable to measurement task (e.g. detection of foam)
- Sensor tube length available between ≤65 mm and ≥3000 mm

Principle of operation

The optoelectronic sensor includes an infrared LED and a light receiver.

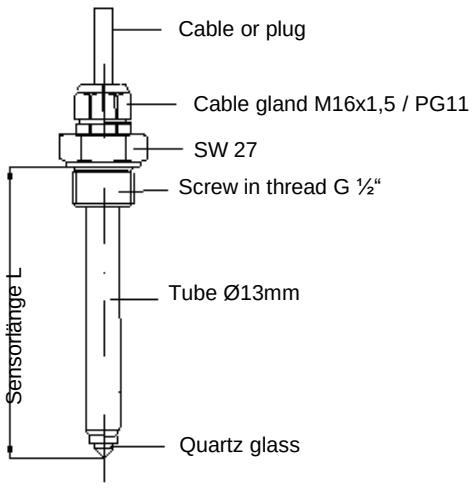
The LED light is directed into a prism that forms the tip of the sensor. As long as the tip is not immersed in liquid, the light within the prism is reflected to the receiver.

If the liquid rises in the container and surrounds the tip, the light is refracted by the liquid and no longer or only weakly reaches the receiver, which responds to this change and initiates a switching process.

Application

- Plant construction
- Machine tools
- Chemistry and pharmaceutical industry
- Hydraulic
- Mechanical engineering
- Water technology, etc.

Dimensions



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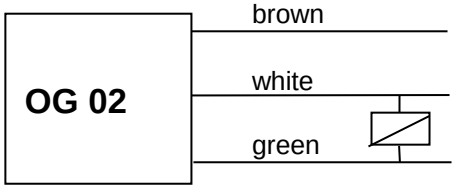
Technical data	
Max. pressure	2,5 MPa
Ambient temperature	-25°C to +70°C
Medium temperature	-30°C to +100°C; max. +150°C shorttime
Accuracy	± 0,5 mm
Housing	Stainless steel 316 Ti
Material of glass prism	Quartz glass
Min. distance reflective surface to the prism	> 10 mm
Mounting position	any
Screw in thread	G½“, other versions on request
Sensor tube length	min 65 mm max. 3000 mm

Electrical data	
Operating voltage	12 – 32 V DC
Current consumption max.	40 mA
Number of switching points	1
Output	DC PNP (200mA), reverse polarity protected
Function	Normally open or normally closed
Protection	IP65
Electrical connection	PVC, PUR-cable 3 x 0,25 mm² or angle plug or plug M12, other versions on request

Electrical connection



Current supply 12…32 VDC

0

Output 12…32 VDC

Plug M12	
1	Supply 12…32 V DC
3	0
4	Output 12…32 V DC

Important instructions!
Technical changes and errors reserved.
Pictures can be similar.
The operating instructions belonging to this device must be observed! Download at www.schmidt-messtechnik.com.

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Ordering information

OG 02

Process connection
A Thread G ½“
X other versions on request

Electrical connection
2P Cable outlet 2 m PVC cable 3 x 0,25 mm², standard
└— Indication in m if other lengths of cable
2U Cable outlet 2 m PUR cable 3 x 0,25 mm², standard
└— Indication in m if other lengths of cable
W Angle plug according to DIN 43650
M12 Cable outlet M12
X other versions on request

Switch function
S Normally open (in medium closed, 12 – 32 V DC)
O Normally closed (in medium open, 0 V DC

Responsiveness
A Responsiveness not adjustable (**Please indicate the medium!**)
T Responsiveness adjustable by trimmer (adjustable to measuring task)

OG 02				

Example: Process connection G3/8“, 3 m PVC-cable, normally open, permanently set, medium water: OG 02 A 3P S A 500

Accessories: Round plug connector M12

Type		ID-No.	Design
Connection plug M12 with	2 m PVC-cable	K12PVC 2	
	5 m PVC-cable	K12PVC 5	
	2 m PUR-cable	K12PUR 2	
	5 m PVC-cable	K12PVC 5	
Angle plug M12 with	2 m PVC-cable	W12PVC 2	
	5 m PVC-cable	W12PVC 5	
	2 m PUR-cable	W12PUR 2	
	5 m PVC-cable	W12PUR 5	

Coulour coding

1	brown
3	blue
4	black

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