

OYL23970

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	760 mm
Sensor height	940 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	120 mA
No-load current, transmitter	120 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	39
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!