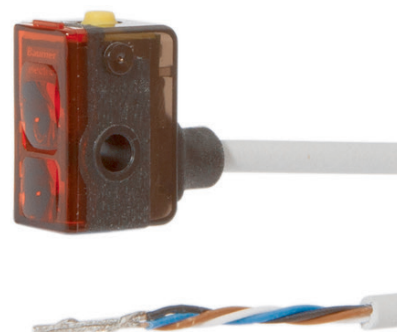


**OTQ90105**
**OPTICAL SENSORS • DIFFUSE REFLECTION SENSORS WITH BACKGROUND SUPPRESSION**

sensor optical, diffuse-reflection sensor, 16x16x9,2mm, Sn: 2-60, 10-30V DC, 1x PNP Programmable/configurable, Cable 2m PVC, IP65, PMMA+PMMA, 1kHz, Background suppression, Polarity free red light, Point, Teach-In


**MECHANICAL FEATURES**

|                                             |                     |
|---------------------------------------------|---------------------|
| Ambient temperature                         | -20 °C ... 50 °C    |
| Cable length                                | 2 m                 |
| Degree of protection (IP)                   | IP65                |
| Design                                      | Cuboid              |
| Housing material                            | PMMA                |
| Material of cable sheath                    | PVC                 |
| Material of optical surface                 | PMMA                |
| Max. tightening torque                      | 0.2 Nm              |
| Number of cores                             | 4                   |
| Reflector included in the scope of delivery | -                   |
| Sensor height                               | 16.2 mm             |
| Sensor length                               | 15.8 mm             |
| Sensor width                                | 9.2 mm              |
| Volume                                      | Small               |
| Wire cross section                          | 0.1 mm <sup>2</sup> |

**ELECTRICAL FEATURES**

|                               |                     |
|-------------------------------|---------------------|
| Adjustment range              | 2 mm ... 60 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  | -                   |
| Decay time                    | 0.5 ms              |
| Interference suppression      | +                   |
| Max. switching distance       | 60 mm               |
| No-load current               | 25 mA               |
| Number of switching outputs   | 1                   |
| Operating voltage             | 10 V ... 30 V       |
| Rated switching current       | 100 mA              |
| Rated switching distance      | 60 mm               |
| Response time                 | 0.5 ms              |
| Reverse polarity protection   | +                   |
| Scanning function             | Light-/dark-on mode |

## ELECTRICAL FEATURES

|                                       |                           |
|---------------------------------------|---------------------------|
| Sensing range                         | 2 mm ... 60 mm            |
| Setting procedure                     | Teach-In                  |
| Short-circuit protection              | +                         |
| Switching frequency                   | 1000 Hz                   |
| Type of electrical connection         | Cable                     |
| Type of switching function            | Programmable/configurable |
| Type of switching output              | PNP                       |
| Voltage drop                          | 1.8 V                     |
| Voltage type                          | DC                        |
| With LED display                      | +                         |
| With LED display (functional reserve) | +                         |
| With LED display (reception)          | +                         |
| With LED display (signal)             | +                         |
| With other analog output              | -                         |
| With time function                    | -                         |

## OPTICAL FEATURES

|                           |                         |
|---------------------------|-------------------------|
| Light source              | Polarity free red light |
| Wavelength of the sensor  | 660 nm                  |
| Triangulation             | Background suppression  |
| Light beam form           | Point                   |
| Background suppression    | +                       |
| Small light beam diameter | +                       |

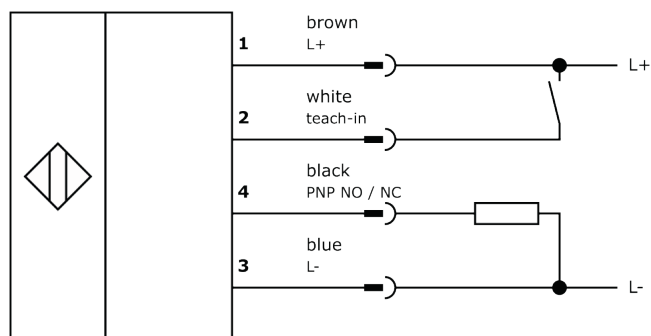
## Other

|                      |                           |
|----------------------|---------------------------|
| Packaging dimensions | 77.0mm x 25.0mm x 123.0mm |
| Shipping weight      | 0.04kg                    |
| Tariff code          | 85365019                  |

## Classification

|                   |          |
|-------------------|----------|
| ipf product group | 100      |
| 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

### 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.