

**PS130072**

**LASER SENSORS • THROUGH-BEAM SENSORS TRANSMITTERS**

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.



**MECHANICAL DATA**

Ambient temperature (MAX)	50 °C
Ambient temperature (MIN)	-20 °C
Aperture diameter	2 mm
Degree of protection (IP)	IP67
Housing coating	Nickel-plated
Housing design	Cuboid
Housing material	Brass
Material of optical surface	Glass
Sensor height	64 mm
Sensor length	14 mm
Sensor width	12 mm
Storage temperature	85 °C

**ELECTRICAL DATA**

Function test	Yes
Laser power	1 mW
Measuring range	5 m
No-load current	60 mA
No-load current, transmitter	60 mA
Number of pins	3
Operating voltage (MAX)	32 V
Operating voltage (MIN)	12 V
Rated switching distance	6000 mm
Reverse polarity protection	Yes
Type of electrical connection	Connector M8
Type of input voltage	DC
Voltage type	DC

## ELECTRICAL DATA

With LED display Yes

With LED display (operation) Yes

## OPTICAL DATA

Laser class 1

Laser protection class Class 1

Light beam form Point

Light source Laser diode, red light

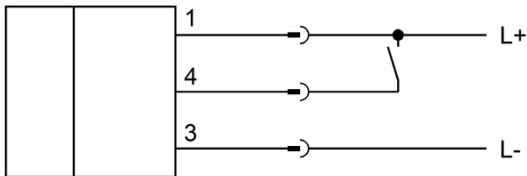
Light spot 3.14 mm<sup>2</sup>

Wavelength of the sensor 670 nm

## OTHER DATA

Scope of delivery of the one-way system Transmitter

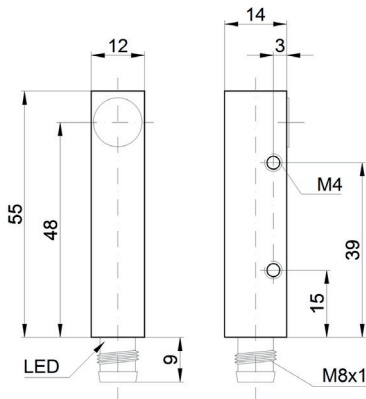
## CONNECTION



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

**Functions:** 1 = L+, 3 = L-, 4 = test

## 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.