

PT730520

Laser sensors • Distance measurement

sensor laser, diffuse-reflection sensor, 73x60x37mm, Sn:200-20000mm, Light delay time, 24V DC, 2x PNP/NPN Push-pull, 0-10V/4-20mA, Connector M12 8pin, IP67, Zinc die-cast+Plastic, RS-485, Laser diode, red light, Point, 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

Response/decay time	90ms
Number of switching outputs	2
Display	LED display
Resolution	1mm
Type of switching function	Schließer (NO bei PNP) Öffner (NC bei NPN)
Type of alarm output	PNP/NPN
Type of analog output	0 - 10V 4 - 20mA
Type of electrical connection	Connector M12
Type of switching output	Push-pull
Setting procedure	Parameterization
Short-circuit protection	Yes
Laser power	1mW
No-load current	100mA
Number of pins	8
Relative linearity deviation	2%
Relative repeat accuracy	1%
Reverse polarity protection	Yes
Decay time	45ms
Absolute linearity deviation	2mm
Measurement principle	time-of-flight
Supported communication interface	RS485
Operating voltage (DC)	24V
Measuring range	200 - 20000mm

Mechanical features

Design	Cuboid
Width	37mm
Height	73mm
Storage temperature	-20 - 70°C
Length	60mm
Degree of protection (IP)	IP67
Vibration resistance	55Hz
Volume	Large
Active area material of sensor	Plastic
Housing material	Zinc die-cast
Ambient temperature	-15 - 50°C

Optical features

Laser class	Class 2
Light source	Laser diode, red light
Light beam form	Point
Wavelength of the sensor	658nm

Other features

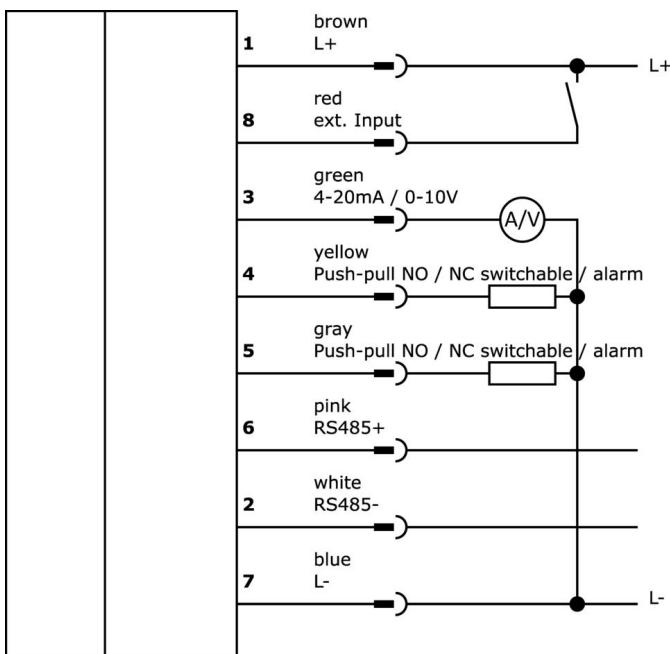
Relative measurement accuracy	7%
Reference medium / object	Material with 90% reflectivity
Ambient temperature	-15 - 50°C

Classification

ETIM 8	EC001825 Optical distance sensor
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More

IPF Product Group	169 laser diffuse reflection sensors (analog)
packaging dimensions	120 x 90 x 55 mm
gross weight	280 g
Customs tariff number	85365019
WEEE number	40951076
POP-compliant	Yes
Reach-compliant	Yes
RoHS-compliant	Yes
MTBF (40°C)	68 year(s)

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

