

## PTSIO234

### LASER SENSORS • LASER COPY COUNTERS

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                         | -20 °C ... 50 °C |
| Degree of protection (IP)                   | IP54             |
| Housing design                              | Cuboid           |
| Housing material                            | Aluminium        |
| Reflector included in the scope of delivery | No               |
| Sensor height                               | 40 mm            |
| Sensor length                               | 40 mm            |
| Sensor width                                | 205 mm           |
| Storage temperature                         | 85 °C            |
| Storage temperature                         | -20 °C           |

#### ELECTRICAL DATA

|                                 |                     |
|---------------------------------|---------------------|
| Adjustment range                | 26 mm ... 34 mm     |
| Analogue output 0 mA ... 20 mA  | No                  |
| Analogue output 0 V ... 10 V    | No                  |
| Analogue output -10 V ... +10 V | No                  |
| Analogue output 4 mA ... 20 mA  | No                  |
| IO-Link compatible              | No                  |
| Max. output current             | 100 mA              |
| Max. switching distance         | 34 mm               |
| No-load current                 | 150 mA              |
| Number of pins                  | 8                   |
| Number of switching outputs     | 2                   |
| Rated switching distance        | 30 mm               |
| Reverse polarity protection     | Yes                 |
| Scanning function               | Light-/dark-on mode |
| Sensing range                   | 26 mm ... 34 mm     |

## ELECTRICAL DATA

|                               |   |
|-------------------------------|---|
| Setting procedure             | Parameterization                              |
| Short-circuit-proof           | Yes   |
| Switching frequency           | 130 Hz  |
| Type of electrical connection | Plug-in connection                            |
| Type of switching function    | Normally closed contact/normally open contact |
| Type of switching output      | PNP/NPN                                       |
| Voltage type                  | DC  |
| With LED display              | Yes   |
| With other analog output      | No  |

## OPTICAL DATA

|                          |                        |
|--------------------------|------------------------|
| Background suppression   | Yes                    |
| Laser class              | 2                      |
| Laser protection class   | Class 1                |
| Light beam form          | Point                  |
| Light source             | Laser diode, red light |
| Triangulation            | Background suppression |
| Wavelength of the sensor | 670 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!