

PR98E166

Laser sensors • Retro-reflective sensors

sensor laser, reflective, 44x20x11mm, Laser diode, red light, Point, Manual adjustment, Sn: 300-10000, 10-30V DC, PNP Programmable/configurable, Connector M8 4pin, IP67, PBT+PMMA, With polarizing filter



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

Response/decay time	0.25ms
Display	LED display
Type of switching function	Programmable/configurable
Type of electrical connection	Connector M8
Type of switching output	PNP
Rated switching current	100mA
Setting procedure	Manual adjustment
Short-circuit protection	Yes
No-load current	35mA
Number of pins	4
Reaction time	0.25ms
Residual ripple	10%
Switching distance	300 - 10000mm
Switching frequency	2000Hz
Voltage drop	1.5V
Scanning function	Light-/dark-on mode
Reverse polarity protection	Yes
Decay time	0.25ms
Absolute repeat accuracy	1mm
Operating voltage (DC)	10 - 30V
With polarizing filter	Yes

Mechanical features

Design	Cuboid
Width	11mm
Height	43.5mm
Storage temperature	-25 - 70°C
Length	20mm
Degree of protection (IP)	IP67
Volume	Small
Active area material of sensor	Plastic (PMMA)
Housing material	PBT
Ambient temperature	-25 - 55°C

Optical features

Laser class	Class 1
Light source	Laser diode, red light
Light beam form	Point
Min. object size	6mm
Wavelength of the sensor	650nm

Other features

Ambient temperature	-25 - 55°C
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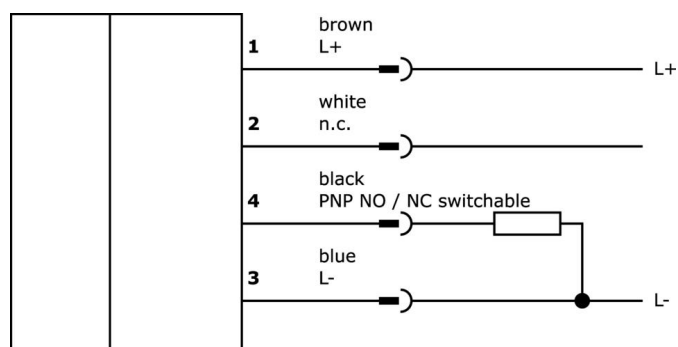
Classification

ETIM 8	EC002717 Retro-reflective sensor
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More

IPF Product Group	160 laser sensor
packaging dimensions	123 x 77 x 25 mm
gross weight	34 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

