

OT450021

Optical sensors • Distance measurement

Sensor Optical, Push-button, 56x32x18mm, Sn:60-550mm, Triangulation, 12-30V DC, 4-20mA, 1xPNP/NPN push-pull, IO-Link, M12 connector 5pin, IP67, plastic ASA+plastic, red light non-polarized, dot, Parameterization / Teach-In



/ Point Source LED

IO-Link interface Compact dimensions

Optical sensors operate without contact. They detect objects, regardless of their nature (e.g. shape, color, surface structure, material). The basic mode of operation is based on the transmission and reception of light. Three variants are distinguished: 1. the through-beam sensor consists of two separate devices, a transmitter and a receiver, which are aligned with each other. When the light beam between the two devices is interrupted, the switching output integrated in the receiver changes its status. 2. in the case of 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. With the diffuse reflection sensor, the transmitter and receiver are located 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	0.49 ms
Display	LED display
Resolution	1 mm
Type of switching function	Normally closed contact/normally open contact
Type of analog output	4 - 20mA
Type of electrical connection	Connector M12
Type of switching output	Push-pull
Rated switching current	100 mA
Setting procedure	Parameterization Teach-In
Short-circuit protection	Yes
No-load current	40 mA
Number of pins	5
Voltage drop	3 V
Scanning function	Light-/dark-on mode
Reverse polarity protection	Yes
Measurement principle	triangulation
Supported communication interface	IO-Link
Operating voltage (DC)	12 - 30 V
Dead zone	0 - 60
Measuring range	60 - 550 mm

Mechanical features

Design	Cuboid
Width	18 mm
Height	56.2 mm
Length	32.2 mm
Degree of protection (IP)	IP67
Active area material of sensor	Plastic (PMMA)
Housing material	Plastic ASA
Ambient temperature	-25 - 60 °C

Optical features

Light source	Polarity free red light
Light exit	Lateral
Light beam form	Point
Triangulation	Background suppression
Wavelength of the sensor	630 nm
Light spot diameter at focal point	9 mm

Other features

IO-Link version	V1.1.2
Operational mode	Background suppression
Reference medium / object	Material with 90% reflectivity

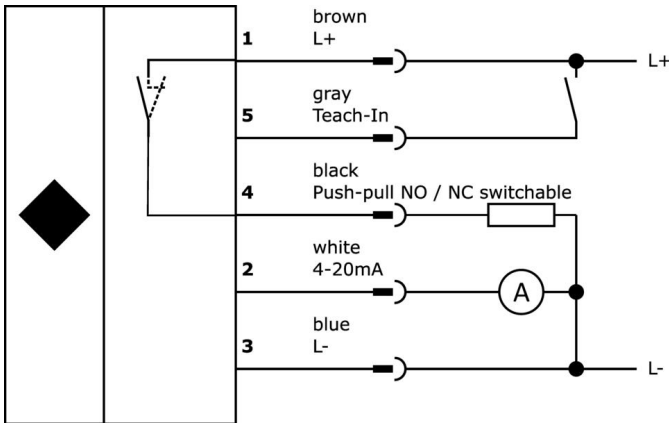
Classification

ETIM 8	EC001825 Optical distance sensor
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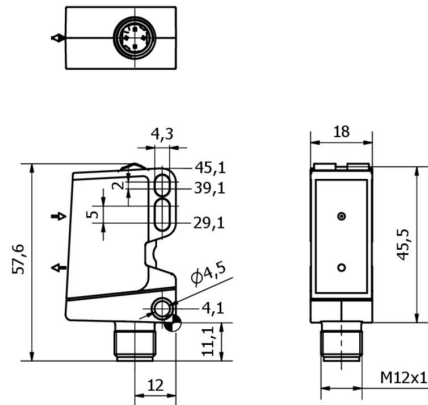
More

IPF Product Group	109 optical sensors (analog)
packaging dimensions	123 x 77 x 25 mm
gross weight	40 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

VK003021



Cable socket, Angular, Suitable for self-assembly, Screw connection, Ø3-6.5mm, 4A, 60V, -25-90°C, M12 Female (socket) 5pin, IP67, PBT

VK003025



Cable socket, Straight, Suitable for self-assembly, Screw connection, Ø3-6.5mm, 4A, 60V, -25-90°C, M12 Female (socket) 5pin, IP67, PBT

AY000138



accessories sensor, Fixture kit, Metal, ball joint

VY000004



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

VY200120



time stage, Turn-on/turn-off delayed, Ø20mm 60long, 65s, 10-30V DC, 1x NO, M12 4pin, IP67, Plastic, Teach-In

VY030125



time stage, Turn-on delay, 0-0.15s, 10-35V DC, 1x NO, M12 3pin 0.3m, IP67, Plastic, Potentiometer

AY98A607



accessories sensor, Teflon cap, Ø16mm 16long, inner thread 12, Polytetrafluorethylene (PTFE)

VL600104



Logic module, 42x122x60mm, AND, 4-gang, 10-30V DC, 4-pin M12 socket on sensor side, 4-pin M12 connector on control side, IP67, plastic

VL600108



Logic module, 42x172x60mm, AND, 8fold, 10-30V DC, sensor side M12 Female (socket) 4pin, control side M12 Male (connector) 4pin, IP67, 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.

/ 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