

# OS126003

## High performance light barriers • Transmitter unamplified

High-power photoelectric sensor transmitter, M12x1 45long, normal output (40mW), 12°, connection to amplifier, cable tail 15m PVC, IP67, nickel-plated (ntd) brass+plastic

including Nut



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

Type of electrical connection	Cable
Power	0.04 W
Connection to amplifier	Yes

### Mechanical features

Number of cores	2
Conductor cross-section	0.34 mm <sup>2</sup>
Design	Cylinder, screw-thread
Thread length	26 mm
Thread pitch	1 mm
Cable length	15 m
Storage temperature	-40 - 80 °C
Length	45 mm
Surface	nickel-plated
Shock resistance	30 g
Degree of protection (IP)	IP67
Vibration resistance	55 Hz
Active area material of sensor	Plastic
Housing material	Brass
Material of cable sheath	Plastic (PVC)
Thread dimension	M12
Ambient temperature	-25 - 60 °C
Line diameter	3.8 mm

**Optical features**

Light source	Infrared light
Light beam form	Point
Transmitting power	Normal power (40mW)
Wavelength of the sensor	880 nm
Angle of beam spread	12 °

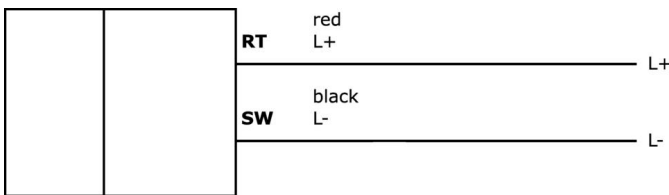
**Classification**

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

IPF Product Group	101 high performance through-beam sensors and amplifiers
packaging dimensions	183 x 102 x 51 mm
gross weight	380 g
Customs tariff number	85365019
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

**Connection**



**Extract accessories program**

**LS100916**



fiber optic barrier, 1m, head:  
Stainless steel 29long Ø6 Ø9, Light  
exit Axial, conductor:  
Glassfiber+Silicone, end piece:  
M12x1 Brass, -40-180°C

**LS102911**



fiber optic barrier, 1m, head:  
Stainless steel 37long Ø4 Ø8, Light  
exit Axial, conductor:  
Glassfiber+Stainless steel, end  
piece: M12x1 Brass, -40-300°C

**AY000115**



accessories sensor, Fixture kit,  
Metal, ball joint

**AY000162**



Accessories, magnetic, Ø43mm,  
neodymium-iron-boron, inside  
thread M5, rubber

**AO000293**



accessories optical, Infrared  
spotfinder, Plastic, With LED  
display, Signal tone

**AY000159**



accessories sensor, Mounting  
pipe, Ø12mm 200long, Aluminum  
Anodised

**LS102916**



fiber optic barrier, 1m, head:  
Stainless steel 29long Ø6 Ø9, Light  
exit Axial, conductor:  
Glassfiber+Stainless steel, end  
piece: M12x1 Brass, -40-300°C

**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.