

PT98A833

Laser sensors • Distance measurement

Sensor laser, diffuse reflection sensor, 50x210x96mm, Sn:100-30000mm, resolution 100µm, phase comparison measurement, 10-30V diagnostic coverage, programmable/configurable, 4-20mA, plug connector M18 12pin, IP66, aluminum painted+glass, SSI, laser diode, red light, dot, parameterization

including 4x Screw



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

Display	LED display
Resolution	0.1mm
Type of switching function	Programmable/configurable
Type of analog output	4 - 20mA
Type of electrical connection	Connector M18
Rated switching current	500mA
Setting procedure	Parameterization
Short-circuit protection	Yes
No-load current	100mA
Number of pins	12
Relative linearity deviation	1%
Relative repeat accuracy	2%
Reverse polarity protection	Yes
Absolute linearity deviation	1mm
Measurement principle	Phase comparison measurement
Supported communication interface	SSI
Operating voltage (DC)	10 - 30V
Measuring range	100 - 30000mm

Mechanical features

Design	Cuboid
Width	96mm
Height	50mm
Storage temperature	-20 - 70°C
Length	210mm
Surface	Varnished
Degree of protection (IP)	IP66
Volume	Large
Active area material of sensor	glass
Housing material	Aluminum
Ambient temperature	-10 - 50°C

Optical features

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

Other features

Reference medium / object	Material with 90% reflectivity
Ambient temperature	-10 - 50°C

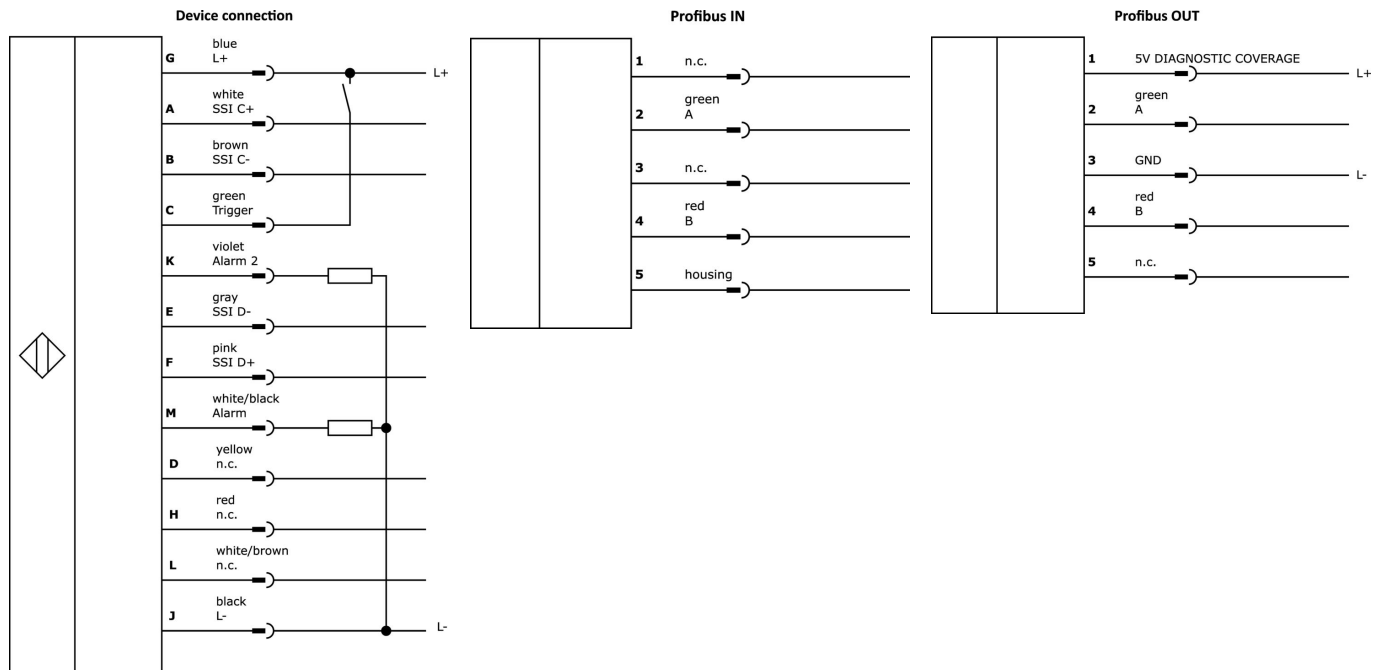
Classification

ETIM 8	EC001825 Optical distance sensor
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More

IPF Product Group	169 laser diffuse reflection sensors (analog)
packaging dimensions	300 x 205 x 110 mm
gross weight	1555 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.

Any software, drivers or IODD files that may be required to operate your device can be downloaded free of charge from our homepage: www.ipf-electronic.com