

OT120100

Optical sensors • Diffuse reflection sensors with intensity differentiation

sensor optical, diffuse-reflection sensor, M12x1 70long, Sn: 30-200, 10-30V DC, 1x PNP NO (NO), Cable 2m PVC, IP65, Brass Nickel-plated+Plastic, 0.5kHz, Infrared light, Point, Manual adjustment

including Nut



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 ms
Number of switching outputs	1
Display	LED display
Type of switching function	Normally open contact (NO)
Type of electrical connection	Cable
Type of switching output	PNP
Rated switching current	200 mA
Setting procedure	Manual adjustment
Short-circuit protection	Yes
No-load current	42 mA
Switching distance	30 - 200 mm
Switching frequency	500 Hz
Protection class	III
Voltage drop	1.8 V
Scanning function	Light switching
Reverse polarity protection	Yes
Decay time	1 ms
Operating voltage (DC)	10 - 30 V
Interference suppression	Yes

Mechanical features

Number of cores	3
Conductor cross-section	0.34 mm ²
Design	Cylinder, screw-thread
Thread length	42 mm
Thread pitch	1 mm
Cable length	2 m
Length	70 mm
Surface	nickel-plated
Degree of protection (IP)	IP65
Active area material of sensor	Plastic
Housing material	Brass
Material of cable sheath	Plastic (PVC)
Thread dimension	M12
Ambient temperature	-25 - 65 °C
Line diameter	5 mm

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

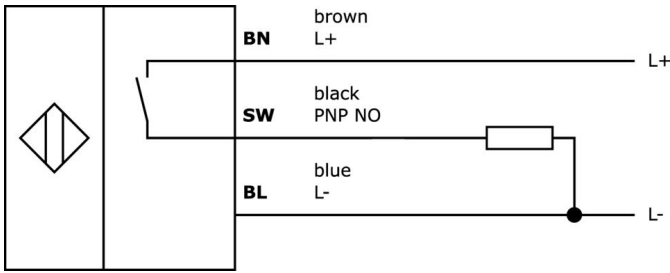
Classification

ETIM 8	EC001821 Light sensor energetic
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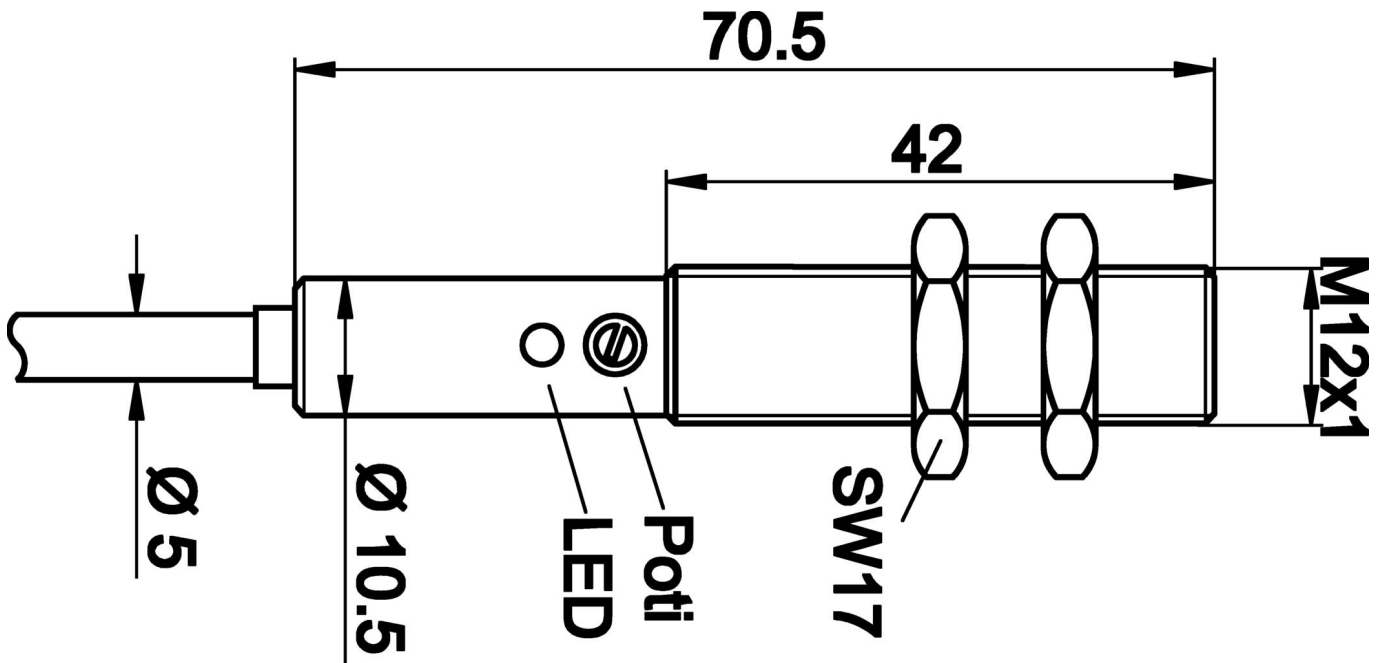
More

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

AY000141



Plastic sheath, Ø17mm, Inner diameter 10mm, -40-250°C, Glass fiber with silicone rubber, Short-term resistance to weld spatter 1200°C, Tensile strength 400N, Flexible, Flame retardant, yard good

AO000293



accessories optical, Infrared spotfinder, Plastic, With LED display, Signal tone

VK003026



Cable connector, Angular, Suitable for self-assembly, Screw connection, Ø3-6.5mm, 4A, 240V, -25-90°C, M12 Male (connector) 4pin, IP67, PBT

VK003028



Cable connector, Straight, Suitable for self-assembly, Screw connection, Ø3-6.5mm, 4A, 240V, -25-90°C, M12 Male (connector) 4pin, IP67, PBT

AY000070



Tool, Flat-tip screwdriver, 1.6x0.4mm, Grip design 1-component

AY000154



Tool, Screwdriver set, Internal hexagon 0.7mm, Internal hexagon 0.9mm, Internal hexagon 1.3mm, Internal hexagon 1.5mm, Internal hexagon 2mm, Slot 1.5mm, Slot 2mm, Slot 2.5mm, Chromium steel

AY000115



accessories sensor, Fixture kit, Metal, ball joint

AY000162



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

AY000159



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

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.