

OTQ80571

Optical sensors • Diffuse reflection sensors with background suppression

Optical sensor, diffuse reflection sensor, 26x15x8.2mm, Sn: 10-100, 13-30V DC, 1x PNP NC/NO, IO-Link, M8 plug connector 4-pin 0.2m PUR (polyurethane), IP67, PUR (polyurethane)+PMMA, 700Hz, blue light, dot, 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	0.7 ms
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	50 mA
Readiness delay	300 ms
Setting procedure	Teach-In
No-load current	20 mA
Number of pins	4
Reaction time	0.7 ms
Switching distance	10 - 100 mm
Switching frequency	700 Hz
Scanning function	Light-/dark-on mode
Decay time	0.7 ms
Supported communication interface	IO-Link
Operating voltage (DC)	13 - 30 V
Dead zone	0 - 3
ardTEEL_Schutzfunktionen	Reverse polarity protection Short circuit protection

Mechanical features

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

Optical features

Light source	Blue light
Light beam form	Point
Wavelength of the sensor	470 nm
Light spot length at focal point	1.9 mm
Focus distance	30 mm
Light spot width at focal point	1.1 mm
Risk group	2

Other features

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

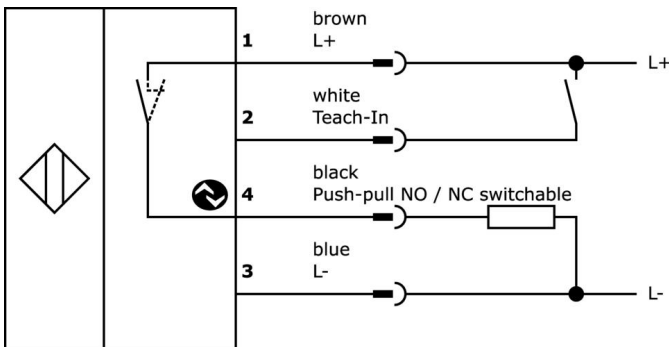
Classification

ETIM 8

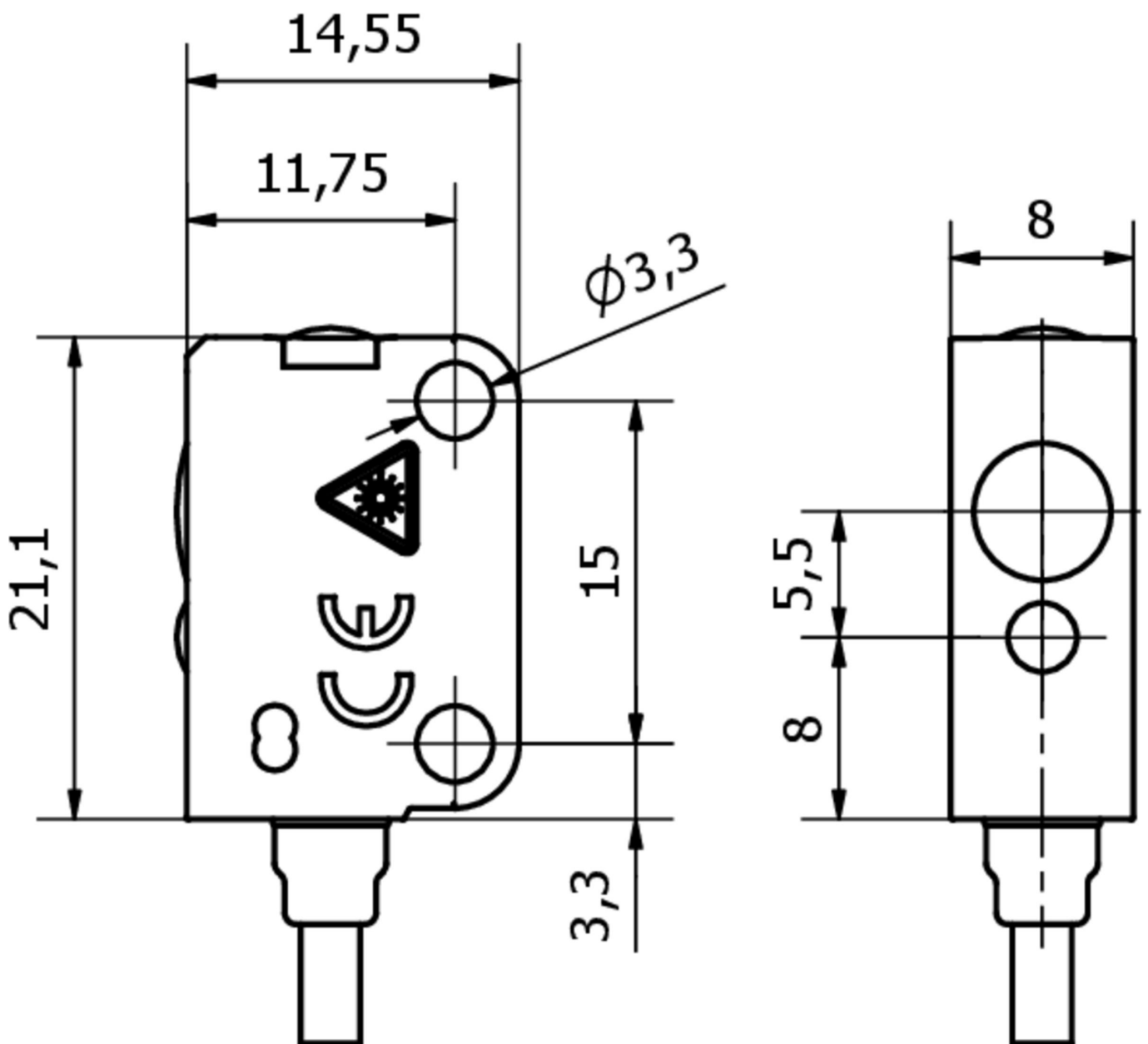
More

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



Dimensional drawing



Extract accessories program

AY98C293



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

NG400501



DC power supply, 1-phase,
125x114x40mm, 24-28V, 5A, 90-
264V AC 50Hz, 90-264V AC 60Hz,
127-370V DC, screw connection,
IP20, aluminum, stabilized, pulsed
output voltage

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

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