

#### OS126003

### HIGH-PERFORMANCE THROUGH-BEAM SENSORS • THROUGH-BEAM SENSORS TRANS-MITTERS

Optical sensors function contactlessly. They detect objects independent of their characteristics (e.g., shape, color, surface structure, material). The basic operating principle is based on the transmission and reception of light. There are three different versions: 1. The through-beam sensor consists of two separate devices, a transmitter and a receiver that are aligned with one another. If the light beam between the two devices is interrupted, the switching output integrated in the receiver changes its status. 2. With the retro-reflective sensor, the transmitter and receiver are located in one device. The emitted light beam is reflected back to the receiver by a reflector that is to be mounted opposite the device. As soon as the light beam is interrupted,



the switching output integrated in the device changes its status. 3. With the diffuse reflection sensor, the transmitter and receiver are in one device. The emitted light beam is reflected by the object that is to be detected. As soon as the receiver detects the reflected light, the switching output integrated in the device changes its status.

#### **TECHNICAL DATA**

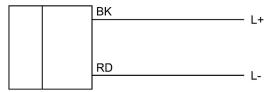
| TECHNICAL DATA                          |                        |
|---|------------------------|
| Alarm output                            | No                     |
| Ambient temperature                     | -25 °C 60 °C           |
| Angle of beam spread                    | 12 °                   |
| Cable length                            | 15 m                   |
| Connection to amplifier                 | Yes                    |
| Degree of protection (IP)               | IP67                   |
| Function test                           | No                     |
| Heavy-duty devices                      | Yes                    |
| Housing coating                         | Nickel-plated          |
| Housing design                          | Cylinder, screw-thread |
| Housing material                        | Brass                  |
| Increased ambient temperatures >70°C    | No                     |
| Input (TeachIn)                         | No                     |
| Input voltage                           | 0 V                    |
| Light beam form                         | Point                  |
| Light source                            | Infrared light         |
| Material of cable sheath                | PVC                    |
| Material of optical surface             | Plastic                |
| No-load current, transmitter            | 0 mA                   |
| Number of wires                         | 2                      |
| Rated switching distance                | 0 mm                   |
| Reverse polarity protection             | No                     |
| Scope of delivery of the one-way system | Transmitter            |
| Sensor length                           | 45 mm                  |
| Shock resistance                        | 30 G                   |
| Short-circuit-proof                     | No                     |
| Storage temperature                     | 80 °C                  |
|   |                        |



#### **TECHNICAL DATA**

| Storage temperature           | -40 °C   |
|-------------------------------|----------|
| Thread length                 | 26 mm    |
| Thread pitch                  | 1 mm     |
| Thread size, metric           | 12       |
| Transmitting power            | 0.04 W   |
| Type of electrical connection | Cable    |
| Type of input voltage         | DC       |
| Vibration resistance          | 55 Hz    |
| Voltage type                  | DC       |
| Wavelength of the sensor      | 880 nm   |
| Wire cross section            | 0.34 mm² |
| With LED display              | No       |
| With time function            | No       |

#### CONNECTION



Colors: BK (black), RD (red) Functions: BK = L+, RD = L-

### **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.