

## OR180126

### Optical sensors • Retro-reflective sensors

sensor optical, reflective, M18x1 64long, Polarized red light, Point, Sn: 2000, 10-30V DC, PNP NO (NO), Connector M12 3pin, IP67, Brass Chrome-plated+Glass, With polarizing filter

including 2x Nut, 2x Toothed washer



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.

#### Electrical features

Response/decay time	0.5ms
Display	LED display
Type of switching function	Normally open contact (NO)
Type of electrical connection	Connector M12
Type of switching output	PNP
Rated switching current	200mA
Readiness delay	20ms
Short-circuit protection	Yes
No-load current	15mA
Number of pins	3
Switching distance	0 - 2000mm
Switching frequency	1000Hz
Voltage drop	2V
Clock frequency of the transmitter	15kHz
Scanning function	Dark switching
Reverse polarity protection	Yes
Decay time	0.5ms
Operating voltage (DC)	10 - 30V
With polarizing filter	Yes

### Mechanical features

Design	Cylinder, screw-thread
Diameter	18mm
Thread length	42mm
Thread pitch	1mm
Length	63.5mm
Maximum tightening torque	20Nm
Surface	Chrome-plated
Degree of protection (IP)	IP67
Active area material of sensor	glass
Housing material	Brass
Thread dimension	M18
Ambient temperature	-25 - 55°C

### Optical features

Light source	Polarized red light
Light beam form	Point
Wavelength of the sensor	660nm

### Other features

Reference medium / object	AO000007
Ambient temperature	-25 - 55°C

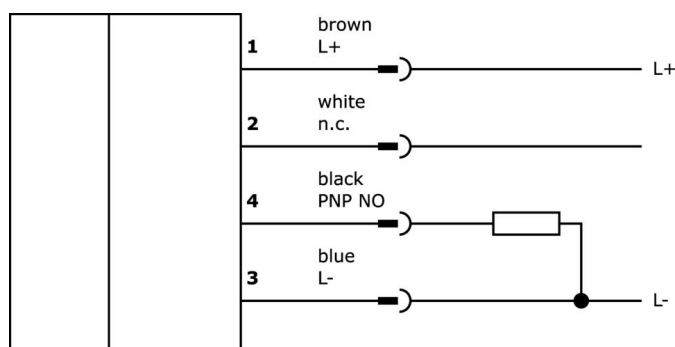
### Classification

ETIM 8	EC002717 Retro-reflective sensor
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### More

IPF Product Group	100 optical sensors
packaging dimensions	210 x 185 x 20 mm
gross weight	66 g
Customs tariff number	85365019
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

### Connection



#### 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.

For suitable connection and mounting accessories, please refer to our website [www.ipf-electronic.com](http://www.ipf-electronic.com).

#### Dimensional drawing

