

Opto Electronic Level Switch

Limit Switch for detecting the level of liquid media

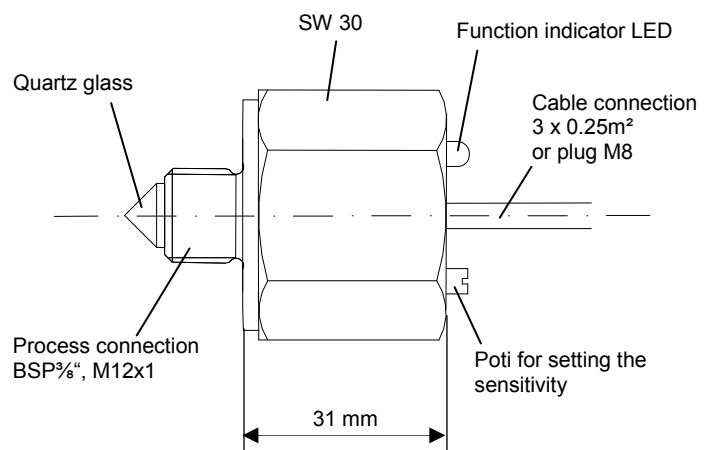
OPG 01



Characteristics

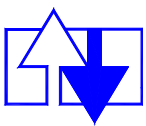
- ▶ Compact construction
- ▶ No moving parts
- ▶ Reasonable prices
- ▶ Simple to install
- ▶ Mounting direction: any
- ▶ High reliability
- ▶ Long service life
- ▶ Measuring accuracy $\pm 0,5$ mm
- ▶ Electrical connection: cable connection or plug
- ▶ Optical switch condition check via the LED
- ▶ Output PNP
- ▶ Closer or Opener
- ▶ Adjustable sensitivity for any application

Dimensions



Areas of application

- Plant construction
- Machine tools
- Chemicals and Pharmaceuticals
- Hydraulics
- Machine construction
- Water treatment etc.



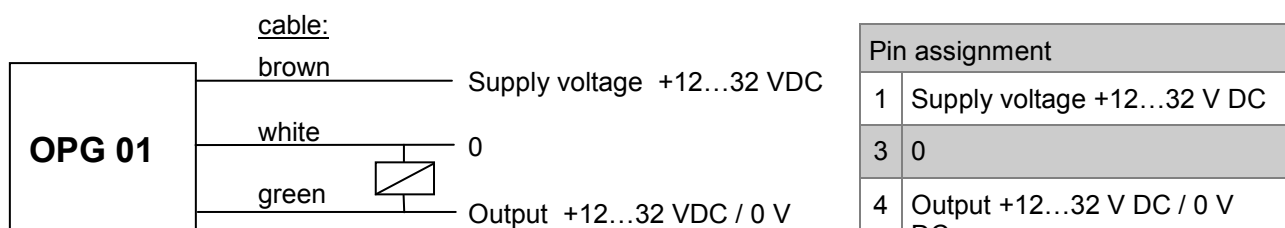
Operating Principle

The electro-optic sensor contains an infrared LED and a light receiver.

Light from the LED is directed into a prism which forms the tip of the sensor. With no liquid present, light from the LED is reflected within the prism to the receiver.

When rising liquid immerses the prism, the light is refracted out into the liquid, leaving little or no light reach the receiver. Sensing this change, the receiver actuates electronic switching within the unit to operate an external alarm or control circuit.

Connection diagram

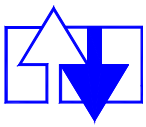


Technical Data

Max. pressure	1 MPa	Material housing	stainless steel 303
Ambient temperature	-25°C to +70°C	Material prism	quartz glass
Operating temperature	-30°C to +100°C	Mounting direction	any
	max. +150°C 15minutes	Process connections	BSP 3/8", M12x1, other types on request
Measuring accuracy	± 0,5 mm		
Min. distance sensor tip to any opposite wall	> 10 mm		

Electrical Data

Supply voltage	12...32 V DC	Indication of active output	1 LED
Supply current max.	40 mA	Electrical connection	cable PVC and PUR 3 x 0,25 mm ² or plug M8, other types on request
Switch point number	1		
Output	PNP Transistor		
Switch function	closer or opener		
Protection	IP65		



Product overview / order table

OPG 01

Process connection
 A Fixing screw thread BSP $\frac{3}{8}$ "
 B Fixing screw thread M 12 x 1 mm
 X Other types on request

Electrical connection
 2P Connection cable: 2 m PVC 3 x 0,25 mm², Standard
 └ other cable length: dimensions in m
 2U Connection cable: 2 m PUR 3 x 0,25 mm², Standard
 └ other cable length: dimensions in m
 M8 Plug M8
 X Other types on request



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

Sensitivity
 A Sensitivity not adjustable (**please specify the medium**)
 T Sensitivity adjustable (with poti)

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Example:
 Process connection BSP $\frac{3}{8}$ ", 3m PVC cable, closer, sensitivity not adjustable, medium water: OPG 01 A 3P S A

Accessories: Circular plugs M8

Type		Order number	Design
Female plug M8 with	2 m PVC cable	K8PVC 2	
	5 m PVC cable	K8PVC 5	
	2 m PUR cable	K8PUR 2	
	5 m PUR cable	K8PUR 5	
Female plug M8, angle type with	2 m PVC cable	W8PVC 2	
	5 m PVC cable	W8PVC 5	
	2 m PUR cable	W8PUR 2	
	5 m PUR cable	W8PUR 5	

Colour	
1	brown
3	blue
4	black

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