

## PE180120

### Laser sensors • Through-beam sensors receivers

sensor laser, Through-beam sensor receiver, M18x1 90long, aperture Ø1mm, Sn: 5m, 12-32V DC, PNP/NPN Push-pull, 0-10V, Connector M12 4pin, IP67, Brass Nickel-plated+Plastic, Polarity free red light

including 2x 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

Resolution	0.02mm
Type of switching function	Schließer (NO bei PNP) Öffner (NC bei NPN)
Type of analog output	0 - 10V
Type of electrical connection	Connector M12
Type of switching output	Push-pull
Rated switching current	100mA
Short-circuit protection	Yes
No-load current	30mA
No-load current, receiver	30mA
Number of pins	4
Switching distance	0 - 5000mm
Switching frequency	5000Hz
Voltage drop	2V
Scanning function	Light-/dark-on mode
Reverse polarity protection	Yes
Absolute repeat accuracy	0.02mm
Operating voltage (DC)	12 - 32V

### Mechanical features

Design	Cylinder, screw-thread
Aperture diameter	1mm
Thread length	60mm
Thread pitch	1mm
Storage temperature	85°C
Length	90mm
Surface	nickel-plated
Degree of protection (IP)	IP67
Active area material of sensor	Plastic
Housing material	Brass
Thread dimension	M18
Ambient temperature	-20 - 50°C

### Optical features

Light source	Polarity free red light
Light beam form	Point
Wavelength of the sensor	670nm

### Other features

Scope of delivery	Receiver
Ambient temperature	-20 - 50°C
Version	Through-beam sensor receiver

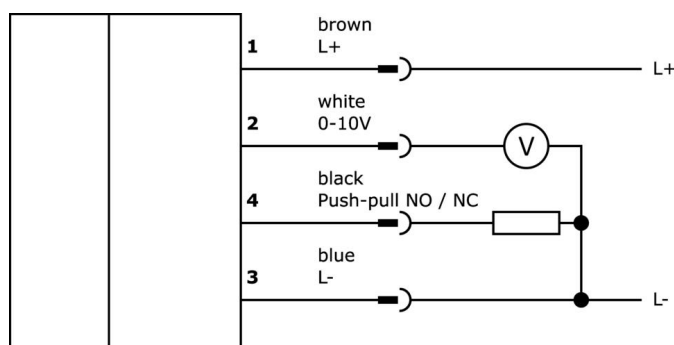
### Classification

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	100 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

