

## PE180424

### Laser sensors • Through-beam sensors receivers

Sensor laser, through-beam sensor receiver, M18x1 82long, Sn: 60m, 10-30V DC, PNP exclusive-OR, M12 plug connector 4-pin, IP67, brass nickel-plated+PMMA, laser diode, red light

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

Response/decay time	0.33 ms
Display	LED display
Type of switching function	Exclusive-OR
Type of electrical connection	Connector M12
Type of switching output	PNP
Rated switching current	100 mA
Setting procedure	Manual adjustment
Short-circuit protection	Yes
No-load current	30 mA
No-load current, receiver	30 mA
Number of pins	4
Switching distance	0 - 60000 mm
Switching frequency	1500 Hz
Voltage drop	2 V
Scanning function	Light-/dark-on mode
Reverse polarity protection	Yes
Decay time	0.33 ms
Operating voltage (DC)	10 - 30 V

**Mechanical features**

Design	Cylinder, screw-thread
Thread length	43 mm
Thread pitch	1 mm
Storage temperature	70 °C
Length	81.5 mm
Surface	nickel-plated
Degree of protection (IP)	IP67
Active area material of sensor	Plastic (PMMA)
Housing material	Brass
Thread dimension	M18
Ambient temperature	-10 - 50 °C

**Optical features**

Light source	Laser diode, red light
Light beam form	Point
Wavelength of the sensor	650 nm

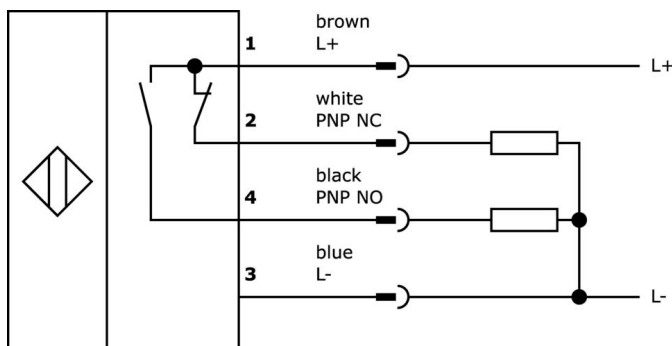
**Classification**

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

IPF Product Group	160 laser sensor
packaging dimensions	123 x 77 x 25 mm
gross weight	70 g
Customs tariff number	85365019
WEEE number	40951076
POP-compliant	Yes
Reach-compliant	Yes
RoHS-compliant	Yes

**Connection**



**Extract accessories program**

**AY000117**



accessories sensor, Fixture kit,  
Metal, ball joint

**AY000162**



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

**VK030F23**



Connection cable, 0.3m, M12  
socket 4-pin angular, M12  
connector 4-pin straight, 4x0.  
34mm<sup>2</sup>, PUR (polyurethane), IP67,  
LED, suitable for trailing chain and  
torsion resistant, oils and cooling  
lubricants, welding area, silicone-  
free

**VK030F26**



Connection cable, 0.3m, M12  
socket 4-pin straight, M12  
connector 4-pin straight, 4x0.  
34mm<sup>2</sup>, PUR (polyurethane), IP67,  
LED, suitable for trailing chain and  
torsion resistant, oils and cooling  
lubricants, welding area, silicone-  
free

**VK003020**



Cable socket, angular, self-  
assembly, screw connection, Ø3-6.  
5mm, 4A, 240V, -25-90°C, M12  
socket 4-pin, IP67, PBT

**VK003024**



Cable socket, Straight, Suitable for  
self-assembly, Screw connection,  
Ø3-6.5mm, 4A, 240V, -25-90°C,  
M12 Female (socket) 4pin, IP67,  
PBT

**VK205321**



Connection cable, 2m, M12  
Female (socket) 4pin Angular, Free  
conductor end, 4x0.34mm<sup>2</sup>, PUR  
(Polyurethane), Ø5.5mm, 250V, -  
25-90°C, IP67, Shielded, Suitable  
for trailing chain and torsion  
resistant, Oil and cooling  
lubricants, Welding area, Silicon...

**VK205325**



Connection cable, 2m, M12  
Female (socket) 4pin Straight, Free  
conductor end, 4x0.34mm<sup>2</sup>, PUR  
(Polyurethane), Ø5.5mm, 250V, -  
25-90°C, IP67, Shielded, Suitable  
for trailing chain and torsion  
resistant, Oil and cooling  
lubricants, Welding area, Silico...

**AP000015**



accessories laser, Mounting angle  
bracket, 28x40x36mm, Precision  
bracket, Aluminum

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.