

## PESI0145

### LASER SENSORS • LINE 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)	-10 °C
Degree of protection (IP)	IP54
Heavy soiling	No
Housing coating	Anodised
Housing design	Cuboid
Housing material	Aluminium
Material of optical surface	Glass
Reflector included in the scope of delivery	No
Sensor height	40 mm
Sensor length	24 mm
Sensor width	24 mm

#### ELECTRICAL DATA

Connection to amplifier	Yes
Input (TeachIn)	Yes
No-load current	200 mA
Number of pins	7
Operating voltage (MAX)	30 V
Operating voltage (MIN)	12 V
Rated switching distance	0 mm
Relative repeat accuracy	2 µm
Setting procedure	Parameterization
Type of electrical connection	Connector M9
Type of input voltage	DC
Voltage type	DC
With time function	No

**OPTICAL DATA**

Light beam form	Line
Light source	Laser diode, red light
Line sensor	Yes
Resolution	2 µm

**OTHER DATA**

Scope of delivery of the one-way system	Receiver
---	----------

**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.