

OR180126

Optical sensors • Retro-reflective sensors

sensor optical, reflective, M18x1 64long, Polarized red light, Point, Sn: 2000, 10-30V DC, PNP NO (NO), Connector M12 3pin, IP67, Brass Chrome-plated+Glass, With polarizing filter

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
Display	LED display
Type of switching function	Normally open contact (NO)
Type of electrical connection	Connector M12
Type of switching output	PNP
Rated switching current	200 mA
Readiness delay	20 ms
Short-circuit protection	Yes
No-load current	15 mA
Number of pins	3
Switching distance	0 - 2000 mm
Switching frequency	1000 Hz
Voltage drop	2 V
Clock frequency of the transmitter	15 kHz
Scanning function	Dark switching
Reverse polarity protection	Yes
Decay time	0.5 ms
Operating voltage (DC)	10 - 30 V
With polarizing filter	Yes

Mechanical features

Design	Cylinder, screw-thread
Diameter	18 mm
Thread length	42 mm
Thread pitch	1 mm
Length	63.5 mm
Maximum tightening torque	20 Nm
Surface	Chrome-plated
Degree of protection (IP)	IP67
Active area material of sensor	glass
Housing material	Brass
Thread dimension	M18
Ambient temperature	-25 - 55 °C

Optical features

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

Other features

Reference medium / object	AO000007
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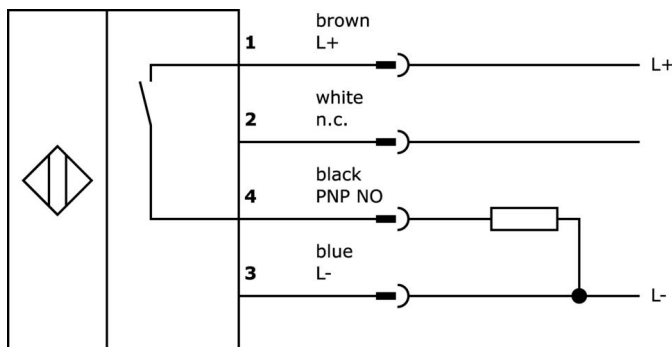
Classification

ETIM 8	EC002717 Retro-reflective sensor
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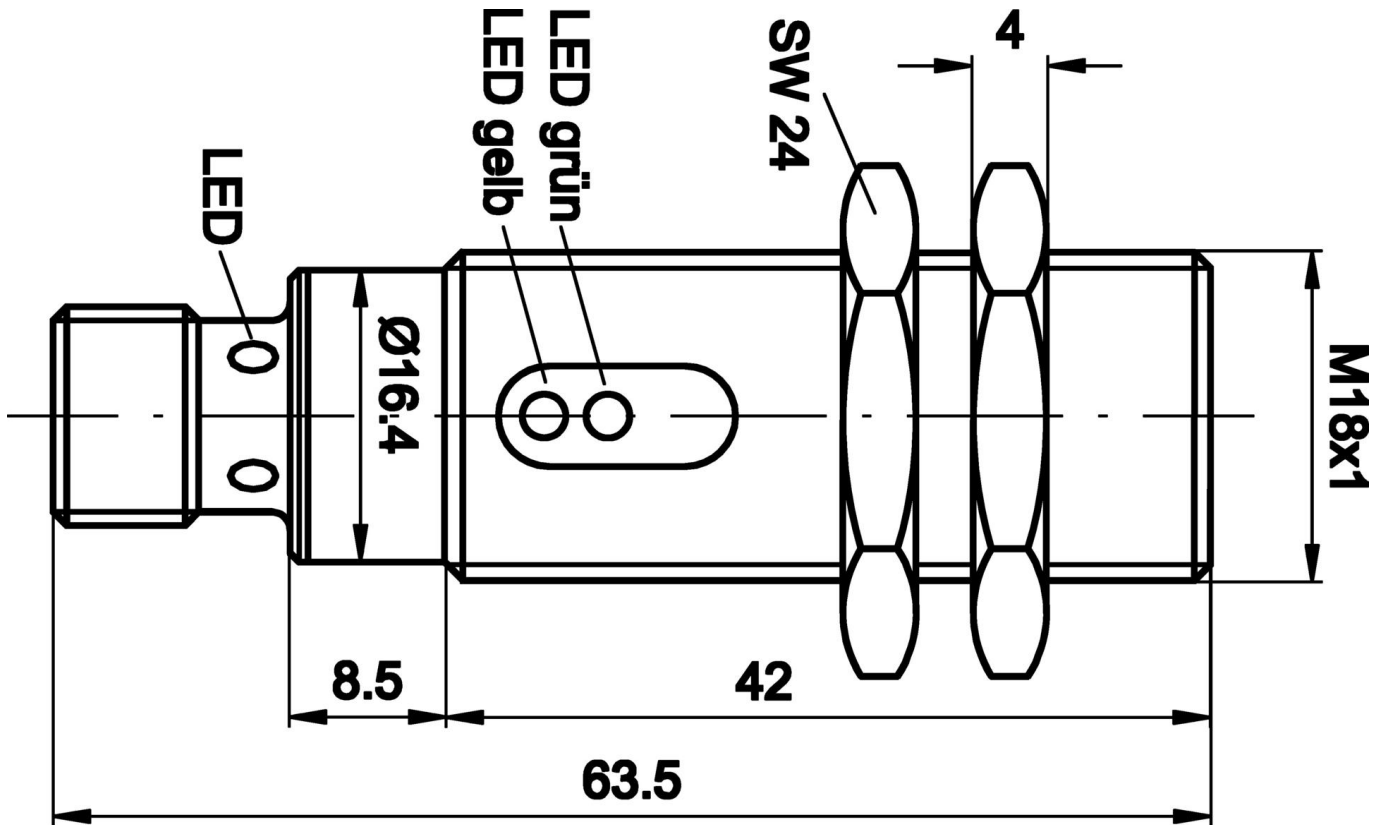
More

IPF Product Group	100 optical sensors
packaging dimensions	210 x 185 x 20 mm
gross weight	66 g
Customs tariff number	85365019
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

Connection



Dimensional drawing



Extract accessories program

AO000004



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

AO000005



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

AY000162



Accessories, magnetic, Ø43mm,
neodymium-iron-boron, inside
thread M5, rubber

AY000159



accessories sensor, Mounting
pipe, Ø12mm 200long, Aluminum
Anodised

VK030F60



Connection cable, 0.3m, M12
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

VK030F64



Connection cable, 0.3m, M12
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

VK003021



Cable socket, Angular, Suitable for
self-assembly, Screw connection,
Ø3-6.5mm, 4A, 60V, -25-90°C,
M12 Female (socket) 5pin, IP67,
PBT

VK003025



Cable socket, Straight, Suitable for
self-assembly, Screw connection,
Ø3-6.5mm, 4A, 60V, -25-90°C,
M12 Female (socket) 5pin, IP67,
PBT

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

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.