

**OT059176****OPTICAL SENSORS • DIFFUSE REFLECTION SENSORS WITH INTENSITY DIFFERENTIATION**

sensor optical, diffuse-reflection sensor, M5x0.5 36long, Sn: 30-100, 10-30V DC, 1x PNP NO (NO), IO-Link, Cable connector M8 4pin 0.3m PUR (Polyurethane), IP67, V2A+PMMA, 1kHz, Polarity free red light, Point

**MECHANICAL FEATURES**

|                                             |                        |
|---------------------------------------------|------------------------|
| Ambient temperature                         | -25 °C ... 65 °C       |
| Cable length                                | 0.3 m                  |
| Degree of protection (IP)                   | IP67                   |
| Design                                      | Cylinder, screw-thread |
| Housing material                            | Stainless steel (V2A)  |
| Material of cable sheath                    | PUR (Polyurethane)     |
| Material of optical surface                 | PMMA                   |
| Max. tightening torque                      | 1 Nm                   |
| Number of cores                             | 4                      |
| Reflector included in the scope of delivery | -                      |
| Sensor length                               | 36 mm                  |
| Thread length                               | 30 mm                  |
| Thread pitch                                | 0.5 mm                 |
| Thread size, metric                         | 5                      |
| Wire cross section                          | 0.14 mm <sup>2</sup>   |
| With interchangeable lens                   | -                      |

**ELECTRICAL FEATURES**

|                             |                    |
|-----------------------------|--------------------|
| Alarm output                | -                  |
| Decay time                  | 0.5 ms             |
| Equipment protection class  | Protection class 3 |
| High repeat accuracy        | -                  |
| Interference suppression    | -                  |
| IO-Link compatible          | +                  |
| Max. switching distance     | 120 mm             |
| No-load current             | 12 mA              |
| Number of pins              | 4                  |
| Number of switching outputs | 1                  |
| Operating voltage           | 10 V ... 30 V      |
| Pre-failure message         | -                  |
| Rated switching current     | 100 mA             |
| Residual ripple             | 10 %               |
| Response time               | 0.5 ms             |

## ELECTRICAL FEATURES

|                                                |                            |
|------------------------------------------------|----------------------------|
| Reverse polarity protection                    | +                          |
| Scanning function                              | Light switching            |
| Sensing range                                  | 30 mm ... 100 mm           |
| Short-circuit protection                       | +                          |
| Suitable for safety functions                  | -                          |
| Switching frequency                            | 1000 Hz                    |
| Type of electrical connection                  | Cable connector M8         |
| Type of switching function                     | Normally open contact (NO) |
| Type of switching output                       | PNP                        |
| Voltage drop                                   | 2 V                        |
| Voltage type                                   | DC                         |
| With communication interface, RS-232           | -                          |
| With LED display                               | +                          |
| With monitoring function of downstream devices | -                          |
| With other analog output                       | -                          |
| With restart lock                              | -                          |
| With time function                             | -                          |

## OPTICAL FEATURES

|                           |                         |
|---------------------------|-------------------------|
| Light source              | Polarity free red light |
| Wavelength of the sensor  | 630 nm                  |
| Light exit                | Axial                   |
| Light beam form           | Point                   |
| Small light beam diameter | -                       |
| Line scanner              | -                       |

## OTHER FEATURES

|                     |   |
|---------------------|---|
| Feeding technology  | + |
| For gloss queries   | - |
| Is line scan camera | - |

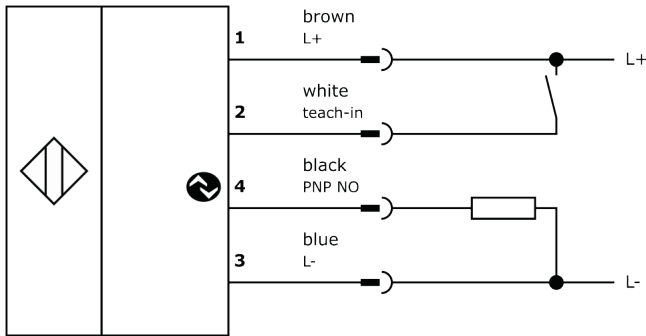
## Other

|                      |                      |
|----------------------|----------------------|
| Packaging dimensions | 180mm x 10mm x 210mm |
| Shipping weight      | 0.02kg               |
| Tariff code          | 85365019             |

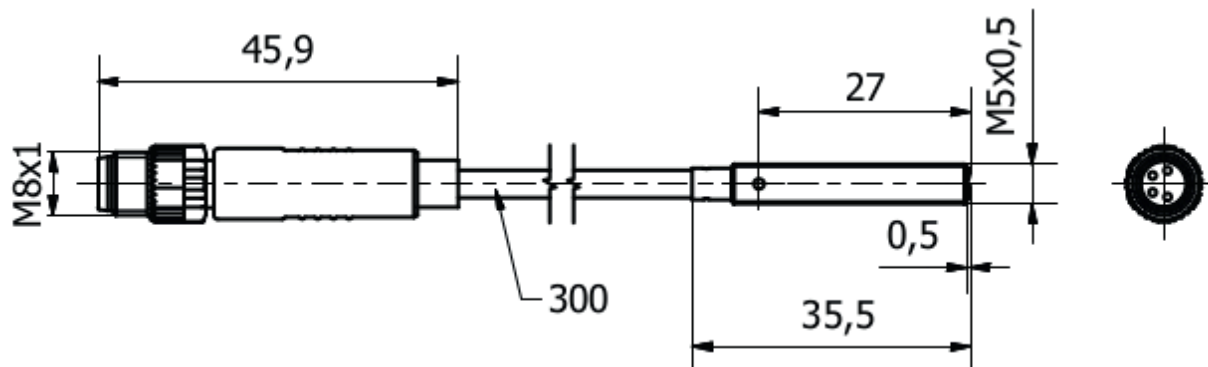
## Classification

|                   |          |
|-------------------|----------|
| ipf product group | 100      |
| eClass 8.0        | 27270903 |
| eClass 9.0        | 27270903 |
| eClass 9.1        | 27270903 |
| ETIM-5.0          | EC001821 |
| ETIM-6.0          | EC001821 |
| ETIM-7.0          | EC001821 |

## Connection



## Dimensional drawing



## Installation



Mounting / installation may only be carried out by a qualified electrician!

## Disposal



## Software

Any software, drivers or IODD files that may be required to operate your device can be downloaded free of charge from our homepage: [www.ipf-electronic.com](http://www.ipf-electronic.com)

## 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.