

PT440306

Laser sensors • Diffuse reflection sensors with background suppression

Sensor laser, probe, 44x25x20mm, Sn:250-3000mm, light runtime, 12-24V DC, 1x PNP NC/NO, 0-5V/4-20mA, cable 2m, IP67, aluminum+acrylic glass, laser diode, red light, dot, parameterization

- / Robust aluminum housing**
- / Switching and analog output**
- / 4-digit LC display**



Laser class 1

Large scanning range due to time of flight measurement

Optical sensors operate without contact. They detect objects, regardless of their nature (e.g. shape, color, surface structure, material). The basic mode of operation is based on the transmission and reception of light. Three variants are distinguished:

1. The through-beam sensor consists of two separate devices, a transmitter and a receiver, which are aligned with each other. When the light beam between the two devices is interrupted, the switching output integrated in the receiver changes its status.
2. In the case of the reflex light barrier, the transmitter and receiver are located in one device. The transmitted light beam is reflected onto the receiver by a reflector to be mounted opposite. 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 located in one device. The transmitted light beam is reflected by the object 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	35 ms
Number of switching outputs	1
Display	LCD display
Type of switching function	Normally closed contact/normally open contact
Type of analog output	0 - 5V 4 - 20mA
Type of electrical connection	Cable
Type of switching output	PNP
Rated switching current	50 mA
Setting procedure	Parameterization
Short-circuit protection	Yes
Laser power	0.39 mW
No-load current	40 mA
Linearity deviation	60 mm
Relative linearity deviation	2 %
Relative repeat accuracy	0.33 %
Residual ripple	10 %
Voltage drop	1.5 V
Scanning function	Light-/dark-on mode
Reverse polarity protection	Yes
Decay time	2 ms
Measurement principle	time-of-flight
Operating voltage (DC)	21,6 - 26,4 V
Measuring range	250 - 3000 mm
Time function	Yes

Mechanical features

Number of cores	5
Conductor cross-section	0.2 mm ²
Tightening torque	0.5 Nm
Design	Cuboid
Width	20 mm
Height	44 mm
Cable length	2 m
Storage temperature	-20 - 60 °C
Length	25 mm
Degree of protection (IP)	IP67
Active area material of sensor	acrylic glass
Housing material	Aluminum
Material of cable sheath	Plastic (PVC)
Ambient temperature	-10 - 45 °C

Optical features

Laser class	Class 1
Light source	Laser diode, red light
Light beam form	Point
Wavelength of the sensor	680 nm

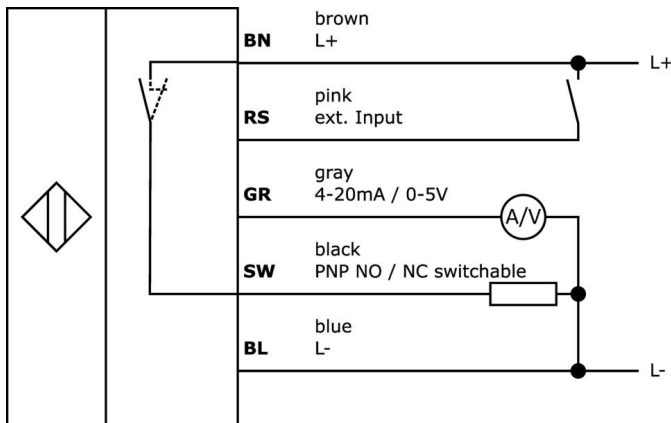
Classification

ETIM 8	EC001825 Optical distance sensor
--------	----------------------------------

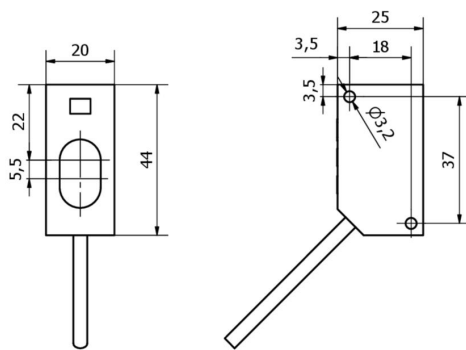
More

IPF Product Group	160 laser sensor
packaging dimensions	125 x 70 x 40 mm
gross weight	120 g
Customs tariff number	85365019
WEEE number	40951076
OzDS-compliant	Yes
POP-compliant	Yes
Reach-compliant	Yes
RoHS-compliant	Yes

Connection



Dimensional drawing



Extract accessories program

AP000042



accessories laser, Mounting angle bracket, M3x0.5 23long, Angle, V2A, 90°

AY000129



Accessories, magnetic, Ø66mm, neodymium-iron-boron, inside thread M6, rubber

AY000144



accessories sensor, Adapter plate, 3x30x85mm, Stainless steel 1.4305

AY000141



Plastic sheath, Ø17mm, Inner diameter 10mm, -40-250°C, Glass fiber with silicone rubber, Short-term resistance to weld spatter 1200°C, Tensile strength 400N, Flexible, Flame retardant, yard good

VL250100



Logic module, 49x80x26mm, AND, 4fold, 10-35V DC, sensor side Clamp, control side Clamp, IP40, Plastic

VL250120



Logic module, 49x80x26mm, OR, 4fold, 10-35V DC, sensor side Clamp, control side Clamp, IP40, Plastic

VY000004



DC power supply, sensor tester, 120x26x72mm, 18V, 0.04A, Spring clamp connection 4pin, IP20, Plastic

NG400501



DC power supply, 1-phase, 125x114x40mm, 24-28V, 5A, 90-264V AC 50Hz, 90-264V AC 60Hz, 127-370V DC, screw connection, IP20, aluminum, stabilized, pulsed output voltage

VY850001



Inverter/signal-inversion/turn-off delay, 85x65x18mm, 0.01-10s, 12-30V DC, 1x NC/NO, Clamp 8pin, IP40, Plastic, Plug-in jumpers

You can find further accessories on our homepage



Installation

Mounting / installation may only be carried out by a qualified electrician!



Disposal

WEEE number according to § 6 para. 3 ElektroG: 40951076

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.