

**PT140470**
**LASER SENSORS • DIFFUSE REFLECTION SENSORS WITH BACKGROUND SUPPRESSION**

sensor laser, diffuse-reflection sensor, 27x16x12mm, Sn: 22-130, 11-30V DC, 2x PNP NC/NO, Connector M8 4pin, IP67, Plastic ASA+PMMA, 2kHz, Background suppression, Laser diode, red light, Point, Manual adjustment, test input


**MECHANICAL FEATURES**

|                                             |                  |
|---------------------------------------------|------------------|
| Ambient temperature                         | -10 °C ... 50 °C |
| Degree of protection (IP)                   | IP67             |
| Design                                      | Cuboid           |
| Housing material                            | Plastic ASA      |
| Material of optical surface                 | PMMA             |
| Max. tightening torque                      | 0.5 Nm           |
| Reflector included in the scope of delivery | -                |
| Sensor height                               | 27 mm            |
| Sensor length                               | 16.3 mm          |
| Sensor width                                | 12 mm            |
| Volume                                      | Small            |

**ELECTRICAL FEATURES**

|                               |                     |
|-------------------------------|---------------------|
| Adjustment range              | 22 mm ... 130 mm    |
| Analog output 0 mA ... 20 mA  | -                   |
| Analog output 0 V ... 10 V    | -                   |
| Analog output -10 V ... +10 V | -                   |
| Analog output 4 mA ... 20 mA  | -                   |
| Function test                 | +                   |
| Laser power                   | 1 mW                |
| Max. switching distance       | 130 mm              |
| No-load current               | 30 mA               |
| Number of pins                | 4                   |
| Number of switching outputs   | 2                   |
| Operating voltage             | 11 V ... 30 V       |
| Rated switching current       | 100 mA              |
| Rated switching distance      | 130 mm              |
| Relative repeat accuracy      | 0.2 mm              |
| Reverse polarity protection   | +                   |
| Scanning function             | Light-/dark-on mode |
| Sensing range                 | 22 mm ... 130 mm    |
| Setting procedure             | Manual adjustment   |
| Short-circuit protection      | +                   |

## ELECTRICAL FEATURES

|                               |                                               |
|-------------------------------|-----------------------------------------------|
| Switching frequency           | 2000 Hz                                       |
| Type of electrical connection | Connector M8                                  |
| Type of switching function    | Normally closed contact/normally open contact |
| Type of switching output      | PNP                                           |
| Voltage drop                  | 1.8 V                                         |
| Voltage type                  | DC                                            |
| With LED display              | +                                             |
| With LED display (operation)  | +                                             |
| With LED display (signal)     | +                                             |
| With other analog output      | -                                             |
| With time function            | -                                             |

## OPTICAL FEATURES

|                          |                        |
|--------------------------|------------------------|
| Light source             | Laser diode, red light |
| Light spot               | 0.03 mm <sup>2</sup>   |
| Wavelength of the sensor | 650 nm                 |
| Triangulation            | Background suppression |
| Resolution               | 0.2 mm                 |
| Light beam form          | Point                  |
| Background suppression   | +                      |
| Aperture                 | 2.5 mm                 |
| Laser focus distance     | 40 mm                  |
| Laser class              | EV006627               |

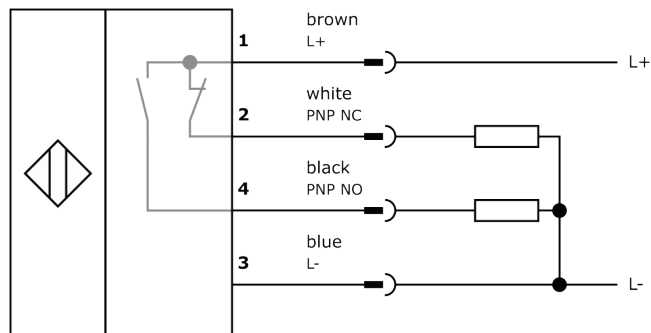
## Other

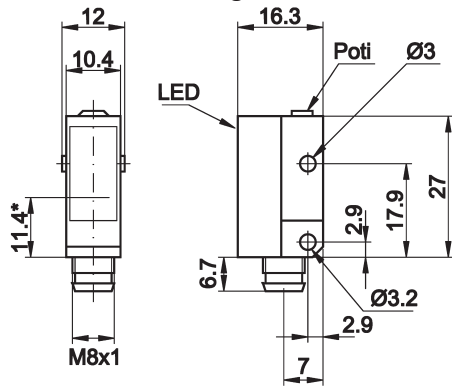
|                      |                           |
|----------------------|---------------------------|
| Packaging dimensions | 77.0mm x 25.0mm x 123.0mm |
| Shipping weight      | 0.02kg                    |
| Tariff code          | 85365019                  |

## Classification

|                   |          |
|-------------------|----------|
| ipf product group | 160      |
| eClass 8.0        | 27270904 |
| eClass 9.0        | 27270904 |
| eClass 9.1        | 27270904 |
| ETIM-5.0          | EC002719 |
| ETIM-6.0          | EC002719 |
| ETIM-7.0          | EC002719 |

## Connection



**Dimensional drawing**

\* Senderachse

**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.

LED lighting systems can generate intensive UV radiation, which can damage your eyes in case of improper use. The manufacturer cannot be held responsible for damages that result from improper use or connection.