

**OYL20770**

**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 (MAX)	55 °C
Ambient temperature (MIN)	-25 °C
Cover material	Plastic
Degree of protection (IP)	IP54
Housing material	Aluminium
Material of optical surface	Plastic
Protected field height	120 mm
Sensor height	300 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	60 mA
No-load current, transmitter	60 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 (MAX)	30 V
Rated control supply voltage $U_s$ at DC (MIN)	10 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

## ELECTRICAL DATA

Type of switching function	Normally open/normally closed
Type of switching output	Relay contact
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	7
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!

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