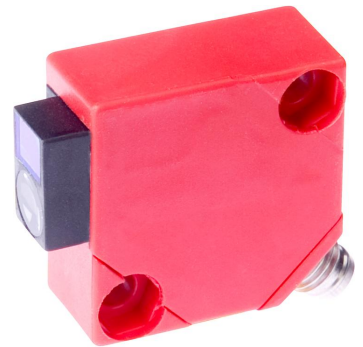


OT150471

Optical sensors • Diffuse reflection sensors with background suppression

Optical Sensor, Diffuse Reflection Sensor, 30x30x15mm, Sn: 15-150, 10-35 V DC, 2x PNP exclusive-OR, 4-pin M8 connector, IP67, PBTP + glass, 0.5 kHz, unpolarized red light, spot, manual setting

including Mounting bracket, Nut, Screw, Washer



Optical sensors operate contactless. They detect objects regardless of their characteristics (e.g., shape, color, surface texture, material). Their basic operating principle is based on the transmission and reception of light. There are three versions: 1. The through-beam sensor consists of two separate devices—a transmitter and a receiver—that are aligned with each other. When the light beam between the two devices is interrupted, the switching output integrated into the receiver changes its status. 2. In a reflective light barrier, the transmitter and receiver are housed in a single device. The transmitted light beam is reflected toward the receiver by a reflector mounted opposite it. As soon as the light beam is interrupted, the switching output integrated into the device changes its status. 3. In a diffuse reflection sensor, the transmitter and receiver are housed in a single device. The emitted light beam is reflected by the object to be detected. As soon as the receiver detects the reflected light, the switching output integrated into the device changes its status.

Electrical features

Response/decay time	1 ms
Number of switching outputs	2
Display	LED display
Type of switching function	Exclusive-OR
Type of electrical connection	M8-connector
Type of switching output	PNP
Rated switching current	200 mA
Readiness delay	100 ms
Setting procedure	Manual adjustment
Operating principle	background suppression
No-load current	25 mA
Number of pins	4
Residual ripple	20 %
Switching distance	15 - 150 mm
Switching frequency	500 Hz
Voltage drop	2 V
Scanning function	Light-/dark-on mode
Decay time	1 ms
Operating voltage (DC)	10 - 35 V
protection functions	short circuit protection reverse polarity protection

Mechanical features

Design	Cuboid
Width	15 mm
Height	30 mm
Length	30 mm
Degree of protection (IP)	IP67
Active area material of sensor	glass
Housing material	PBT
Ambient temperature	-25 - 55 °C

Optical features

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

Other features

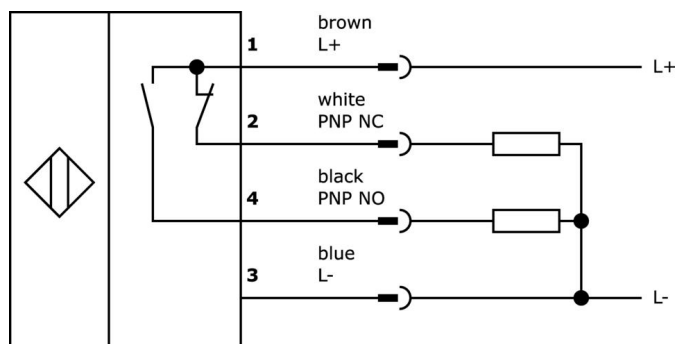
Reference medium / object	Material with 90% reflectivity
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Classification

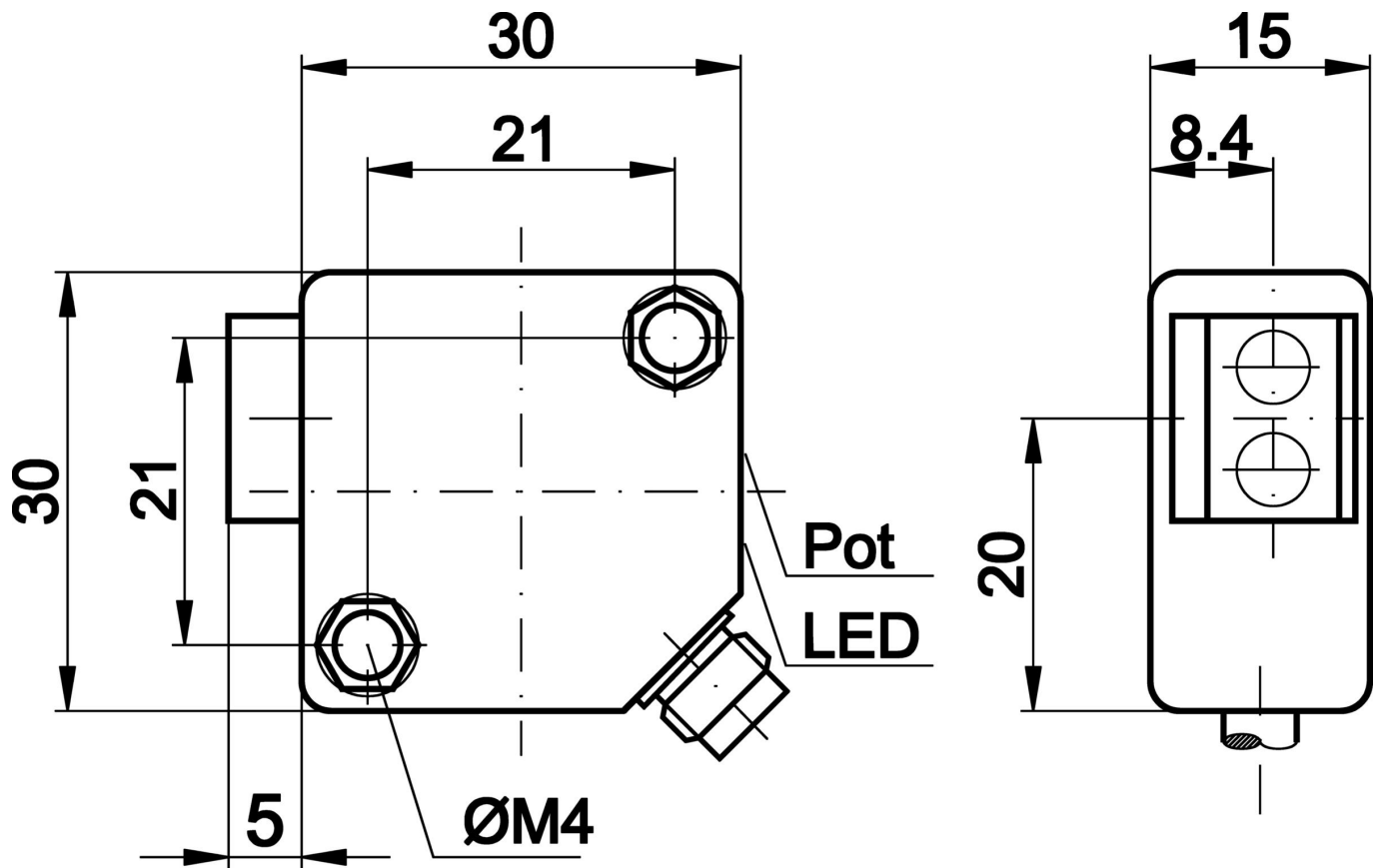
ETIM 8

More

IPF Product Group	100 optical sensors
packaging dimensions	210 x 180 x 15 mm
gross weight	62 g
customs tariff number	85365019
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

Connection


Dimensional drawing



Extract accessories program

AY000114



accessories sensor, Fixture kit,
Metal, ball joint

AY000162



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

AO000045



accessories optical, Mounting
angle bracket, 16x15x42mm,
Mounting material for sensor,
brackets, Steel, 90°

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.