

## PT98E294

### Laser sensors • Distance measurement

sensor laser, diffuse-reflection sensor, 50x239x96mm, Sn:200-30000mm, Phase comparison measurement, 10-30V DC, PNP, 4-20mA, Plug-in connection 12pin, IP65, Aluminum Anodised, RS-232, 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

Type of analog output	4 - 20mA
Type of electrical connection	Connector Binder723
Type of switching output	PNP
No-load current	100mA
Number of pins	12
Measurement principle	Phase comparison measurement
Supported communication interface	RS232
Operating voltage (DC)	10 - 30V
Measuring range	200 - 30000mm

#### Mechanical features

Design	Round
Width	96mm
Height	50mm
Storage temperature	-20 - 70°C
Length	239mm
Surface	Anodized
Degree of protection (IP)	IP65
Housing material	Aluminum
Ambient temperature	-10 - 60°C

## Optical features

Laser class	Class 2
Light source	Laser diode, red light
Wavelength of the sensor	650nm

## Other features

Reference medium / object	Material with 90% reflectivity
Ambient temperature	-10 - 60°C

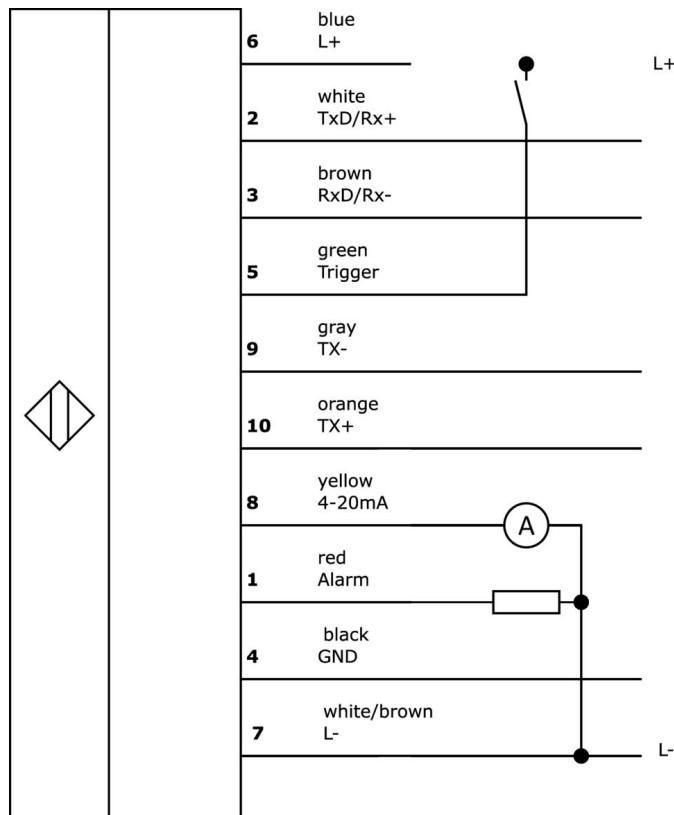
## Classification

ETIM 8 EC001825 Optical distance sensor

More

IPF Product Group	169 laser diffuse reflection sensors (analog)
packaging dimensions	271 x 135 x 127 mm
gross weight	2105 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).

**Dimensional drawing**