

OR330571

Optical sensors • Retro-reflective sensors

sensor optical, reflective, 32x23x13mm, Polarized red light, Point, Teach-In, Sn: 5000, 10-30V DC, PNP/NPN NC/NO, Connector M8 4pin, IP67, Plastic ASA+PMMA, 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	0.5 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/NPN
Rated switching current	100 mA
Setting procedure	Teach-In
Short-circuit protection	Yes
No-load current	25 mA
Number of pins	4
Switching distance	0 - 5000 mm
Switching frequency	1000 Hz
Voltage drop	3 V
Scanning function	Light-/dark-on mode
Reverse polarity protection	Yes
Decay time	0.5 ms
Operating voltage (DC)	10 - 30 V
With polarizing filter	Yes
Interference suppression	Yes
Output functions	Switching point

Mechanical features

Design	Cuboid
Width	12.9 mm
Height	32.3 mm
Storage temperature	-25 - 60 °C
Length	23 mm
Degree of protection (IP)	IP67
Active area material of sensor	Plastic (PMMA)
Housing material	Plastic ASA
Ambient temperature	-25 - 60 °C

Optical features

Light source	Polarized red light
Light beam form	Point
Wavelength of the sensor	630 nm

Other features

Reference medium / object	AO000007
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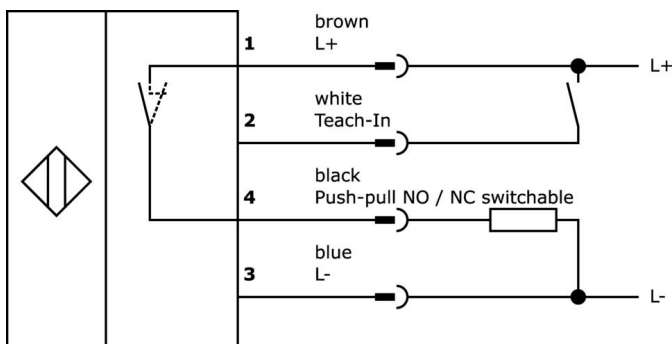
Classification

ETIM 8	EC002717 Retro-reflective sensor
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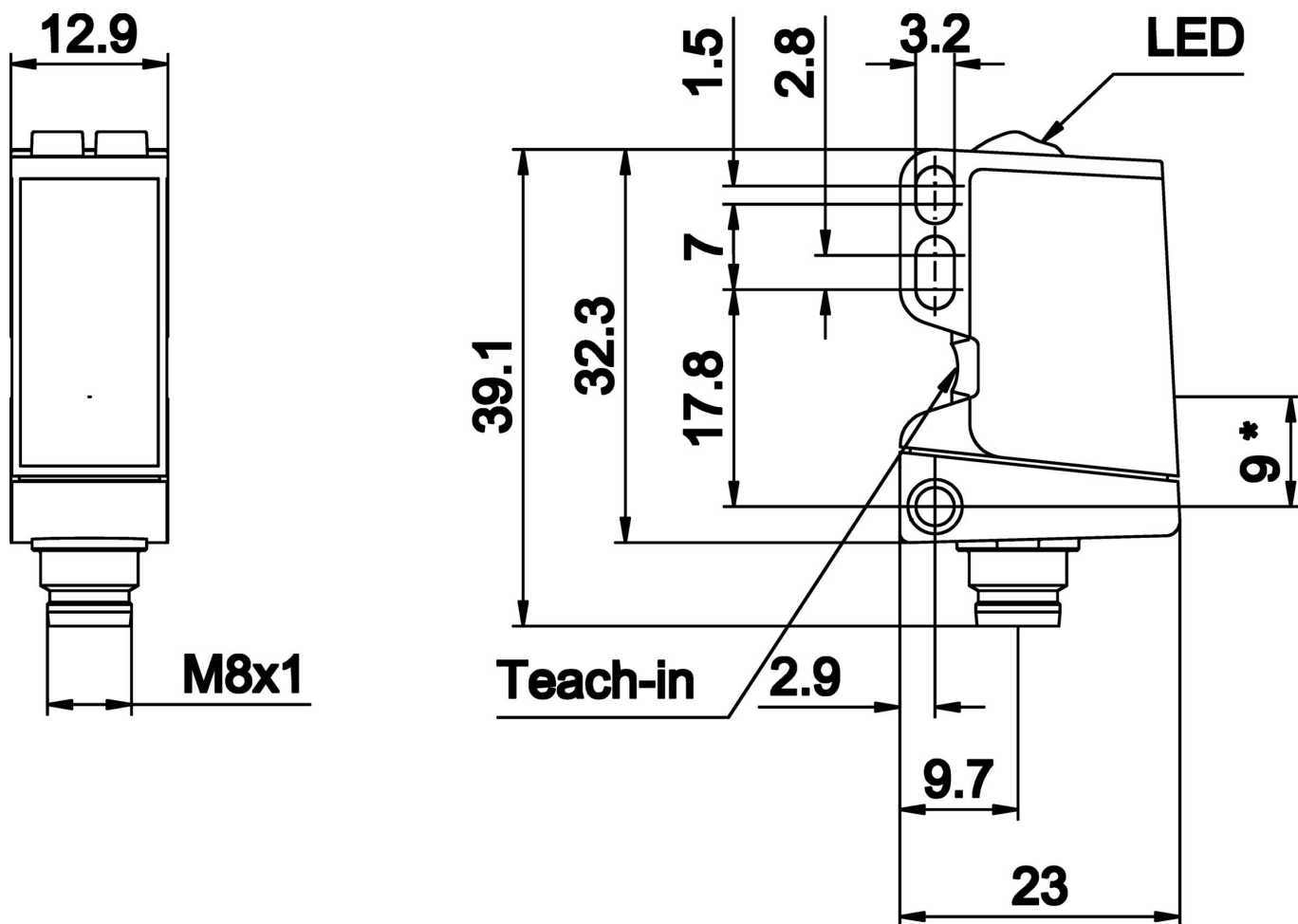
More

IPF Product Group	100 optical sensors
packaging dimensions	123 x 77 x 25 mm
gross weight	27 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

VK030F81



Connection cable, 0.3m, M8 socket 4-pin angular, M12 connector 4-pin straight, 4x0.34mm², PUR (polyurethane), 60V, IP67, suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

VK030F85



Connection cable, 0.3m, M8 socket 4-pin straight, M12 connector 4-pin straight, 4x0.34mm², PUR (polyurethane), 60V, IP67, suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

AY98C293



accessories sensor, Teflon cap, M8x1 5long, Polytetrafluorethylene (PTFE)

VK200371



Connection cable, 2m, M8 Female (socket) 4pin Angular, Free conductor end, 4x0.34mm², PUR (Polyurethane), Ø4.7mm, 30V, -30-90°C, IP67, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-free

VK200375



Connection cable, 2m, M8 Female (socket) 4pin Straight, Free conductor end, 4x0.34mm², PUR (Polyurethane), Ø4.7mm, 30V, -30-90°C, IP67, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-free

AO000004



accessories optical, reflector, Ø20mm 6high, Self-adhesive, PMMA+PMMA, Polarized

AO000005



accessories optical, reflector, Ø40mm 7high, Self-adhesive, PMMA+PMMA, Polarized

VK003071



Cable socket, Angular, Suitable for self-assembly, Soldering connection, Ø3.5-5mm, 4A, 30V, -40-85°C, M8 Female (socket) 4pin, IP67, Brass

VK003075



Cable socket, Straight, Suitable for self-assembly, Soldering connection, Ø3.5-5mm, 4A, 30V, -40-85°C, M8 Female (socket) 4pin, IP67, Brass

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.