



# **Assembly and Operating Instructions for the Opto-Electronic Sensor OG 052**





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### Functional description

The optoelectronic sensor OG disposes of an infrared LED and a light detector. The light of the LED is directed to a glass prism forming the tip of the sensor. As long as the tip is not immersed into a fluid, the light is reflected within the prism to the receiver. If the fluid contained in the receptacle rises and encloses the tip, the light is refracted by the liquid, leaving little or no light to reach the receiver. The sensor in turn reacts to the change and initiates a switching operation (closer or opener, output: PNP transistor or current signal).

### Field of application

The OG is mainly used to control and monitor the filling level of liquid media. The sensor does not depend on the refractive index, the density, the conductivity and the dielectric coefficient of such media. The level control is carried out with high precision. By means of the OG, the filling level in very small receptacles can also be monitored. The sensor thus offers a very broad range of applications for limit value detections. Applications: Engines, machine tools, hydraulic aggregates, construction equipment, agricultural machinery.

### Maintenance and servicing

The sensor is usually maintenance-free. However, if the plant is expected to become heavily contaminated or encrusted, it is recommendable to introduce maintenance intervals. This depends on the optical state of the glass tip and the switching behaviour. In case of a fault, the sensor must be sent to the manufacturer.

### Electrical connections

The electrical connection must comply with the installation requirements applicable in the country in which the sensor is installed. It must only be carried out by qualified personnel.

### Assembly

The limit switch is to be mounted in accordance with the connection. The glass prism should be clean. A distance of at least 10 mm should be observed between the glass tip and the opposite wall.

Mounting recommendations: The mounting position can vary, i.e. the sensor can be mounted vertically, horizontally, diagonally or from below.

Advisable arrangements: highly viscous media: horizontal or from below.

### .Warranty

We assume warranty for a period of 12 months for our products, provided they are handled properly according to these assembly and operating instructions.