

PT340070

Laser sensors • Distance measurement

Sensor laser, diffuse reflection sensor, 41x20x12mm, Sn:20-100mm, triangulation, 13-30V diagnostic coverage, -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 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 light barrier 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 state. 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 state. 3 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 state.

Electrical features

Response/decay time	3.4ms
Number of switching outputs	1
Display	LED display
Resolution	0.12mm
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	100mA
Readiness delay	300ms
Setting procedure	Teach-In
Short-circuit protection	Yes
No-load current	30mA
Number of pins	4
Residual ripple	10%
Switching frequency	1000Hz
Protection class	II
Reverse polarity protection	Yes
Absolute linearity deviation	0.25mm
Absolute repeat accuracy	0.25mm
Measurement principle	triangulation
Operating voltage (DC)	13 - 30V
Measuring range	20 - 100mm

Mechanical features

Design	Cuboid
Width	12mm
Height	40.6mm
Storage temperature	-40 - 80°C
Length	20mm
Degree of protection (IP)	IP67 / IP69k
Volume	Small
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	1mm

Other features

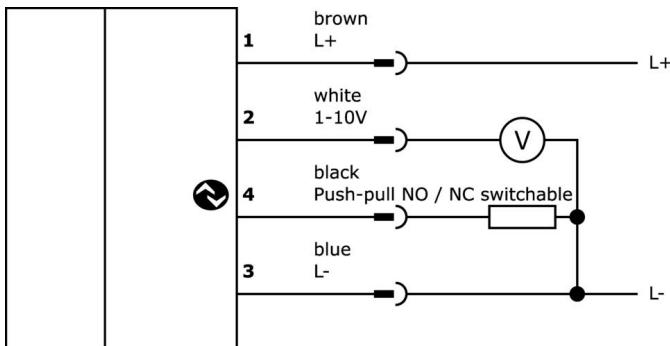
IO-Link version	V1.1
Reference medium / object	Material with 90% reflectivity
Ambient temperature	-20 - 60°C

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**Installation**

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

Disposal**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.

For suitable connection and mounting accessories, please refer to our website www.ipf-electronic.com.

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

Dimensional drawing