## OL150700

#### FIBER OPTIC SENSORS • FIBER OPTIC AMPLIFIERS

Fiber optics in combination with the appropriate fiber optic amplifier function as contactless and wear-free position switches that can also be used in harsh environmental conditions. They detect objects independent of their characteristics (e.g., shape, color, surface structure, material). Because the ends and heads of the fiber optics have small dimensions and the fiber optics are flexible, very elegant solutions can be created for detecting objects in places that are difficult to access. Fiber optics can be used without special precautions in potentially explosive areas and in zones with electrical and/or magnetic fields (high-voltage installations, electrical welding equipment) as their function is not thereby affected. Fiber optics are available in versions for implementing the function as through-beam sensor or diffuse reflection sensor.



#### **MECHANICAL DATA**

| Ambient temperature (MAX)     | 55 °C             |
|-------------------------------|-------------------|
| Ambient temperature (MIN)     | -25 °C            |
| Amplifier height              | 30 mm             |
| Amplifier length              | 30 mm             |
| Amplifier width               | 15 mm             |
| Degree of protection (IP)     | IP67              |
| Housing design                | Cuboid            |
| Housing material              | PBTP              |
| Material of cable sheath      | PVC               |
| ELECTRICAL DATA               |                   |
| Analogue output 4 mA 20 mA    | No                |
| Hysteresis                    | 10 %              |
| Max. output current           | 200 mA            |
| No-load current               | 20 mA             |
| Number of pins                | 4                 |
| Operating voltage (MAX)       | 35 V              |
| Operating voltage (MIN)       | 10 V              |
| Response/decay time           | 0.5 ms            |
| Reverse polarity protection   | Yes               |
| Scanning function             | Light switching   |
| Setting procedure             | Manual adjustment |
| Short-circuit-proof           | Yes               |
| Switching frequency           | 1000 Hz           |
| Type of electrical connection | Connector M8      |
| Type of switching output      | PNP               |
| Voltage drop                  | 2 V               |
| Voltage type                  | DC                |
| With LED display              | Yes               |
|                               |                   |



# **OPTICAL DATA**

Light source

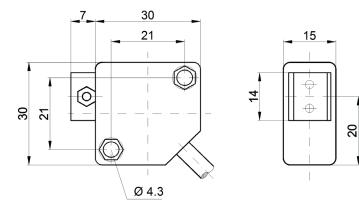
Wavelength of the sensor

### CONNECTION



**Colors:** BN (brown), WH (white), BU (blue), BK (black) **Functions:** BN = L+, WH = alarm, BU = L-, BK = PNP NO

#### **DIMENSIONAL DRAWING**



# INSTALLATION



Mounting / Installation may only be carried out by a qualified electrician!

DISPOSAL



#### **SAFETY WARNINGS**

Before initial operation, please make sure to follow all safety instructions that may be provided in the product information!

Never use these devices in applications where the safety of a person depends on their functionality.

Polarity free red light

660 nm