

## PR98C172

### LASER SENSORS • RETRO-REFLECTIVE LIGHT BARRIERS

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 ... 55 °C
Cable length	2 m
Housing material	PBT
Material of optical surface	Acrylic glass
Number of wires	2
Reflector included in the scope of delivery	Yes
Sensor height	31 mm
Sensor length	25 mm
Sensor width	2 mm
Storage temperature	70 °C
Storage temperature	-20 °C
Wire cross section	0.1 mm <sup>2</sup>

#### ELECTRICAL DATA

IO-Link compatible	No
Laser power	3 mW
Max. switching distance	7000 mm
Type of electrical connection	Cable
With communication interface, analog	No
With communication interface, AS-Interface	No
With communication interface, CANOpen	No
With communication interface, DeviceNet	No
With communication interface, Ethernet	No
With communication interface, INTERBUS	No
With communication interface, PROFIBUS	No
With communication interface, RS-232	No
With communication interface, RS-422	No

**ELECTRICAL DATA**

With communication interface, RS-485	No
With communication interface, SSD	No
With communication interface, SSI	No
With LED display	Yes
With time function	No

**OPTICAL DATA**

Laser class	2
Laser protection class	Class 2
Light beam form	Point
Light source	Laser diode, red light
Wavelength of the sensor	655 nm

**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!