OTQ80571

Optical sensors ● Diffuse reflection sensors with background suppression

Optical sensor, diffuse reflection sensor, 26x15x8.2mm, Sn: 10-100, 13-30V diagnostic coverage, 1x PNP NC/NO, IO-Link, M8 plug connector 4-pin 0.2m PUR (polyurethane), IP67, PUR (polyurethane)+PMMA, 1kHz, blue light, line, teach-in

/ **IO-Link**
/ **background suppression**
/ **M8 plug connection**

Visible blue light
Setting by teach-in

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	0.7ms
Number of switching outputs	1
Display	LED display
Type of switching function	Normally closed contact/normally open contact
Type of electrical connection	Cable connector M8
Type of switching output	PNP
Rated switching current	50mA
Readiness delay	300ms
Setting procedure	Teach-In
Short-circuit protection	Yes
No-load current	20mA
Number of pins	4
Reaction time	0.7ms
Switching distance	10 - 100mm
Switching frequency	700Hz
Scanning function	Light-/dark-on mode
Reverse polarity protection	Yes
Decay time	0.7ms
Supported communication interface	IO-Link
Operating voltage (DC)	13 - 30V
Dead zone	0 - 3

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Mechanical features

Design	Cuboid
Width	8.2mm
Height	25.7mm
Cable length	0.2m
Storage temperature	-20 - 80°C
Length	14.6mm
Degree of protection (IP)	IP67
Active area material of sensor	Plastic (PMMA)
Housing material	PUR (Polyurethane)
Material of cable sheath	Plastic (PUR)
Ambient temperature	-20 - 60°C

Optical features

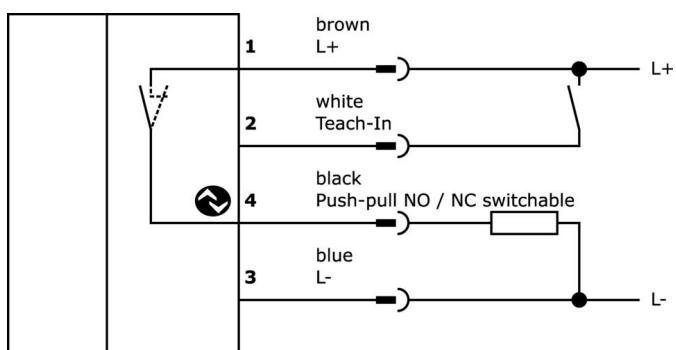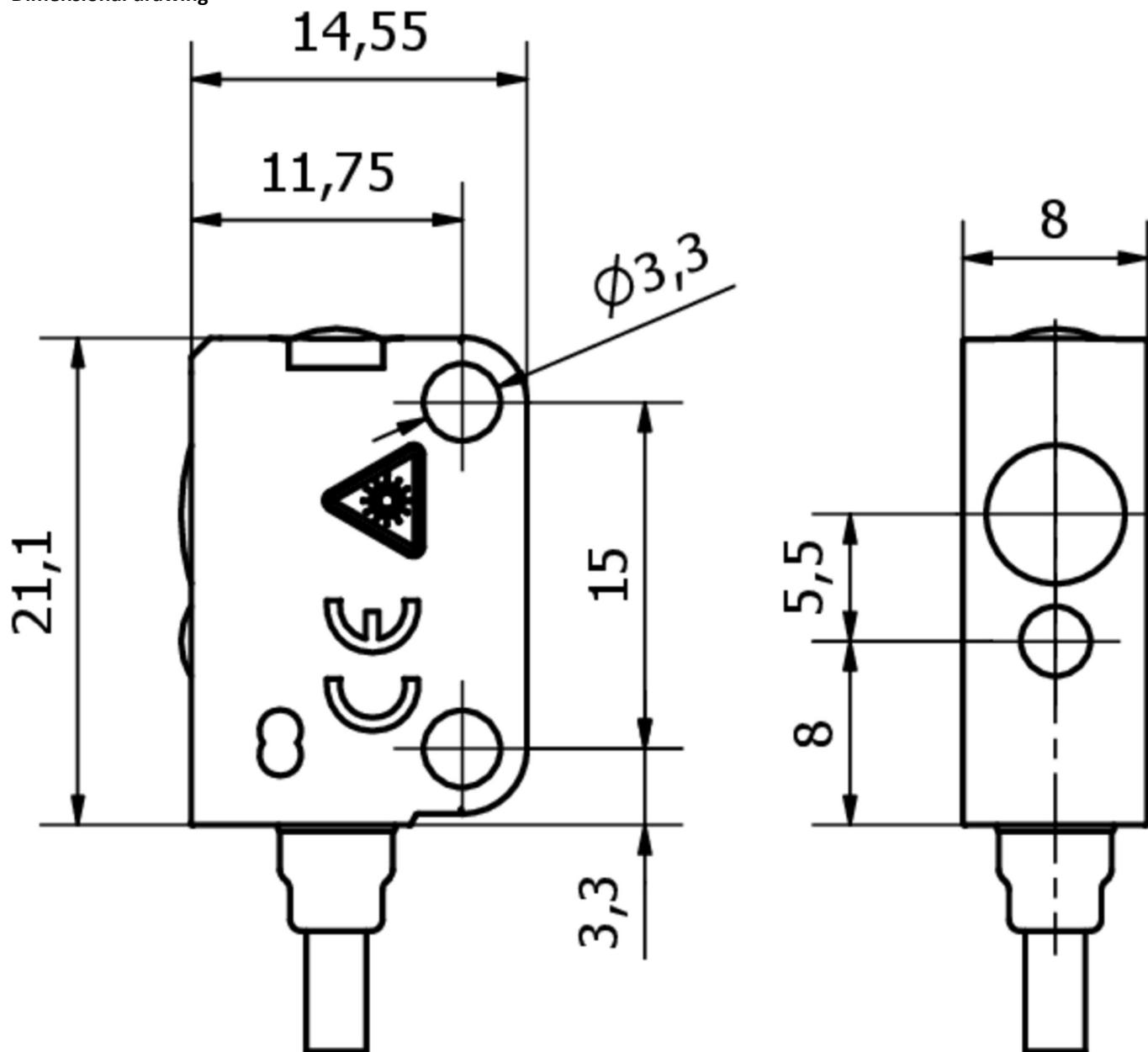| Light source	Blue light
Light beam form	Line
Wavelength of the sensor	470nm
Light spot length at focal point	1.9mm
Focus distance	30mm
Light spot width at focal point	1.1mm

Other features

IO-Link version	V1.1
Operational mode	Background suppression
Reference medium / object	Material with 90% reflectivity

Classification

ETIM 8	

More

IPF Product Group	100 optical sensors
packaging dimensions	91 x 60 x 30 mm
gross weight	28 g
Customs tariff number	85365019
WEEE number	40951076
OzDS-compliant	Yes
POP-compliant	Yes
Reach-compliant	Yes
RoHS-compliant	Yes

Connection

Pin	Color	Function
1	brown	L+
2	white	Teach-In
4	black	Push-pull NO / NC switchable
3	blue	L-

Dimensional drawing

Extract accessories program

AY98C293

accessories sensor, Teflon cap, M8x1 5long, Polytetrafluorethylene (PTFE)

NG400501

DC power supply, single-phase, 125x114x40mm, 24-28V, 5A, 90-264V AC 50Hz, 90-264V AC 60Hz, 127-370V DC, Screw connection, IP20, Aluminum, Stabilized, Output voltage, pulsed

AO000075

accessories optical, Mounting angle bracket, M3x0.5 12long, Mounting material for sensor, brackets, Steel

AO000076

accessories optical, Mounting angle bracket, M3x0.5 13long, Mounting material for sensor, brackets, Steel

VK003071

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

VK003075

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

VK000040

Adaption, M8 Female (socket) 4pin Straight, M12 Male (connector) 4pin Straight, 24V, -25-85°C, IP67, Oil and cooling lubricants, Welding area

VK030F81

Connection cable, 0.3m, M8 socket 4-pin angular, M12 connector 4-pin straight, 4x0.34mm², PUR (polyurethane), 60V, IP67, suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

VK030F85

Connection cable, 0.3m, M8 socket 4-pin straight, M12 connector 4-pin straight, 4x0.34mm², PUR (polyurethane), 60V, IP67, suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

You can find further accessories on our homepage

Installation

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

Disposal

Safety warnings

I Before initial operation, please make sure to follow all safety instructions that may be provided in the product information.

I Never use these devices in applications where the safety of a person depends on their functionality.

I 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