

## PRQ80376

### Laser sensors • Retro-reflective sensors

sensor laser, reflective, 26x15x8mm, Laser diode, red light, Line, Sn: 100-3000, 10-30V DC, 1x PNP NC/NO, Connector M8 4pin 0.2m PUR (Polyurethane), IP67, PUR (Polyurethane)+PMMA, 1kHz, Teach-In



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	0.5 ms
Display	LED display
Type of switching function	Normally closed contact/normally open contact
Type of electrical connection	Connector M8
Type of switching output	PNP
Rated switching current	50 mA
Short-circuit protection	Yes
Laser power	1 mW
No-load current	12 mA
Number of pins	4
Switching distance	100 - 3000 mm
Switching frequency	1000 Hz
Scanning function	Light-/dark-on mode
Reverse polarity protection	Yes
Decay time	0.5 ms
Operating voltage (DC)	10 - 30 V

**Mechanical features**

Number of cores	4
Design	Cuboid
Width	8 mm
Height	25.7 mm
Storage temperature	-20 - 80 °C
Length	14.6 mm
Degree of protection (IP)	IP67
Active area material of sensor	Plastic (PMMA)
Housing material	PUR (Polyurethane)
Material of cable sheath	Plastic (PUR)
Ambient temperature	-20 - 50 °C

**Optical features**

Laser class	Class 1
Light source	Laser diode, red light
Light beam form	Line
Min. object size	3 mm
Wavelength of the sensor	655 nm

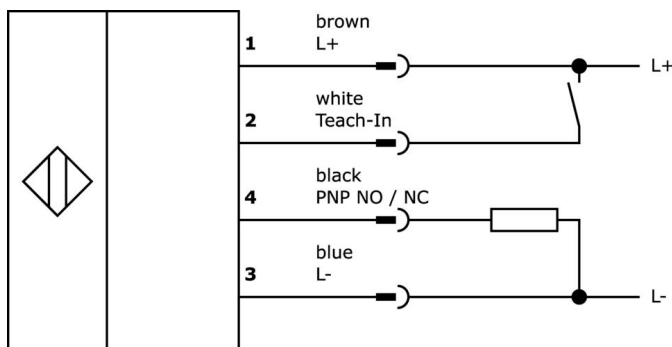
**Classification**

ETIM 8	EC002717 Retro-reflective sensor
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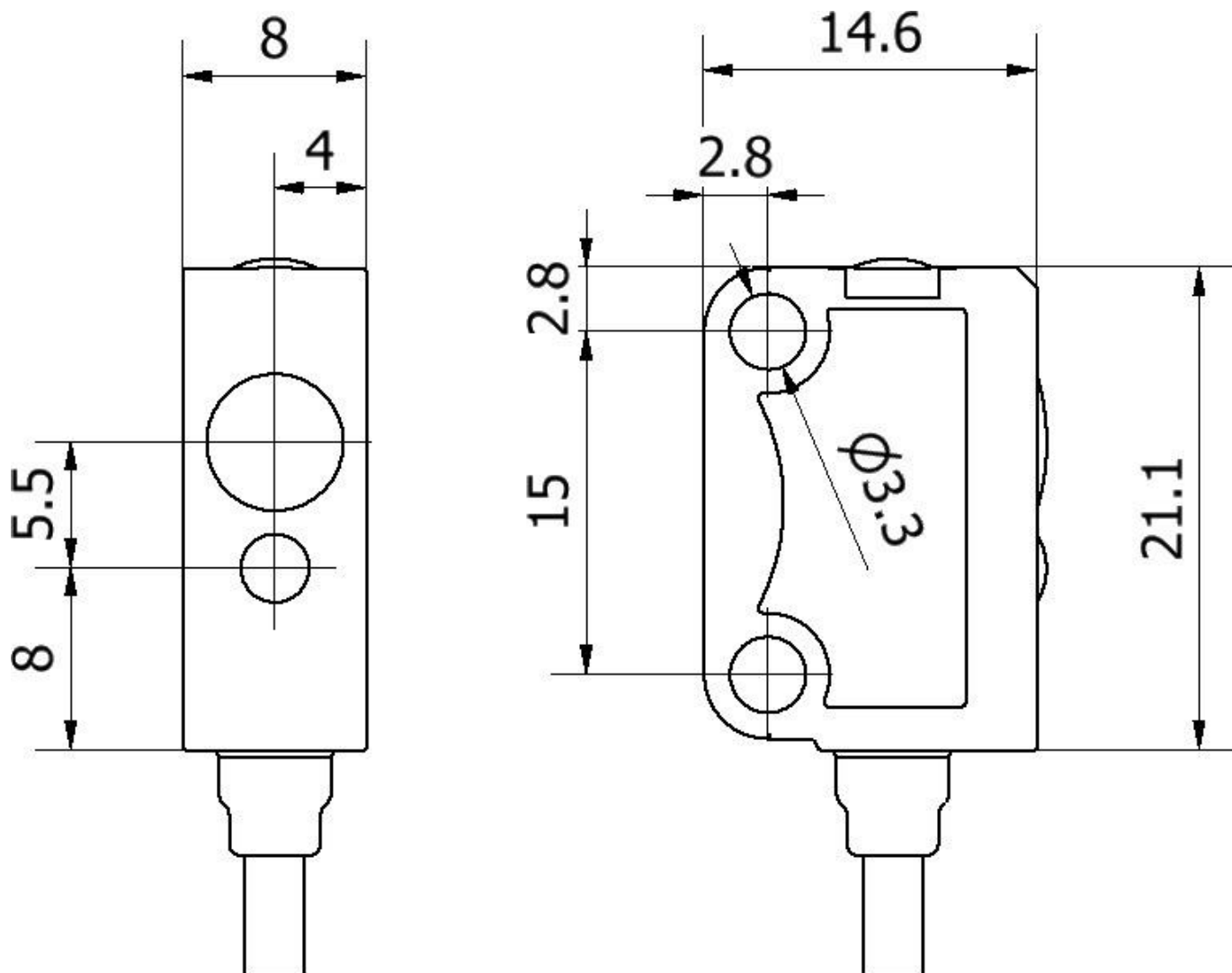
**More**

IPF Product Group	160 laser sensor
packaging dimensions	91 x 60 x 30 mm
gross weight	22 g
Customs tariff number	85365019
WEEE number	40951076
OzDS-compliant	Yes
POP-compliant	Yes
Reach-compliant	Yes
RoHS-compliant	Yes

**Connection**

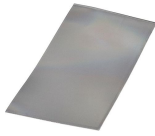


Dimensional drawing



**Extract accessories program**

**AP000027**



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

**AP000035**



accessories laser, reflector, 6x59x20mm, Screw hole, 2x $\varnothing$ 4.5mm, -40-70°C, IP67, PMMA+PMMA, Polarized, Microprisms

**VK200471**



Connection cable, 2m, M8 socket 4-pin angular, free cable end, 4x0.34mm<sup>2</sup>, PUR (polyurethane),  $\varnothing$ 4.7mm, -30-90°C, IP67, LED, suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

**VK500471**



Connection cable, 5m, M8 socket 4-pin angular, free cable end 4-pin, 4x0.34mm<sup>2</sup>, PUR (polyurethane),  $\varnothing$ 4.7mm, -30-90°C, IP67, LED, suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

**VK003071**



Cable socket, Angular, Suitable for self-assembly, Soldering connection,  $\varnothing$ 3.5-5mm, 4A, 30V, -40-85°C, M8 Female (socket) 4pin, IP67, Brass

**VK003075**



Cable socket, Straight, Suitable for self-assembly, Soldering connection,  $\varnothing$ 3.5-5mm, 4A, 30V, -40-85°C, M8 Female (socket) 4pin, IP67, Brass

**VK03A247**



Connection cable, 0.3m, M8 socket 4-pin straight, M8 connector 3-pin straight, 3-core, PUR (polyurethane), suitable for trailing chain and torsion-resistant, oils and cooling lubricants, welding area, silicone-free

**VK03C825**



Connection cable, 0.3m, M8 socket 4-pin angular, M8 connector 3-pin straight, 3-core, PUR (polyurethane), suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

**VK200371**



Connection cable, 2m, M8 Female (socket) 4pin Angular, Free conductor end, 4x0.34mm<sup>2</sup>, PUR (Polyurethane),  $\varnothing$ 4.7mm, 30V, -30-90°C, IP67, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-free

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.