

PE12F001

Laser sensors • Through-beam sensors receivers

Laser sensor, through beam receiver, M12x1 80 long, aperture Ø2mm, Sn: 5m, 12-32V DC, PNP/NPN push-pull, 0-10V, M12-connector 4 pin, IP67, nickel plated brass+glass, laser diode, red light

including 2x Nut



Optical sensors operate without contact. They detect objects, regardless of their nature (e.g. shape, color, surface structure, material). The basic mode of operation is based on the transmission and reception of light. Three variants are distinguished:

1. The through-beam sensor consists of two separate devices, a transmitter and a receiver, which are aligned with each other. When the light beam between the two devices is interrupted, the switching output integrated in the receiver changes its state.
2. In the case of the reflex light barrier, the transmitter and receiver are located in one device. The transmitted light beam is reflected onto the receiver by a reflector to be mounted opposite. As soon as the light beam is interrupted, the switching output integrated in the device changes its state.
3. With the diffuse-reflection sensor, the transmitter and receiver are located in one device. The transmitted light beam is reflected by the object to be detected. As soon as the receiver detects the reflected light, the switching output integrated in the device changes its state.

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
Laser power	1mW
No-load current	30mA
No-load current, receiver	30mA
Number of pins	4
Switching distance	0 - 5000mm
Switching frequency	25000Hz
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	46mm
Thread pitch	1mm
Storage temperature	-20 - 85°C
Length	80mm
Surface	nickel-plated
Degree of protection (IP)	IP67
Active area material of sensor	glass
Housing material	Brass
Heavy soiling	Yes
Thread dimension	M12
Ambient temperature	-20 - 50°C

Optical features

Aperture width	2mm
Filter	Interference filter
Light source	Laser diode, red light
Light beam form	Point

Other features

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

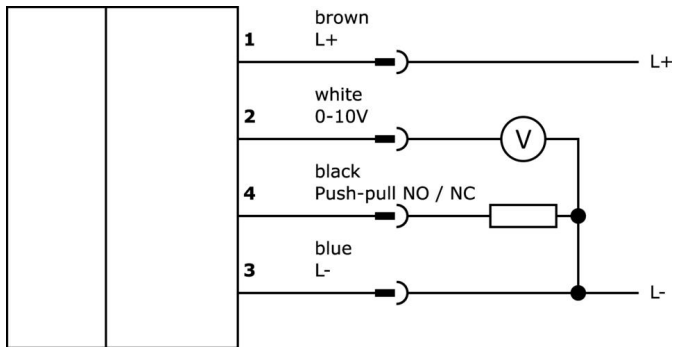
Classification

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

More

IPF Product Group	160 laser sensor
packaging dimensions	123 x 77 x 25 mm
gross weight	60 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

