

## PY98C994

### Laser sensors • Through-beam sensors

sensor laser, Light barrier, 44x20x11mm, Sn: 30m, 10-30V DC, PNP Programmable/configurable, Connector M8 4pin PUR (Polyurethane), IP67, PBT+PMMA, Laser diode, red light



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	45mA
No-load current, receiver	30mA
No-load current, transmitter	15mA
Number of pins	4
Residual ripple	1.5%
Switching distance	0 - 30000mm
Switching frequency	2000Hz
Scanning function	Light-/dark-on mode
Reverse polarity protection	Yes
Decay time	0.25ms
Operating voltage (DC)	10 - 30V

**Mechanical features**

Design	Cuboid
Width	10.8mm
Height	43.5mm
Storage temperature	-25 - 70°C
Length	19.5mm
Shock resistance	30g
Degree of protection (IP)	IP67
Volume	Small
Active area material of sensor	Plastic (PMMA)
Housing material	PBT
Material of cable sheath	Plastic (PUR)
Ambient temperature	-25 - 55°C

**Optical features**

Laser class	Class 1
Light source	Laser diode, red light
Light beam form	Point

**Other features**

Scope of delivery	Transmitter and receiver
Ambient temperature	-25 - 55°C
Version	Light barrier

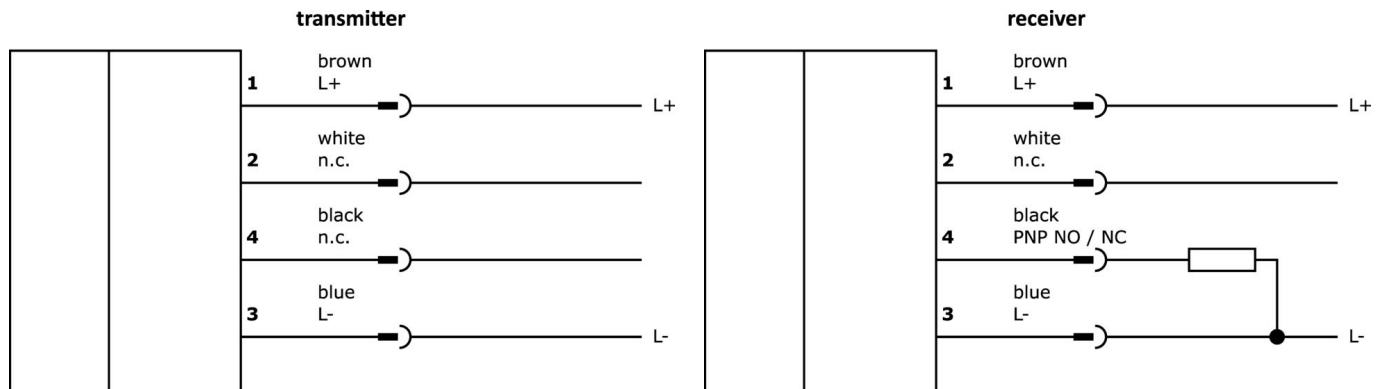
**Classification**

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	40 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](http://www.ipf-electronic.com).

Dimensional drawing

