

## OE120126

### Optical sensors • Through-beam sensors receivers

Sensor Optical, through-beam sensor, receiver, M12x1 60long, Sn: 10m, 10-35V DC, PNP NO, M12 connector, IP67, chrome-plated brass+glass, red light unpolarized

including Nut, 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	0.5 ms
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	200 mA
Readiness delay	20 ms
Short-circuit protection	Yes
No-load current	15 mA
No-load current, receiver	15 mA
Residual ripple	20 %
Switching distance	0 - 10000 mm
Switching frequency	1000 Hz
Voltage drop	2 V
Scanning function	Dark switching
Reverse polarity protection	Yes
Decay time	0.5 ms
Operating voltage (DC)	10 - 35 V

**Mechanical features**

Design	Cylinder, screw-thread
Thread length	41 mm
Thread pitch	1 mm
Length	60 mm
Maximum tightening torque	10 Nm
Surface	Chrome-plated
Degree of protection (IP)	IP67
Active area material of sensor	glass
Housing material	Brass
Thread dimension	M12
Ambient temperature	-25 - 55 °C

**Optical features**

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

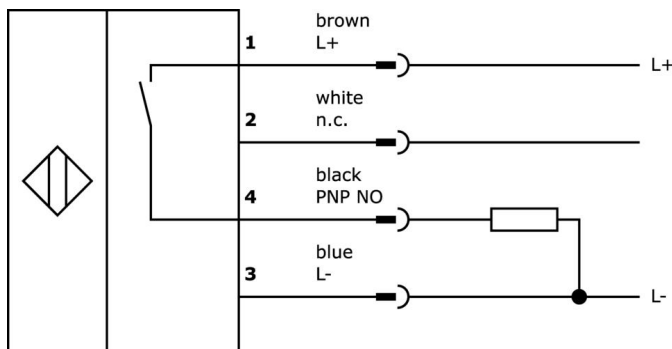
**Classification**

ETIM 8	EC002716 Through-beam photoelectric sensor
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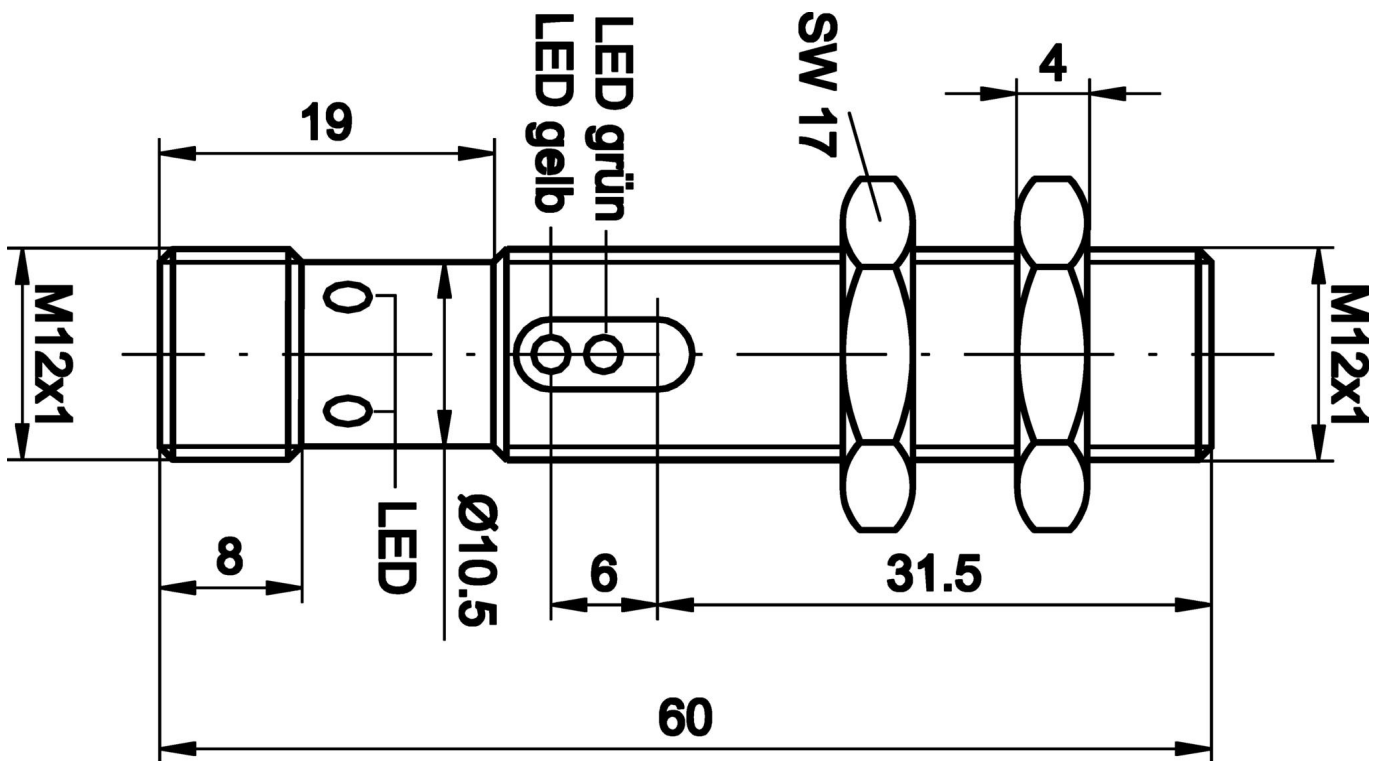
**More**

IPF Product Group	100 optical sensors
packaging dimensions	210 x 180 x 15 mm
gross weight	37 g
Customs tariff number	85365019
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

**Connection**



**Dimensional drawing**



**Extract accessories program**

**AY000115**



accessories sensor, Fixture kit, Metal, ball joint

**AY000162**



Accessories, magnetic,  $\varnothing 43\text{mm}$ , neodymium-iron-boron, inside thread M5, rubber

**VK003021**



Cable socket, Angular, Suitable for self-assembly, Screw connection,  $\varnothing 3-6.5\text{mm}$ , 4A, 60V, -25-90°C, M12 Female (socket) 5pin, IP67, PBT

**VK003025**



Cable socket, Straight, Suitable for self-assembly, Screw connection,  $\varnothing 3-6.5\text{mm}$ , 4A, 60V, -25-90°C, M12 Female (socket) 5pin, IP67, PBT

**AY000159**



accessories sensor, Mounting pipe,  $\varnothing 12\text{mm}$  200long, Aluminum Anodised

**VK200021**



Connection cable, 2m, M12 Female (socket) 3pin Angular, Free conductor end,  $3 \times 0.34\text{mm}^2$ , PUR (Polyurethane),  $\varnothing 4.3\text{mm}$ , 250V, -30-90°C, IP67, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-free

**VK200025**



Connection cable, 2m, M12 Female (socket) 3pin Straight, Free conductor end,  $3 \times 0.34\text{mm}^2$ , PUR (Polyurethane),  $\varnothing 4.3\text{mm}$ , 250V, -30-90°C, IP67, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-free

**AO000095**



accessories optical, Cleaning air nozzle, Metal

**AY000025**



accessories, Hexagon nut, M12x1, Wrench size 17mm, Brass Nickel-plated

You can find further accessories on our homepage

**Installation**

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

**Disposal**

WEEE number according to § 6 para. 3  
ElektroG: 40951076

**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.