

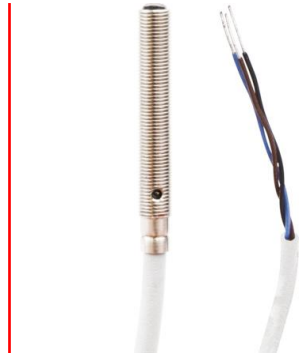
OT0591A8

Optical sensors • Diffuse reflection sensors with background suppression

Sensor Optical, diffuse reflection sensor, M5x0.5 36lang, Sn: 8-20, 10-30V diagnostic coverage, 1x PNP NO, IO-Link, cable tail 3pole 2m PUR (polyurethane), IP67, V2A+PMMA, 500Hz, red light unpolarized, point, background suppression

including Nut, Toothed washer

- / Stainless steel housing
- / High degree of protection IP67
- / LED display for switching output and functional reserve
- / Connection via PUR-cable



Subminiature devices 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	1ms
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	100mA
Readiness delay	20ms
Holding time	s
Short-circuit protection	Yes
No-load current	15mA
Line diameter	3.1mm
Reaction time	1ms
Residual ripple	10%
Switching distance	8 - 20mm
Switching frequency	500Hz
Protection class	III
Voltage drop	2V
Scanning function	Light switching
Reverse polarity protection	Yes
Decay time	1ms
Operating voltage (DC)	10 - 30V

Mechanical features

Number of cores	3
Conductor cross-section	0.14mm ²
Design	Cylinder, screw-thread
Thread length	30mm
Thread pitch	0.5mm
Cable length	2m
Length	36mm
Maximum tightening torque	1Nm
Degree of protection (IP)	IP67
Active area material of sensor	Plastic (PMMA)
Housing material	Stainless steel (V2A)
Material of cable sheath	Plastic (PUR)
Thread dimension	M5
Ambient temperature	-25 - 65°C

Optical features

Light source	Polarity free red light
Light exit	axial
Light beam form	Point
Triangulation	Background suppression
Wavelength of the sensor	630nm

Other features

Feeding technology	Yes
Reference medium / object	Material with 90% reflectivity

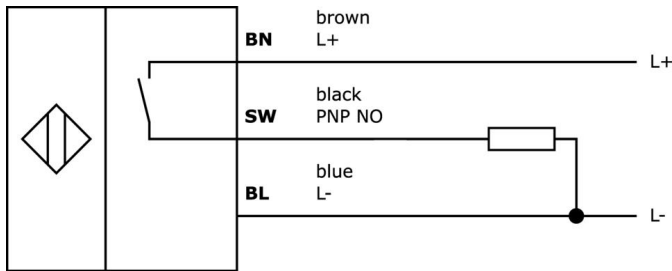
Classification

ETIM 8	EC002719 Photoelectric proximity switch with background suppression
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More

IPF Product Group	100 optical sensors
packaging dimensions	210 x 180 x 7 mm
gross weight	
Customs tariff number	85365019
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes
MTTF value	664 year(s)

Connection



Installation



Mounting / installation may only be carried out by a qualified electrician!

Disposal



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.

For suitable connection and mounting accessories, please refer to our website www.ipf-electronic.com.

Any software, drivers or IODD files that may be required to operate your device can be downloaded free of charge from our homepage: www.ipf-electronic.com

Dimensional drawing

