PT663020

Laser sensors ● Distance measurement

sensor laser, diffuse-reflection sensor, 65x50x21mm, Sn:30-70mm, Resolution 20µm, Triangulation, 12-28V DC, 0-10V/4-20mA, Connector M12 8pin, IP67, Zinc die-cast+Glass, Laser diode, red light, Line, Teach-In

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	0.9ms
Display	LED display
Resolution	0.02mm
Type of alarm output	PNP
Type of analog output	0 - 10V | 4 - 20mA
Type of electrical connection	Connector M12
Rated switching current	100mA
Setting procedure	Teach-In
Short-circuit protection	Yes
No-load current	100mA
Number of pins	8
Relative linearity deviation	0.06%
Reverse polarity protection	Yes
Decay time	0.9ms
Absolute linearity deviation	0.06mm
Measurement principle	triangulation
Operating voltage (DC)	12 - 28V
Measuring range	30 - 70mm

Mechanical features

Design	Cuboid
Width	20.6mm
Height	65mm
Length	50mm
Degree of protection (IP)	IP67
Volume	Medium
Active area material of sensor	glass
Housing material	Zinc die-cast
Ambient temperature	0 - 50°C

Optical features

Teach-in limits distance	2mm
Laser class	Class 2
Light source	Laser diode, red light
Light beam form	Line
Wavelength of the sensor	650nm
Light spot diameter at focal point	0.35mm

Other features

Reference medium / object	Material with 90% reflectivity
Ambient temperature	0 - 50°C

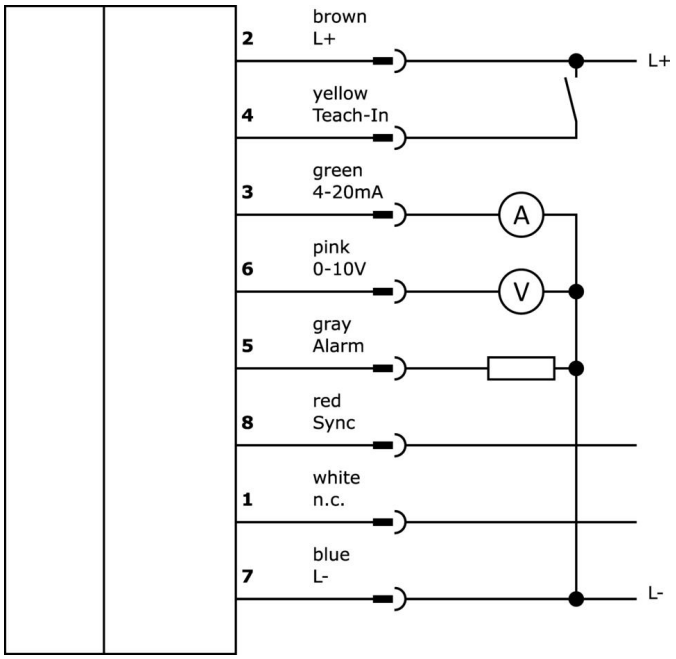
Classification

ETIM 8	EC001825 Optical distance sensor

More

IPF Product Group	169 laser diffuse reflection sensors (analog)
packaging dimensions	160 x 99 x 60 mm
gross weight	210 g
Customs tariff number	85365019
WEEE number	40951076
OzDS-compliant	Yes
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