

## PT340070

### Laser sensors • Distance measurement

Sensor laser, diffuse reflection sensor, 41x20x12mm, Sn:20-100mm, triangulation, 13-30V DC, -20-60°C, 1x PNP/NPN NC/NO, 1-10V, IO-Link, M8 connector 4-pin, IP67, plastic ABS+PMMA, 1kHz, laser diode, red light, dot, 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	3.4 ms
Number of switching outputs	1
Display	LED display
Resolution	0.12 mm
Type of switching function	Normally closed contact/normally open contact
Type of analog output	1 - 10V
Type of electrical connection	Connector M8
Type of switching output	PNP/NPN
Rated switching current	100 mA
Readiness delay	300 ms
Setting procedure	Teach-In
Short-circuit protection	Yes
No-load current	30 mA
Number of pins	4
Residual ripple	10 %
Switching frequency	1000 Hz
Protection class	II
Reverse polarity protection	Yes
Absolute linearity deviation	0.25 mm
Absolute repeat accuracy	0.25 mm
Measurement principle	triangulation
Supported communication interface	IO-Link
Operating voltage (DC)	13 - 30 V
Measuring range	20 - 100 mm

**Mechanical features**

Design	Cuboid
Width	12 mm
Height	40.6 mm
Storage temperature	-40 - 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**

Laser class	Class 1
Light source	Laser diode, red light
Light beam form	Point
Light spot diameter at focal point	1 mm

**Other features**

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

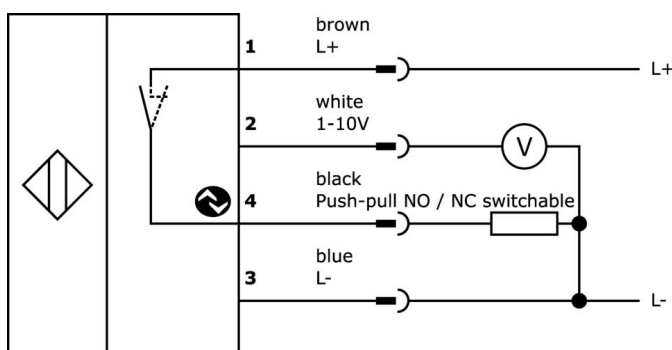
**Classification**

ETIM 8	EC001825 Optical distance sensor
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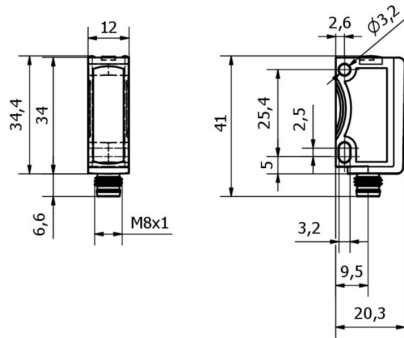
**More**

IPF Product Group	169 laser diffuse reflection sensors (analog)
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

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**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)