

OR310300

Optical sensors • Retro-reflective sensors

Sensor Optical, reflex, 32x20x12mm, red light polarized, dot, Sn: 20-6000, 10-30V DC, PNP programmable/configurable, 2m cable tail 4-wire, IP67, plastic ABS+PMMA, With polarizing filter

- / plastic housing
- / compact design
- / switching output no/nc switchable
- / Cable connection



**Polarizing filter
visible red light**

Optical sensors work contactless. They detect objects, regardless of their properties (e.g. shape, color, surface structure, material). The basic mode of operation is based on the transmitter and receiver of light. There are three different versions: 1. the through-beam sensor consists of two separate devices, a transmitter and a receiver, which are aligned with each other. If the light beam between the two devices is interrupted, the switching output integrated in the receiver changes its status. 2. in the reflex light barrier, the transmitter and receiver are located in one device. The transmitted light beam is reflected onto the receiver by a reflector to be mounted opposite. As soon as the light beam is interrupted, the switching output integrated in the device changes its status. 3. the diffuse reflection sensor has a transmitter and receiver in one device. The transmitted light beam is reflected by the object 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
Display	LED display
Type of switching function	Programmable/configurable
Type of electrical connection	Cable
Type of switching output	PNP
Rated switching current	100 mA
Short-circuit protection	Yes
No-load current	20 mA
Reaction time	1 ms
Residual ripple	10 %
Switching distance	20 - 4500 mm
Switching frequency	500 Hz
Voltage drop	2 V
Scanning function	Light-/dark-on mode
Reverse polarity protection	Yes
Decay time	1 ms
Operating voltage (DC)	10 - 30 V
With polarizing filter	Yes

Mechanical features

Number of cores	4
Wire cross section	0,14 mm ²
Design	Cuboid
Width	12 mm
Height	31.5 mm
Cable length	2 m
Storage temperature	-20 - 70 °C
Length	20 mm
Maximum tightening torque	0.5 Nm
Shock resistance	30 g
Degree of protection (IP)	IP67
Vibration resistance	55 Hz
Active area material of sensor	Plastic (PMMA)
Housing material	Plastic (ABS)
Material of cable sheath	Plastic (PVC)
Ambient temperature	-20 - 55 °C
Line diameter	3.6 mm

Optical features

Light source	Polarized red light
Light beam form	Point
Wavelength of the sensor	632 nm

Other features

Reference medium / object	AO000007
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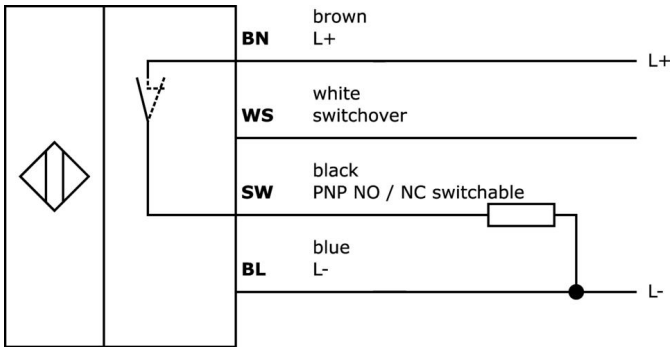
Classification

ETIM 8

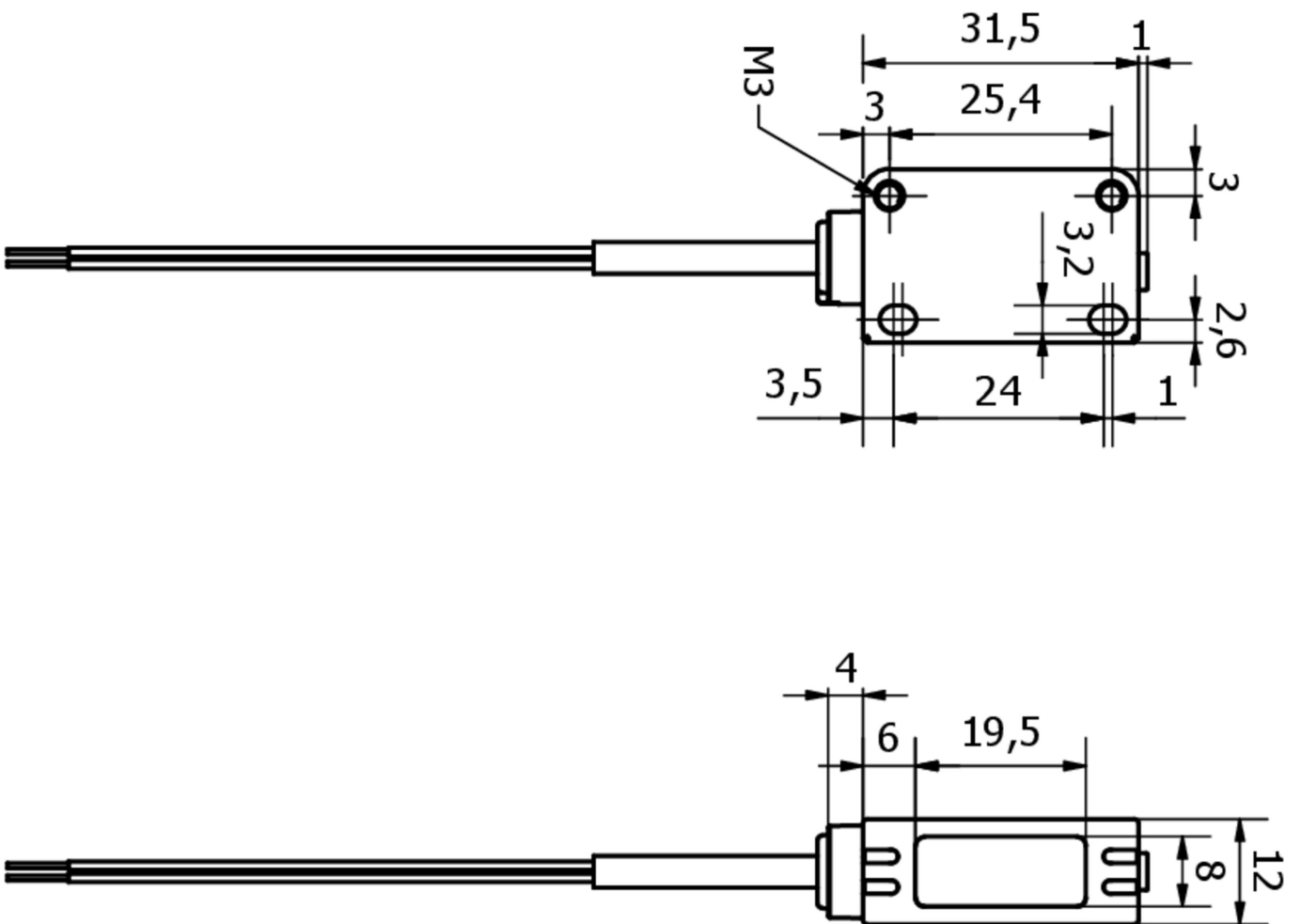
More

IPF Product Group	100 optical sensors
packaging dimensions	220 x 170 x 15 mm
gross weight	49 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

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

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



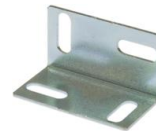
Cable connector, Straight, Suitable for self-assembly, Screw connection, Ø3-6.5mm, 4A, 240V, -25-90°C, M12 Male (connector) 4pin, IP67, PBT

AY000118



accessories sensor, Fixture kit, Metal, ball joint

AO000473



accessories optical, Mounting angle bracket, 19x19x34mm, Mounting material for sensor, brackets, Steel

AO000004



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

AO000005



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

VY000004



DC power supply, sensor tester, 120x26x72mm, 18V, 0.04A, Spring clamp connection 4pin, IP20, Plastic

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.