

## PR180428

### Laser sensors • Retro-reflective sensors

sensor laser, reflective, M18x1 94long, Laser diode, red light, Point, Sn: 100-9000, 10-30V DC, PNP/NPN Anticoincidence, Connector M12 4pin, IP67, Brass Chrome-plated+PMMA, With polarizing filter

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 switching function	Exclusive-OR
Type of electrical connection	Connector M12
Type of switching output	PNP/NPN
Rated switching current	100mA
Short-circuit protection	Yes
Laser power	1mW
No-load current	35mA
Number of pins	4
Switching distance	100 - 9000mm
Switching frequency	1500Hz
Voltage drop	2V
Scanning function	Light-/dark-on mode
Reverse polarity protection	Yes
Operating voltage (DC)	10 - 30V
With polarizing filter	Yes

**Mechanical features**

Design	Cylinder, screw-thread
Diameter	18mm
Thread length	42mm
Thread pitch	1mm
Storage temperature	-25 - 70°C
Length	93.5mm
Surface	Chrome-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**

Laser class	Class 1
Light source	Laser diode, red light
Light beam form	Point
Wavelength of the sensor	650nm

**Other features**

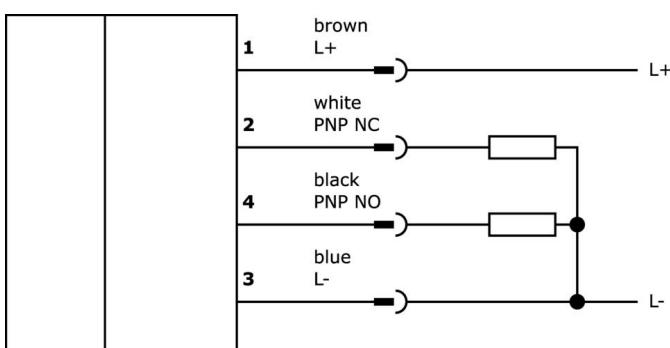
Ambient temperature	-10 - 50°C
---------------------	------------

**Classification**

ETIM 8	EC002717 Retro-reflective sensor
--------	----------------------------------

**More**

IPF Product Group	160 laser sensor
packaging dimensions	123 x 77 x 25 mm
gross weight	80 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).