

PS120022

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.



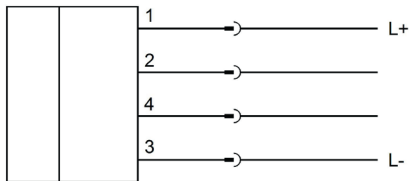
TECHNICAL DATA

Alarm output	No
Ambient temperature	-20 °C ... 50 °C
Aperture diameter	0.5 mm
Connection to amplifier	No
Degree of protection (IP)	IP67
Function test	Yes
Heavy-duty devices	No
Housing coating	Nickel-plated
Housing design	Cylinder, screw-thread
Housing material	Brass
Increased ambient temperatures >70°C	No
Input (TeachIn)	No
Laser class	1
Laser power	1 mW
Laser protection class	Class 1
Light beam form	Point
Light source	Laser diode, red light
Light spot	0.2 mm ²
Material of optical surface	Glass
Measuring range	1.5 m
No-load current	50 mA
No-load current, transmitter	50 mA
Number of pins	4
Operating voltage	12 V ... 32 V
Rated switching distance	1500 mm
Reverse polarity protection	Yes
Scope of delivery of the one-way system	Transmitter

TECHNICAL DATA

Short-circuit-proof	No
Storage temperature	85 °C
Thread length	45 mm
Thread pitch	1 mm
Thread size, metric	12
Type of electrical connection	Connector M12
Type of input voltage	DC
Voltage type	DC
Wavelength of the sensor	670 nm
With LED display	No

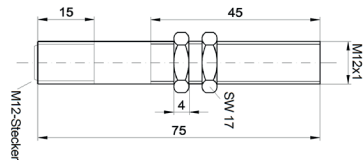
CONNECTION



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

Functions: 1 = L+, 2 = test, 3 = L-, 4 = shielding

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.

