

PS180023

Laser sensors • Through-beam sensors transmitters

Sensor laser, through-beam sensor transmitter, M18x1 90long, aperture 0.5x4mm, Sn: 3m, 12-32V diagnostic coverage, M12 plug connector 4-pin, IP67, nickel-plated (n-pltd) brass+glass, 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

Display	LED display
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 - 3000mm
Reverse polarity protection	Yes
Operating voltage (DC)	12 - 32V

Mechanical features

Design	Cylinder, screw-thread
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	glass
Housing material	Brass
Thread dimension	M18
Ambient temperature	-20 - 50°C

Optical features

Aperture width	4mm
Aperture length	0.5mm
Laser class	Class 1
Light source	Laser diode, red light
Light beam form	Line
Wavelength of the sensor	670nm
Light spot diameter at focal point	0.8mm

Other features

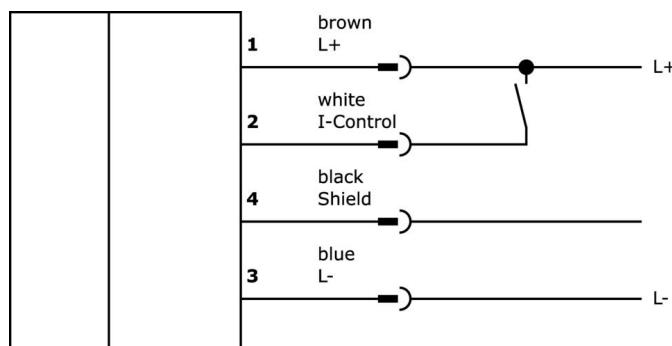
Features	with test input
Scope of delivery	Transmitter
Important note	Die beiliegenden Warnschilder sind nach der Unfallvorschrift für Laserstrahlung (BGV B 2) vom 01. 01.1993 gut sichtbar in der Nähe des Laserstrahlaustritts anzubringen.
Ambient temperature	-20 - 50°C
Version	Through-beam sensor transmitter

Classification

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

More

IPF Product Group	160 laser sensor
packaging dimensions	125 x 70 x 40 mm
gross weight	80 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