

PR170420

Laser sensors • Retro-reflective sensors

sensor laser, reflective, 50x50x15mm, Laser diode, red light, Point, Sn: 11000, 10-30V DC, PNP Anticoincidence, Connector M12 4pin 2m, IP67, Zinc die-cast+Glass, With polarizing filter



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	0.1 ms
Display	LED display
Resolution	5 mm
Type of switching function	Exclusive-OR
Type of electrical connection	Connector M12
Type of switching output	PNP
Rated switching current	200 mA
Short-circuit protection	Yes
Laser power	0.4 mW
No-load current	70 mA
Number of pins	4
Switching distance	0 - 11000 mm
Voltage drop	2 V
Scanning function	Light-/dark-on mode
Reverse polarity protection	Yes
Decay time	0.1 ms
Absolute repeat accuracy	1.5 mm
Operating voltage (DC)	10 - 30 V
With polarizing filter	Yes

Mechanical features

Number of cores	4
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
Ambient temperature	-10 - 50 °C

Optical features

Laser class	Class 1
Light source	Laser diode, red light
Light beam form	Point
Wavelength of the sensor	650 nm
focus	400 mm

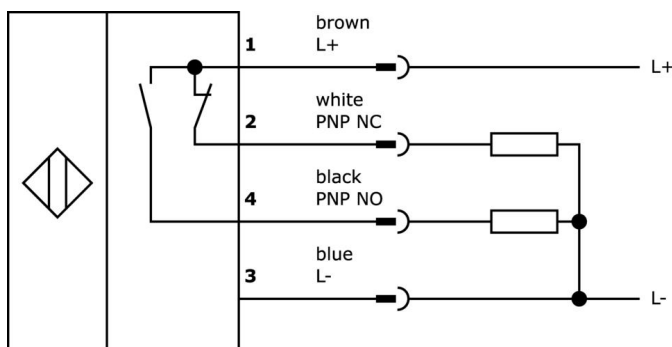
Classification

ETIM 8	EC002717 Retro-reflective sensor
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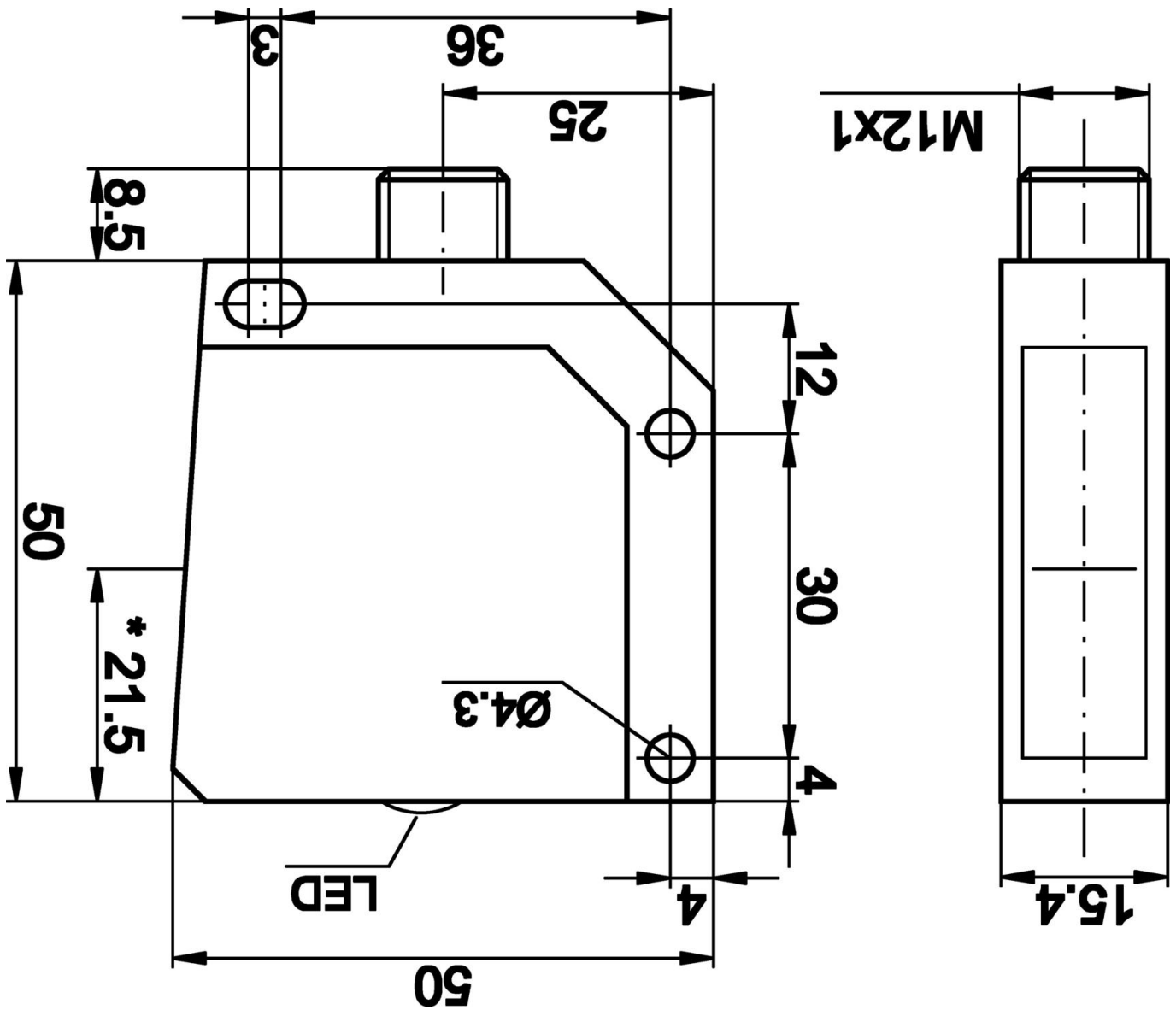
More

IPF Product Group	160 laser sensor
packaging dimensions	123 x 77 x 25 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

VK200321



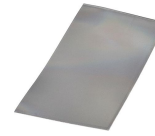
Connection cable, 2m, M12
Female (socket) 4pin Angular, Free conductor end, 4x0.34mm², PUR (Polyurethane), Ø4.7mm, 250V, -40-90°C, IP67, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-free

VK200325



Connection cable, 2m, M12
Female (socket) 4pin Straight, Free conductor end, 4x0.34mm², PUR (Polyurethane), Ø4.7mm, 250V, -40-90°C, IP67, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-free

AP000027



accessories laser, reflector, 100x50mm, Self-adhesive, -40-70°C, Plastic+Plastic, Polarized, Punchable and cuttable

AP000035



accessories laser, reflector, 6x59x20mm, Screw hole, 2xØ4.5mm, -40-70°C, IP67, PMMA+PMMA, Polarized, Microprisms

VK030F23



Connection cable, 0.3m, M12 socket 4-pin angular, M12 connector 4-pin straight, 4x0.34mm², PUR (polyurethane), IP67, LED, suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

VK030F26



Connection cable, 0.3m, M12 socket 4-pin straight, M12 connector 4-pin straight, 4x0.34mm², PUR (polyurethane), IP67, LED, suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

VK003020



Cable socket, angular, self-assembly, screw connection, Ø3-6.5mm, 4A, 240V, -25-90°C, M12 socket 4-pin, IP67, PBT

VK003024



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

AY000119



accessories sensor, Fixture kit, Metal, ball joint

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.