

OE140170

Optical sensors • Through-beam sensors receivers

sensor optical, Through-beam sensor receiver, 27x14x12mm, Sn: 5m, 10-30V DC, PNP NO (NO), Cable connector M8 3pin 0.2m PVC, IP65, Plastic ASA+PMMA, Polarity free red light



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	1.4 ms
Display	LED display
Type of switching function	Normally open contact (NO)
Type of electrical connection	Cable connector M8
Type of switching output	PNP
Rated switching current	100 mA
Setting procedure	Potentiometer
Short-circuit protection	Yes
No-load current	16 mA
No-load current, receiver	16 mA
Number of pins	3
Switching distance	0 - 5000 mm
Switching frequency	350 Hz
Voltage drop	1.8 V
Scanning function	Dark switching
Reverse polarity protection	Yes
Decay time	1.4 ms
Operating voltage (DC)	10 - 30 V
Output functions	Switching point

Mechanical features

Conductor cross-section	0.25 mm ²
Design	Cuboid
Width	12 mm
Height	27 mm
Cable length	0.2 m
Length	14 mm
Maximum tightening torque	0.5 Nm
Degree of protection (IP)	IP65
Active area material of sensor	Plastic (PMMA)
Housing material	Plastic ASA
Material of cable sheath	Plastic (PVC)
Ambient temperature	-25 - 65 °C

Optical features

Light source	Polarity free red light
Light beam form	Point
Wavelength of the sensor	660 nm

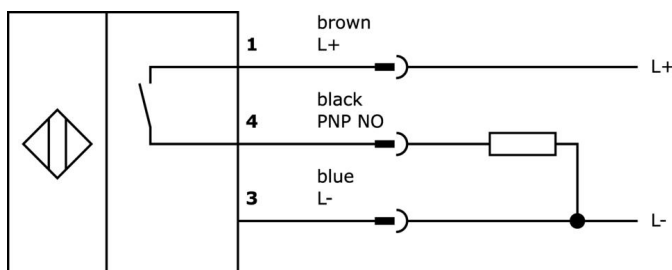
Classification

ETIM 8	EC002716 Through-beam photoelectric sensor
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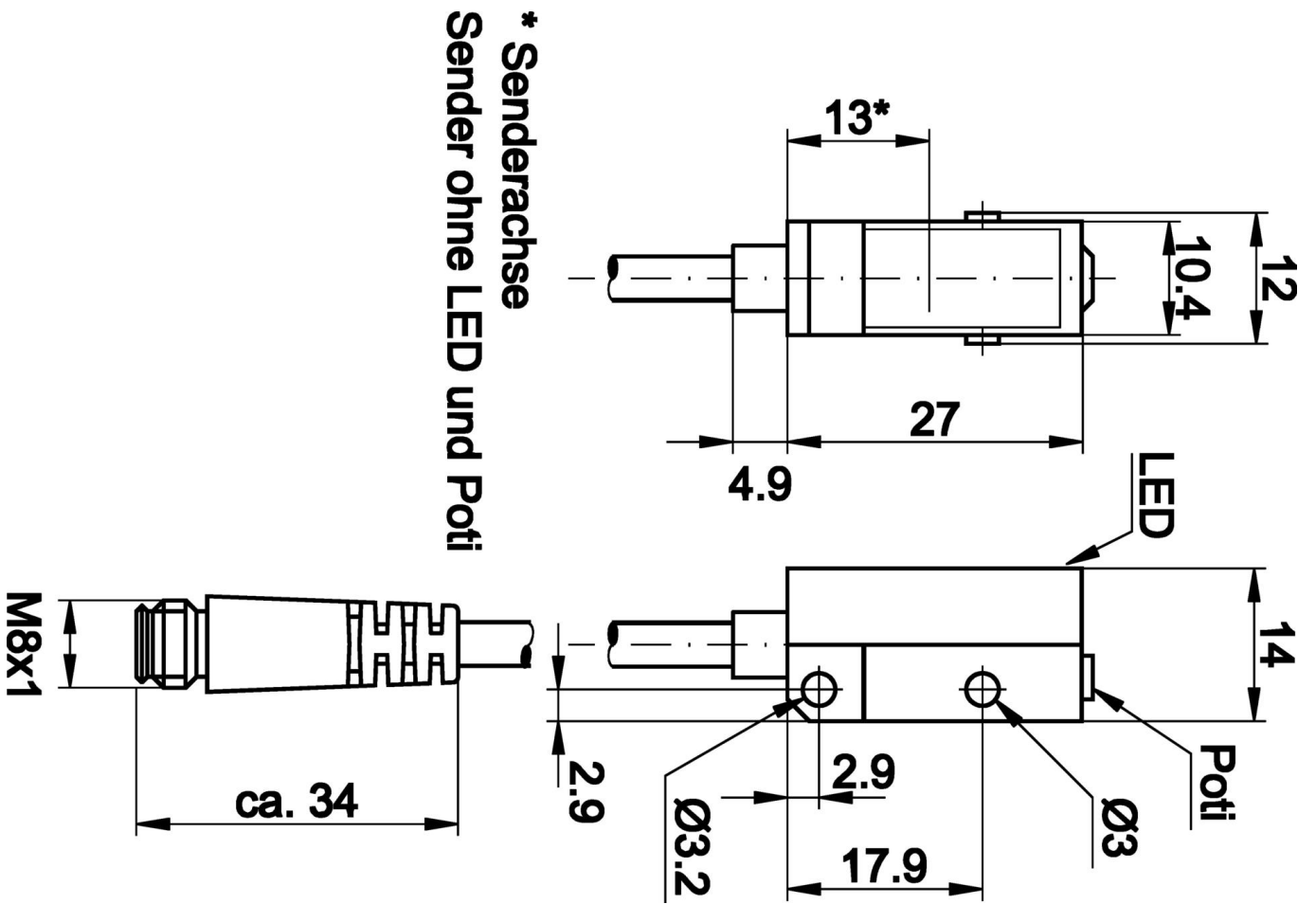
More

IPF Product Group	100 optical sensors
packaging dimensions	95 x 75 x 17 mm
gross weight	24 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

AV000142



accessories cable socket,
Mounting clip, 8.5mm, PPO,
Packaging unit 5, Accessories for
Cable socket/connector M8

VK030F72



Connection cable, 0.3m, M8
socket 3-pin angular, M8
connector 3-pin straight, 3x0.
34mm², PUR (polyurethane), IP67,
LED, suitable for trailing chain and
torsion resistant, oils and cooling
lubricants, welding area, silicone-
free

VK060F72



Connection cable, 0.6m, M8
socket 3-pin angular, M8
connector 3-pin straight, 3x0.
34mm², PUR (polyurethane), IP67,
LED, suitable for trailing chain and
torsion resistant, oils and cooling
lubricants, welding area, silicone-
free

VK003070



Cable socket, Angular, Suitable for
self-assembly, Soldering
connection, Ø3.5-5mm, 4A, 60V, -
40-85°C, M8 Female (socket) 3pin,
IP67, Brass

VK003074



Cable socket, Straight, Suitable for
self-assembly, Soldering
connection, Ø3.5-5mm, 4A, 60V, -
40-85°C, M8 Female (socket) 3pin,
IP67, Brass

VK030F82



Connection cable, 0.3m, M8
socket 3-pin angular, M12
connector 3-pin straight, 3x0.
34mm², PUR (polyurethane), IP67,
LED, suitable for trailing chain and
torsion resistant, oils and cooling
lubricants, welding area, silicone-
free

VK060F82



Connection cable, 0.6m, M8
socket 3-pin angular, M12
connector 3-pin straight, 3x0.
34mm², PUR (polyurethane), IP67,
LED, suitable for trailing chain and
torsion resistant, oils and cooling
lubricants, welding area, silicone-
free

VK200071



Connection cable, 2m, M8 Female
(socket) 3pin Angular, Free
conductor end, 3x0.34mm², PUR
(Polyurethane), Ø4.3mm, 60V, -
40-90°C, IP67, TPU, Suitable for
trailing chain and torsion resistant,
Oil and cooling lubricants, Welding
area, Silicone-free

VK200075



Connection cable, 2m, M8 female
(socket) 3pin Straight, free
conductor end, 3x0.34mm², PUR
(Polyurethane), Ø4.3mm, 60V, -
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.