

PTSI0268

Laser sensors • Distance measurement

sensor laser, diffuse-reflection sensor, 20x76x65mm, Sn:60-180mm, Resolution 60µm, Triangulation, 24V DC, 2x PNP/NPN NC/NO, 0-10V, 8pin, IP64, Aluminum Anodised+Glass, 0.5kHz, RS-232, Laser diode, red light, Line, Parameterization



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

Number of switching outputs	2
Resolution	0.06mm
Type of switching function	Normally closed contact/normally open contact
Type of analog output	0 - 10V
Type of switching output	PNP/NPN
Rated switching current	100mA
Setting procedure	Parameterization
Short-circuit protection	Yes
No-load current	100mA
Number of pins	8
Relative linearity deviation	0.12%
Switching frequency	500Hz
Scanning function	Light-/dark-on mode
Reverse polarity protection	Yes
Absolute linearity deviation	0.12mm
Measurement principle	triangulation
Supported communication interface	RS232
Operating voltage (DC)	24V
Measuring range	60 - 180mm

Mechanical features

Design	Cuboid
Width	65mm
Height	20mm
Storage temperature	-20 - 85°C
Length	75.59mm
Surface	Anodized
Degree of protection (IP)	IP64
Volume	Medium
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	Line
Wavelength of the sensor	670nm
focus	120mm
Light spot length at focal point	3mm
Light spot width at focal point	0.3mm

Other features

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

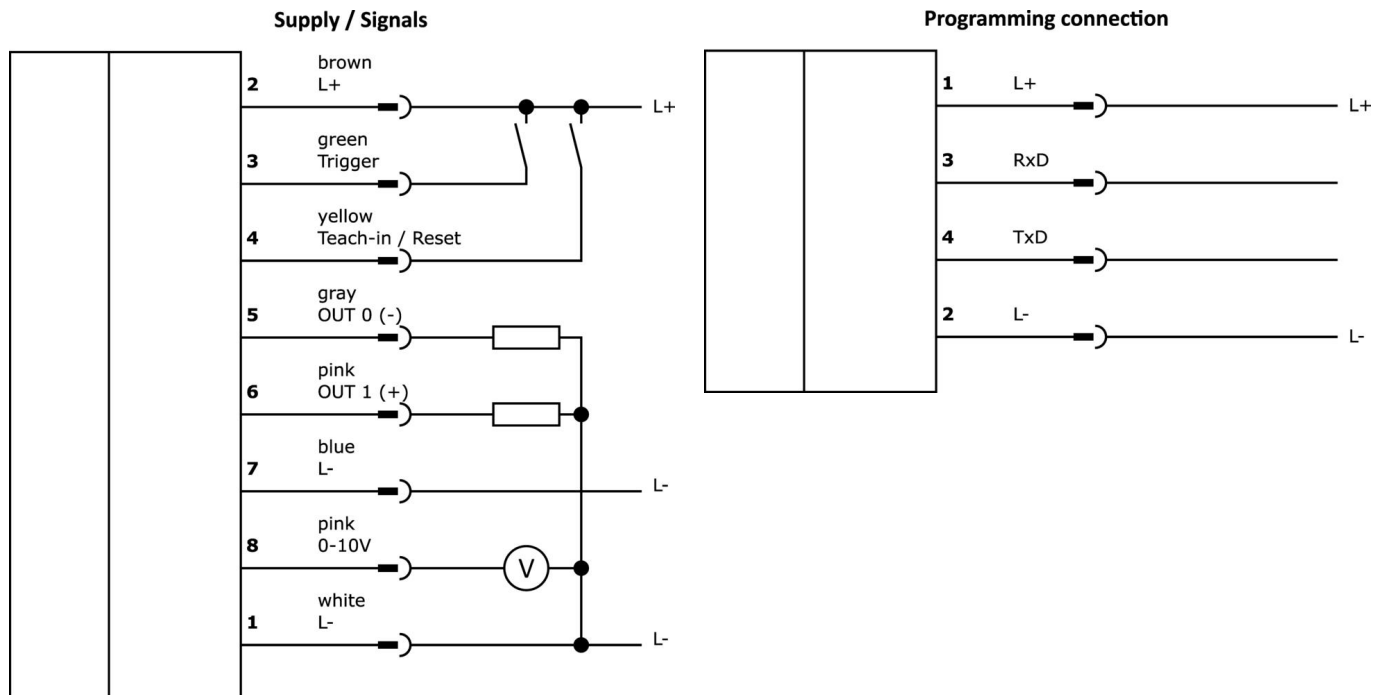
Classification

ETIM 8	EC001825 Optical distance sensor
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More

IPF Product Group	705 special devices (SI)
packaging dimensions	160 x 99 x 60 mm
gross weight	190 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

Dimensional drawing

