

**OYL22970**

**OPTICAL SENSORS • LIGHT BARRIERS**

The multi-function light barriers are through-beam sensors where multiple beams are integrated. In case of interruption of only one beam, the switching output of the receiver changes its state. The devices are used where standard through-beam sensors with only one beam are not sufficient. There are devices with beam spacing of 20, 40, 60 or 120mm and different heights available. An integrated fuzzy logic controls the transmitting power automatically.



**MECHANICAL DATA**

|                             |                  |
|-----------------------------|------------------|
| Ambient temperature         | -25 °C ... 55 °C |
| Cover material              | Plastic          |
| Degree of protection (IP)   | IP54             |
| Housing material            | Aluminium        |
| Material of optical surface | Plastic          |
| Protected field height      | 560 mm           |
| Sensor height               | 740 mm           |
| Sensor length               | 40.75 mm         |
| Sensor width                | 9 mm             |
| With bracket mounting       | Yes              |

**ELECTRICAL DATA**

|   |                               |
|---|-------------------------------|
| Cascadable  | No                            |
| Clock control possible                            | No                            |
| Equipment protection class                        | Protection class 3            |
| Max. output current                               | 100 mA                        |
| No-load current, receiver                         | 90 mA                         |
| No-load current, transmitter                      | 90 mA                         |
| Number of output contacts with signaling function | 1                             |
| Number of pins, receiver                          | 4                             |
| Number of pins, transmitter                       | 4                             |
| Override possible                                 | No                            |
| Rated control supply voltage $U_s$ at DC          | 10 V ... 30 V                 |
| Reaction time                                     | 220 ms                        |
| Reverse polarity protection                       | Yes                           |
| Short-circuit-proof                               | Yes                           |
| Suitable for safety functions                     | No                            |
| Suppression possible                              | Yes                           |
| Type of electrical connection                     | Connector M8                  |
| Type of switching function                        | Normally open/normally closed |
| Type of switching output                          | Relay contact                 |

## ELECTRICAL DATA

|  |    |
|--|----|
| Voltage type                                   | DC |
| With monitoring function of downstream devices | No |
| With muting function                           | No |
| With restart lock                              | No |

## OPTICAL DATA

|                                 |        |
|---------------------------------|--------|
| Beam spacing                    | 20 mm  |
| Number of beams                 | 29     |
| Protected field range           | 5 m    |
| Resolution of the light curtain | 20 mm  |
| Wavelength of the sensor        | 880 nm |

## OTHER DATA

|   |                          |
|---|--------------------------|
| Explosion protection category for dust  | None                     |
| Explosion protection category for gas   | None                     |
| Reduced resolution                      | No                       |
| Scope of delivery of the one-way system | Transmitter and receiver |
| With beam coding                        | Yes                      |

## CONNECTION



**Colors:** A: 1 = BN (brown), 2 = WH (white), 3 = BU (blue), 4 = BK (black)

B: 1 = BN (brown), 2 = WH (white), 3 = BU (blue), 4 = BK (black) **Functions:** A: 1 = L+, 2 = test, 3 = L-, 4 = n. c.

B: 1 = L+, 2 = relay, 3 = L-, 4 = relay

## 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!