

PE991323

LASER SENSORS • THROUGH-BEAM SENSORS RECEIVERS

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
Degree of protection (IP)	IP67
Housing coating	Nickel-plated
Housing design	Cylinder, screw-thread
Housing material	Brass
Reflector included in the scope of delivery	No
Sensor length	90 mm
Storage temperature	85 °C
Storage temperature	-20 °C
Thread length	60 mm
Thread pitch	1 mm
Thread size, metric	18

ELECTRICAL DATA

Laser power	1 mW
Max. output current	100 mA
Measuring range	150 m
No-load current	40 mA
Number of pins	4
Operating voltage (MAX)	32 V
Operating voltage (MIN)	12 V
Rated switching distance	150000 mm
Relative repeat accuracy	100 µm
Switching frequency	1000 Hz
Type of analog output	0 V ... 10 V
Type of electrical connection	Connector M12

ELECTRICAL DATA

Type of input voltage	DC
Type of switching function	Breaker contact (NC)
Type of switching output	PNP
Voltage type	DC
With time function	No

OPTICAL DATA

Filter	Interference filter
Light beam form	Line
Light source	Laser diode, red light
Wavelength of the sensor	670 nm

OTHER DATA

Scope of delivery of the one-way system	Receiver
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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.