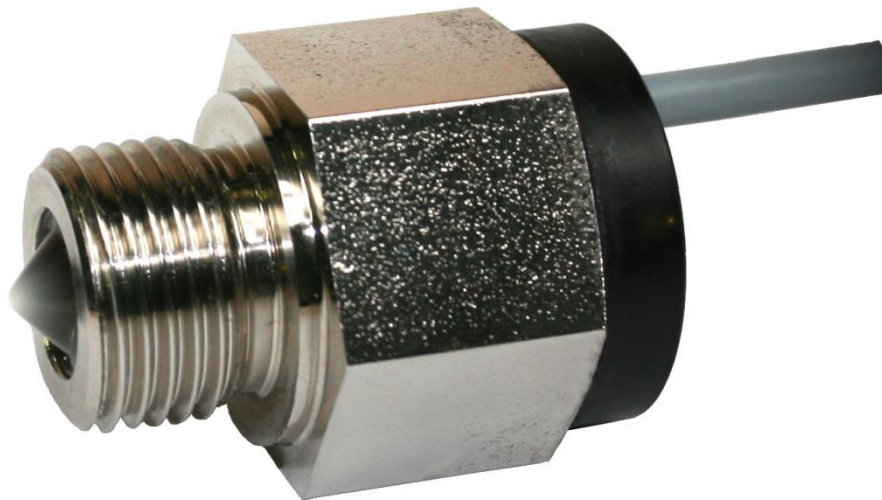




## **Opto-Electronic Level Switch OG 04**

Limit switch for liquid media in the refrigeration engineering



- For refrigerant, ammonia
- Small and compact
- High compressive strength
- High reliability
- Location-independent installation
- No moving parts

D-EN-OG04-20190513



## Opto-Electronic Level Switch OG 04

Limit switch for liquid media in the refrigeration engineering

### Features

- Small and compact
- No moving parts
- Excellent price / performance ratio
- Easy installation
- Location-independent installation
- High reliability
- Long lifetime
- Accuracy:  $\pm 0.5$  mm
- Electrical connection: cable or plug
- Function indicator LED
- PNP transistor output
- Pressure 4 MPa, optionally higher
- Normally open or normally closed contact
- Response sensitivity may be adjusted to measurement task
- Glass sealed in steel case (no seal)

### Principle of operation

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

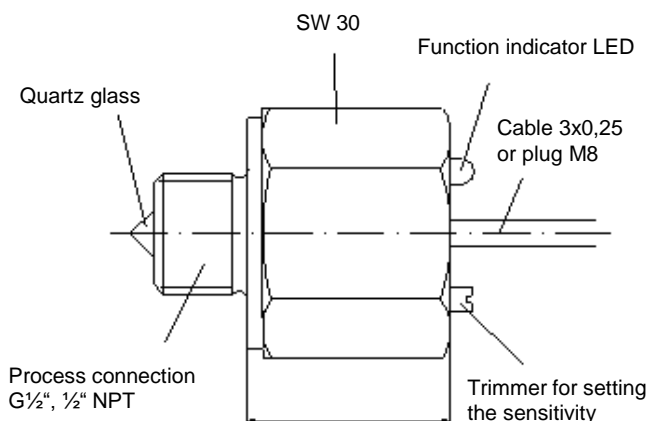
The LED light is directed into a prism that forms the tip of the sensor. As long as the tip is not immersed in liquid, the light within the prism is reflected to the receiver.

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



D-EN-OG04-20190513



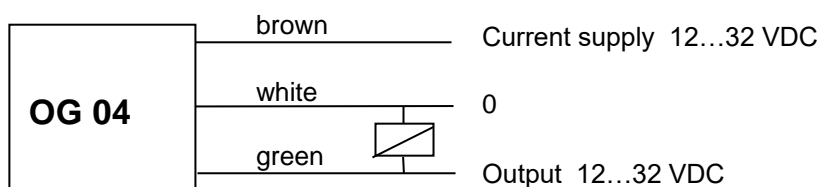
## Opto-Electronic Level Switch OG 04

Limit switch for liquid media in the refrigeration engineering

Technical data	
Max. pressure	4 Mpa, optionally higher
Ambient temperature	-30°C to +70°C
Medium temperature	-40°C to +100°C
Accuracy	± 0,5 mm
Housing	Nickel-plated steel
Material of glass prism	Glass, melted in steel case (without seal)
Min. distance reflective surface to the prism	> 10 mm
Mounting position	any
Screw in thread	G $\frac{1}{2}$ " , $\frac{1}{2}$ " NPT, other versions on request

Electrical data	
Operating voltage	12 – 32 V DC
Current consumption max.	40 mA
Number of switching points	1
Function	Normally open or normally closed contact
Output	DC PNP (200mA), reverse polarity protected
Protection	IP65
Electrical connection	PVC, PUR-cable 3 x 0,25 mm <sup>2</sup> or angle plug or plug M8, other versions on request

### Electrical connection



Plug M8	
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](http://www.schmidt-messtechnik.com).



## Opto-Electronic Level Switch OG 04

Limit switch for liquid media in the refrigeration engineering

### Ordering information

**OG 04**

#### Process connection

- A Thread G ½"
- B Thread ½" NPT
- X other versions on request

#### Electrical connection

- 2P Cable outlet 2 m PVC cable 3 x 0,25 mm<sup>2</sup>, standard  
Indication in m if other lengths of cable
- 2U Cable outlet 2 m PUR cable 3 x 0,25 mm<sup>2</sup>, standard  
Indication in m if other lengths of cable
- M8 Cable outlet M8
- 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)

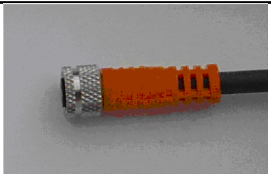

#### Responsiveness

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

OG 04					
-------	--	--	--	--	--

Example: Process connection G½", 3 m PVC-cable, normally open, permanently set, medium water: OG 04 A 3P S A 500

### Accessories: Round plug connector M12

Type		ID-No.	Design
Connection plug M8 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 M8 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	

#### Colour coding

1	brown
3	blue
4	black

D-EN-OG04-20190513