

PT170400

Laser sensors • Diffuse reflection sensors with background suppression

Sensor laser, diffuse reflection sensor, 50x50x15mm, Sn: 25-300, 10-30V DC, 2x PNP NC/NO, cable tail 2m PVC, IP67, zinc diecast+glass, 0.8kHz, laser diode, red light, dot, manual setting



Optical sensors work contactless. They detect objects, regardless of their properties (e.g. shape, color, surface structure, material). The basic mode of operation is based on the transmitter and receiver of light. There are three different versions: 1. the through-beam sensor consists of two separate devices, a transmitter and a receiver, which are aligned with each other. If the light beam between the two devices is interrupted, the switching output integrated in the receiver changes its status. 2. in 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. the diffuse reflection sensor has a transmitter and receiver 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	0.6 ms
Number of switching outputs	2
Display	LED display
Resolution	0.1 mm
Type of switching function	Normally closed contact/normally open contact
Type of electrical connection	Cable
Type of switching output	PNP
Rated switching current	200 mA
Setting procedure	Manual adjustment
Laser power	1 mW
No-load current	35 mA
Switching distance	25 - 300 mm
Switching frequency	800 Hz
Voltage drop	2 V
Scanning function	Light-/dark-on mode
Decay time	0.6 ms
Absolute repeat accuracy	0.1 mm
Operating voltage (DC)	10 - 30 V
ardTEEL_Schutzfunktionen	Short circuit protection Reverse polarity protection

Mechanical features

Number of cores	4
Conductor cross-section	0.25 mm ²
Design	Cuboid
Width	15.4 mm
Height	50 mm
Cable length	2 m
Length	50 mm
Degree of protection (IP)	IP67
Active area material of sensor	glass
Housing material	Zinc die-cast
Material of cable sheath	Plastic (PVC)
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	650 nm
focus	80 mm
Light spot diameter at focal point	0.05 mm

Other features

Range of functions	Störunterdrückung
Reference medium / object	Material with 90% reflectivity

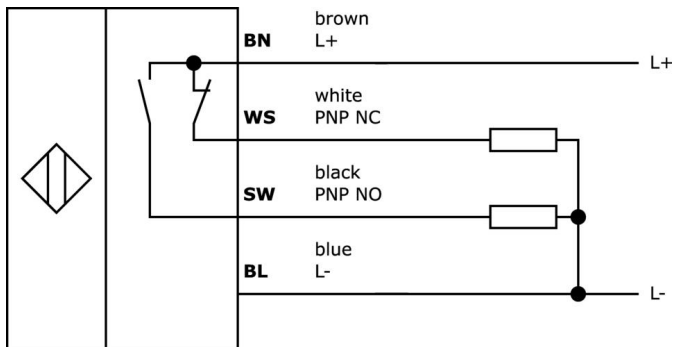
Classification

ETIM 8	EC002719 Photoelectric proximity switch with background suppression
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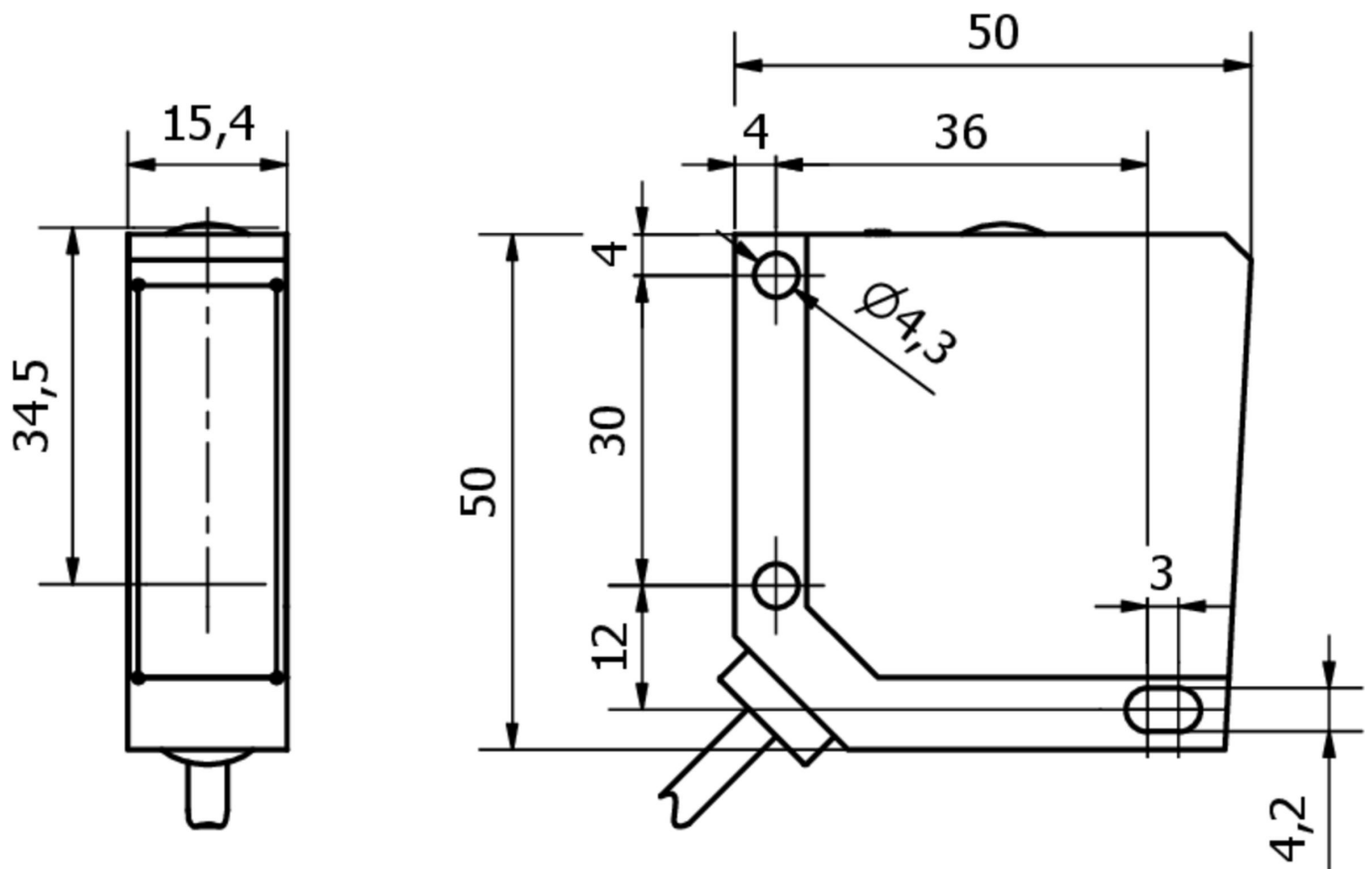
More

IPF Product Group	160 laser sensor
packaging dimensions	123 x 77 x 25 mm
gross weight	170 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

VK003026



Cable connector, Angular, Suitable for self-assembly, Screw connection, Ø3-6.5mm, 4A, 240V, -25-90°C, M12 Male (connector) 4pin, IP67, PBT

VK003028



Cable connector, Straight, Suitable for self-assembly, Screw connection, Ø3-6.5mm, 4A, 240V, -25-90°C, M12 Male (connector) 4pin, IP67, PBT

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

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

VY850001



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

VY850002



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

AY000119



accessories sensor, Fixture kit, Metal, ball joint

AY000162



Accessories, magnetic, Ø43mm, neodymium-iron-boron, inside thread M5, rubber

VY000004



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

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.