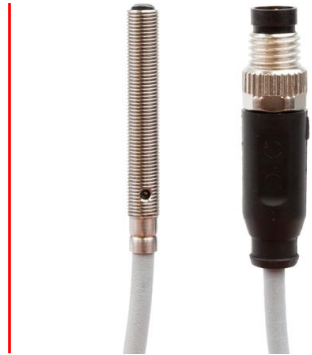


OT05E287

Optical sensors • Diffuse reflection sensors with intensity differentiation

sensor optical, diffuse-reflection sensor, M5x0.5 36long, Sn: 20, 10-30V DC, 1x PNP NO (NO), Cable connector M8 3pin 0.3m PUR (Polyurethane), IP67, V2A+PMMA, 1kHz, Infrared light, Point

including Nut, Toothed washer



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
Number of switching outputs	1
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
Short-circuit protection	Yes
No-load current	12 mA
Number of pins	3
Residual ripple	10 %
Switching distance	20 mm
Switching frequency	1000 Hz
Protection class	III
Voltage drop	2 V
Scanning function	Light switching
Reverse polarity protection	Yes
Decay time	0.5 ms
Operating voltage (DC)	10 - 30 V

Mechanical features

Number of cores	3
Conductor cross-section	0.14 mm ²
Design	Cylinder, screw-thread
Thread length	30 mm
Thread pitch	0.5 mm
Cable length	0.3 m
Length	36 mm
Maximum tightening torque	1 Nm
Degree of protection (IP)	IP67
Active area material of sensor	Plastic (PMMA)
Housing material	Stainless steel (V2A)
Material of cable sheath	Plastic (PUR)
Thread dimension	M5
Ambient temperature	-25 - 65 °C

Optical features

Light source	Infrared light
Light exit	axial
Light beam form	Point
Wavelength of the sensor	880 nm

Other features

Feeding technology	Yes
Reference medium / object	Material with 90% reflectivity

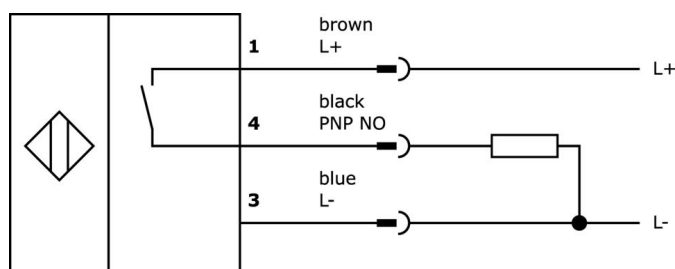
Classification

ETIM 8	EC001821 Light sensor energetic
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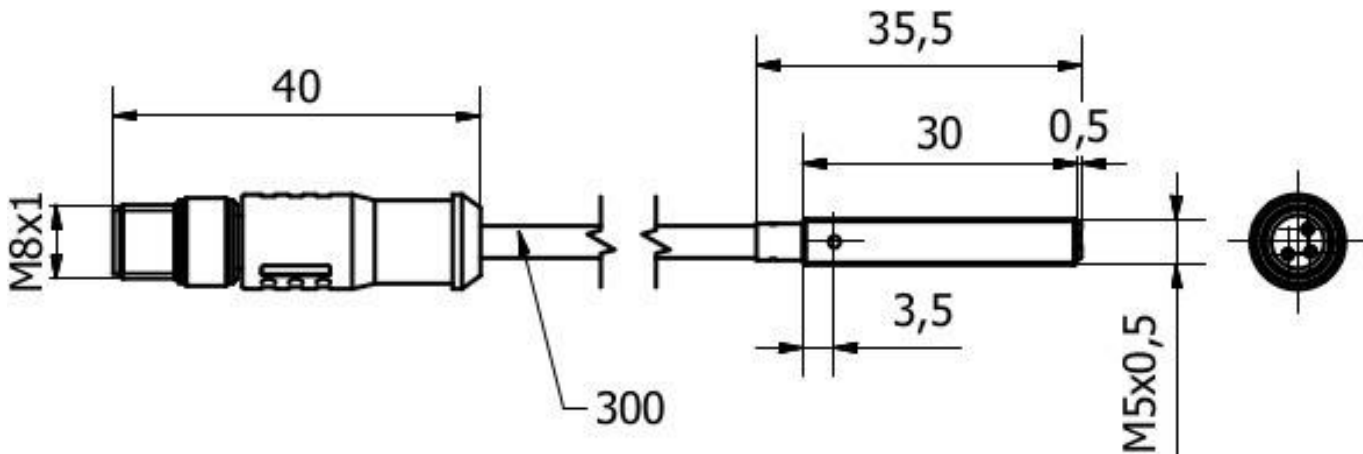
More

IPF Product Group	100 optical sensors
packaging dimensions	123 x 77 x 25 mm
gross weight	29 g
Customs tariff number	85365019
WEEE number	40951076
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

VK030F80



Connection cable, 0.3m, M8
socket 3-pin angular, M12
connector 3-pin straight, 3x0.
34mm², PUR (polyurethane), 60V,
IP67, suitable for trailing chain and
torsion resistant, oils and cooling
lubricants, welding area, silicone-
free

VK030F84



Connection cable, 0.3m, M8
socket 3-pin straight, M12
connector 3-pin straight, 3x0.
34mm², PUR (polyurethane), 60V,
IP67, suitable for trailing chain and
torsion resistant, oils and cooling
lubricants, welding area, silicone-
free

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

VK030F70



Connection cable, 0.3m, M8
socket 3-pin angular, M8
connector 3-pin straight, 3x0.
34mm², PUR (polyurethane), 60V,
IP67, suitable for trailing chain and
torsion resistant, oils and cooling
lubricants, welding area, silicone-
free

VK030F74



Connection cable, 0.3m, M8
socket 3-pin straight, M8
connector 3-pin straight, 3x0.
34mm², PUR (polyurethane), 60V,
IP67, suitable for trailing chain and
torsion resistant, oils and cooling
lubricants, welding area, silicone-
free

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

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.