

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

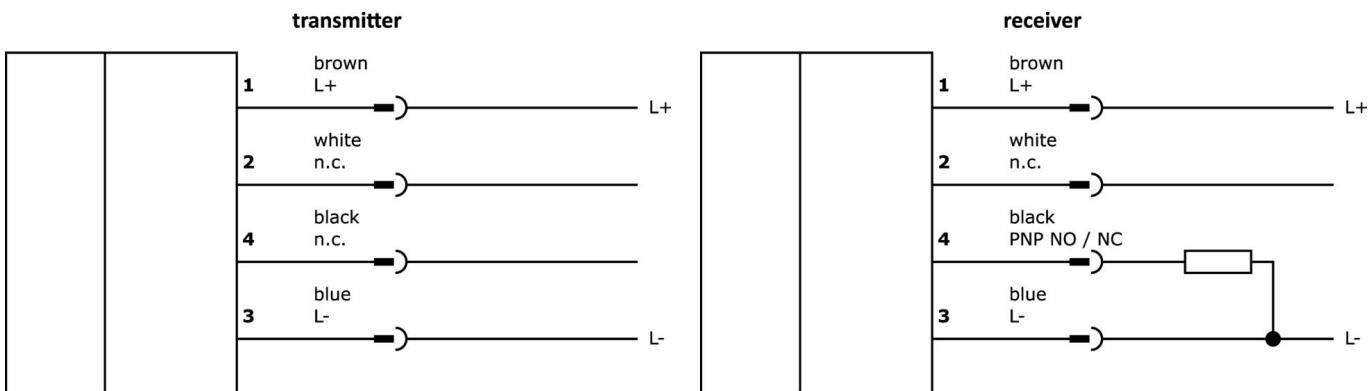
| | |
|---------------------|--------------------------|
| Scope of delivery | Transmitter and receiver |
| Ambient temperature | -25 - 55°C |
| Version | Light barrier |

Classification

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

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.

Dimensional drawing

