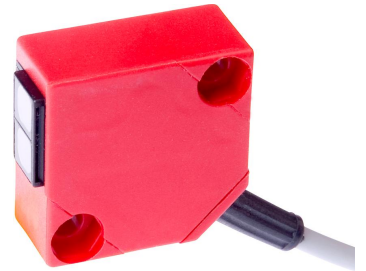


## OT150400

### Optical sensors • Diffuse reflection sensors with intensity differentiation

Sensor Optical, diffuse reflection sensor, 30x30x15mm, Sn: 0-1200, 10-35V DC, 2x PNP exclusive-OR, cable tail 3m PVC, IP67, PBTP+glass, 1kHz, infrared light, point, manual setting

including Mounting bracket, Nut, Screw, 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	2
Display	LED display
Type of switching function	Exclusive-OR
Type of electrical connection	Cable
Type of switching output	PNP
Rated switching current	200 mA
Readiness delay	100 ms
Setting procedure	Manual adjustment
Relative hysteresis	10 %
Short-circuit protection	Yes
No-load current	20 mA
Residual ripple	20 %
Switching distance	0 - 1200 mm
Switching frequency	1000 Hz
Protection class	III
Voltage drop	2 V
Clock frequency of the transmitter	15 kHz
Scanning function	Light-/dark-on mode
Reverse polarity protection	Yes
Decay time	0.5 ms
Operating voltage (DC)	10 - 35 V

**Mechanical features**

Number of cores	4
Conductor cross-section	0.14 mm <sup>2</sup>
Design	Cuboid
Width	15 mm
Height	30 mm
Cable length	3 m
Length	30 mm
Degree of protection (IP)	IP67
Active area material of sensor	glass
Housing material	PBT
Material of cable sheath	Plastic (PVC)
Ambient temperature	-25 - 55 °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

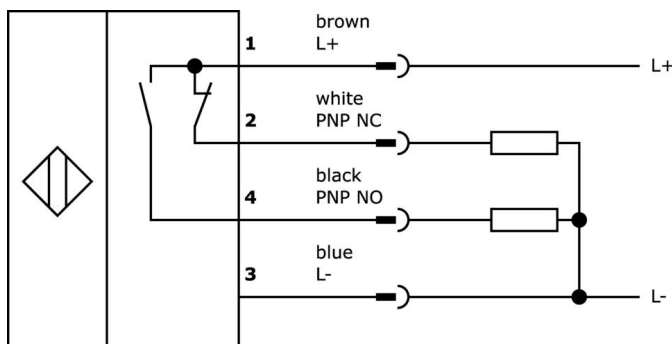
**Classification**

ETIM 8	EC001821 Light sensor energetic
--------	---------------------------------

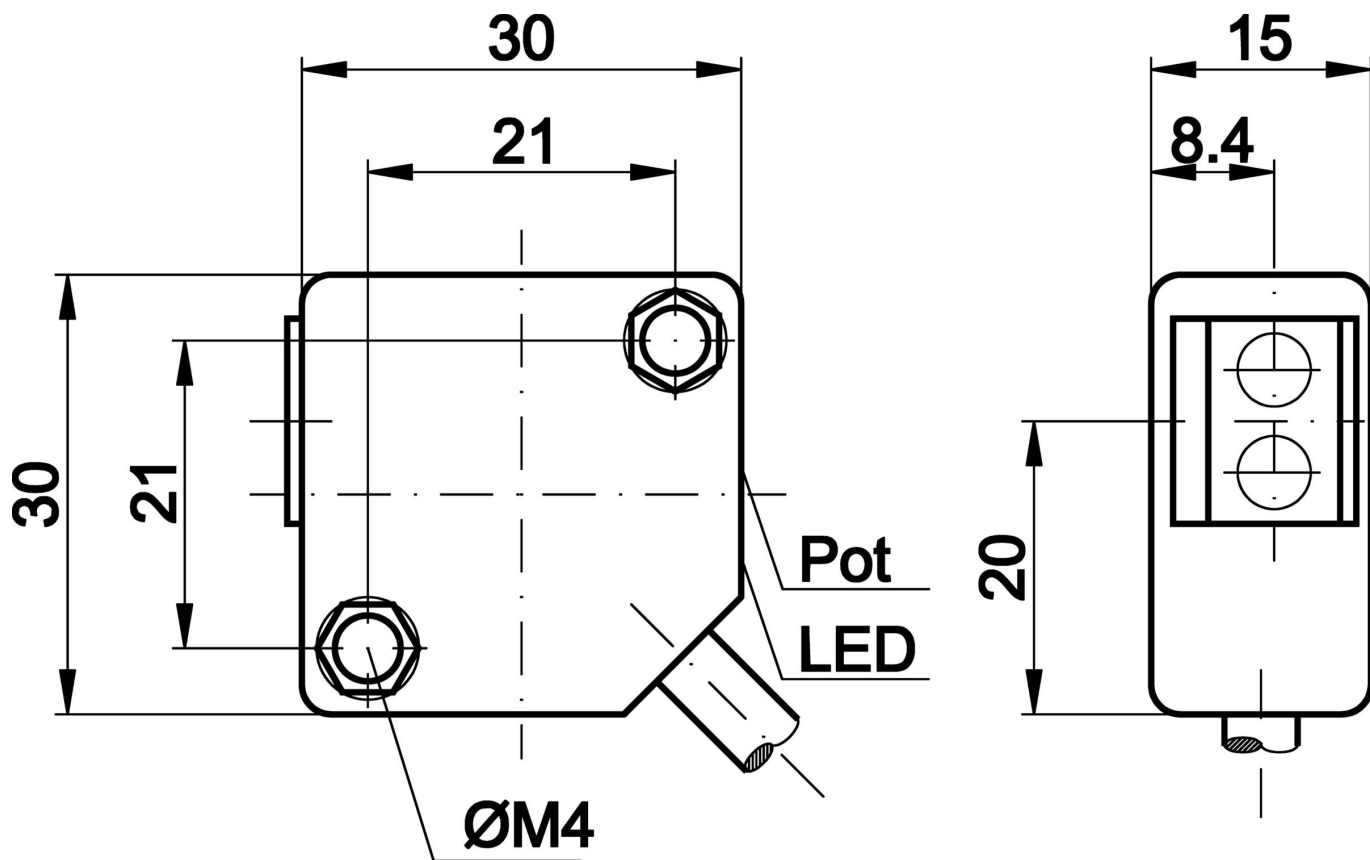
**More**

IPF Product Group	100 optical sensors
packaging dimensions	215 x 180 x 15 mm
gross weight	98 g
Customs tariff number	85365019
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

**Connection**



**Dimensional drawing**



**Extract accessories program**

**VL250100**



Logic module, 49x80x26mm, AND, 4fold, 10-35V DC, sensor side Clamp, control side Clamp, IP40, Plastic

**VL250120**



Logic module, 49x80x26mm, OR, 4fold, 10-35V DC, sensor side Clamp, control side Clamp, IP40, Plastic

**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

**VK003079**



Cable connector, Straight, Suitable for self-assembly, Soldering connection, Ø3.5-5mm, 4A, 30V, -40-85°C, M8 Male (connector) 4pin, IP67, Brass

**VK003179**



Cable connector, Straight, Suitable for self-assembly, Screw connection, Ø3.5-5mm, 4A, 30V, -40-85°C, M8 Male (connector) 4pin, IP67, Brass

**AO000045**



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

**AY000114**



accessories sensor, Fixture kit, Metal, ball joint

**AO000293**



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

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.