

PS140070

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	-10 °C ... 50 °C
Degree of protection (IP)	IP67
Housing design	Cuboid
Housing material	Plastic ASA
Material of optical surface	PMMA
Sensor height	33.7 mm
Sensor length	16.3 mm
Sensor width	12 mm

ELECTRICAL DATA

IO-Link compatible	No
Laser power	0.4 mW
Measuring range	8 m
No-load current	30 mA
No-load current, transmitter	30 mA
Number of pins	4
Operating voltage	11 V ... 30 V
Rated switching distance	8000 mm
Reverse polarity protection	Yes
Type of electrical connection	Connector M8
Type of input voltage	DC
Voltage type	DC
With time function	No

OPTICAL DATA

Angle of beam spread	0.16 °
Laser class	1
Light beam form	Point

OPTICAL DATA

Light source

Laser diode, red light

Wavelength of the sensor

650 nm

OTHER DATA

Scope of delivery of the one-way system

Transmitter

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!