

# OT340571

## Optical sensors • Diffuse reflection sensors with background suppression

Optical sensor, diffuse reflection sensor, 41x20x12mm, Sn: 10-200, 10-30V DC, 1x PNP/ NPN push-pull, IO-Link, M8 plug-in connector 4-pin, IP67, plastic ABS+PMMA, 700Hz, blue light, dot, teach-in

- / plastic housing
- / Degree of protection IP67 & IP69k
- / Safe switching even with shiny objects
- / 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	0.5 ms
Number of switching outputs	1
Display	LED display
Type of switching function	Normally closed (n.o. for PNP) Normally closed (n.c. for NPN) - Adjustable
Type of electrical connection	Connector M8
Type of switching output	Push-pull
Rated switching current	100 mA
Short-circuit protection	Yes
No-load current	30 mA
Number of pins	4
Switching distance	10 - 200 mm
Switching frequency	700 Hz
Protection class	II
Scanning function	Light-/dark-on mode
Reverse polarity protection	Yes
Decay time	0.5 ms
Supported communication interface	IO-Link
Operating voltage (DC)	10 - 30 V

**Mechanical features**

Design	Cuboid
Width	12 mm
Height	40.6 mm
Storage temperature	-20 - 80 °C
Length	20 mm
Degree of protection (IP)	IP67 / IP69k
Active area material of sensor	Plastic (PMMA)
Housing material	Plastic (ABS)
Ambient temperature	-20 - 60 °C

**Optical features**

Light source	Blue light
Light beam form	Point
Wavelength of the sensor	450 nm
Light spot length at focal point	7 mm
Light spot width at focal point	7 mm
Risk group	2

**Other features**

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

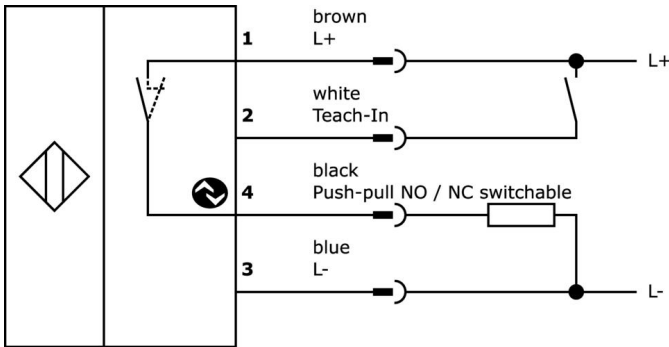
**Classification**

ETIM 8	EC002719 Photoelectric proximity switch with background suppression
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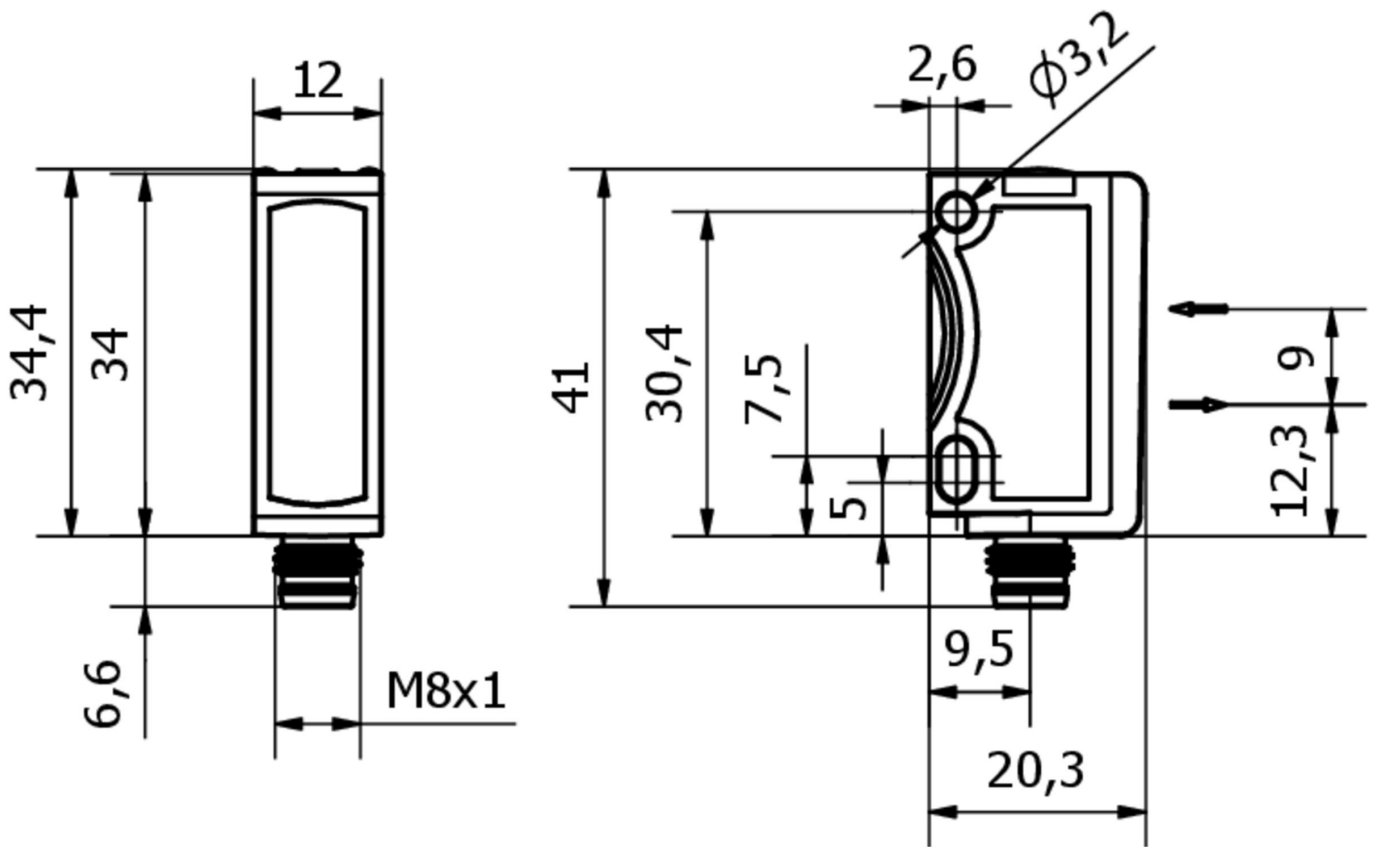
**More**

IPF Product Group	100 optical sensors
packaging dimensions	91 x 60 x 30 mm
gross weight	25 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**

**VK030F81**



Connection cable, 0.3m, M8 socket 4-pin angular, M12 connector 4-pin straight, 4x0.34mm<sup>2</sup>, 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, 4x0.34mm<sup>2</sup>, PUR (polyurethane), 60V, IP67, suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

**VY000005**



IO-Link master, 41x24x67mm, IO-Link, M12, With USB interface

**NG530002**



DC power supply, single-phase, 99x114x22mm, 24V, 0.1A, Number of relay outputs 2, 100-264V AC 50Hz, 100-264V AC 60Hz, Screw connection, IP20, Plastic, Stabilized, Output voltage, pulsed

**AY98C293**



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

**AY000118**



accessories sensor, Fixture kit, Metal, ball joint

**VK200371**



Connection cable, 2m, M8 Female (socket) 4pin Angular, Free conductor end, 4x0.34mm<sup>2</sup>, PUR (Polyurethane), Ø4.7mm, 30V, -30-90°C, IP67, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-free

**VK200375**



Connection cable, 2m, M8 Female (socket) 4pin Straight, Free conductor end, 4x0.34mm<sup>2</sup>, PUR (Polyurethane), Ø4.7mm, 30V, -30-90°C, IP67, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-free

**VK003071**



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

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](http://www.ipf-electronic.com)