

PS180020

Laser sensors • Through-beam sensors transmitters

sensor laser, Through-beam sensor transmitter, M18x1 90long, aperture Ø1mm, Sn: 5m, 12-32V DC, Connector M12 4pin, IP67, Brass Nickel-plated+Plastic PK, Laser diode, 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

Type of electrical connection	Connector M12
Laser power	1mW
No-load current	50mA
No-load current, transmitter	50mA
Number of pins	4
Switching distance	0 - 5000mm
Reverse polarity protection	Yes
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 (PK)
Housing material	Brass
Thread dimension	M18
Ambient temperature	-20 - 50°C

Optical features

Laser class	Class 1
Light source	Laser diode, red light
Light beam form	Point
Wavelength of the sensor	670nm
Light spot diameter at focal point	0.5mm

Other features

Features	with test input
Scope of delivery	Transmitter
Ambient temperature	-20 - 50°C
Version	Through-beam sensor transmitter

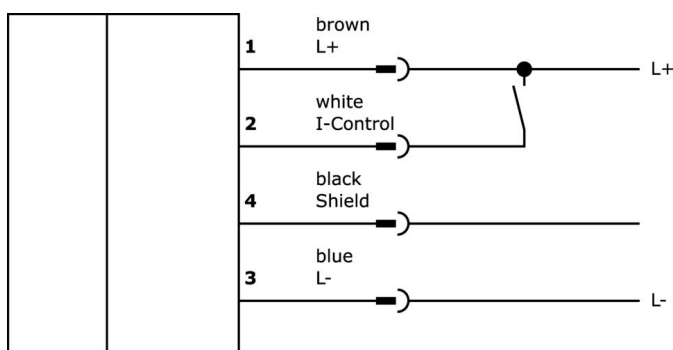
Classification

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	90 g
Customs tariff number	85365019
WEEE number	40951076
POP-compliant	Yes
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.

Dimensional drawing