

PT380523

Laser sensors • Diffuse reflection sensors with background suppression

Sensor laser, diffuse reflection sensor, 48x38x15mm, Sn: 5-400, 18-30V DC, 2x PNP/ NPN NO, M12 plug connector 5-pin, IP67, metal+glass, 2kHz, laser diode, red light, dot, manual setting



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

Number of switching outputs	2
Display	LED display
Type of switching function	Normally open contact (NO)
Type of electrical connection	Connector M12
Type of switching output	PNP/NPN
Rated switching current	100 mA
Readiness delay	100 ms
Setting procedure	Manual adjustment
Short-circuit protection	Yes
Laser power	1 mW
No-load current	35 mA
Number of pins	5
Switching distance	50 - 400 mm
Switching frequency	2000 Hz
Reverse polarity protection	Yes
Operating voltage (DC)	18 - 30 V
Dead zone	0 - 5

Mechanical features

Design	Cuboid
Width	15 mm
Height	48 mm
Storage temperature	-10 - 40 °C
Length	38 mm
Degree of protection (IP)	IP67
Active area material of sensor	glass
Housing material	Metal
Ambient temperature	-10 - 40 °C

Optical features

Laser class	Class 2
Light source	Laser diode, red light
Light beam form	Point
Wavelength of the sensor	670 nm
focus	350 mm
Light spot diameter at focal point	0.5 mm

Other features

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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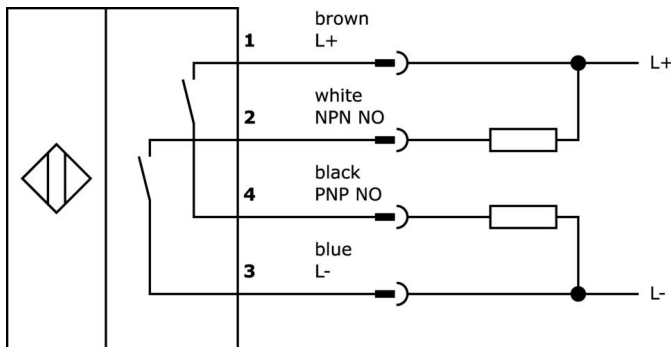
More

IPF Product Group	160 laser sensor
packaging dimensions	123 x 77 x 25 mm
gross weight	90 g
Customs tariff number	85365019
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

Important notes

/ The enclosed warning signs must be clearly visible near the laser beam outlet in accordance with the accident prevention regulations for laser beams (BGV B 2) dated 01.01.1993.

Connection



Extract accessories program

AY98A607



accessories sensor, Teflon cap, Ø16mm 16long, inner thread 12, Polytetrafluorethylene (PTFE)

AY000119



accessories sensor, Fixture kit, Metal, ball joint

AY000162



Accessories, magnetic, Ø43mm, neodymium-iron-boron, inside thread M5, rubber

VY200120



time stage, Turn-on/turn-off delayed, Ø20mm 60long, 65s, 10-30V DC, 1x NO, M12 4pin, IP67, Plastic, Teach-In

VY030125



time stage, Turn-on delay, 0-0.15s, 10-35V DC, 1x NO, M12 3pin 0.3m, IP67, Plastic, Potentiometer

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

WS200120



standstill monitor, Ø20mm 60long, 0.015-1000Hz, 10-30V DC, 1x PNP NO, 4pin, IP67, plastic, teach-in

CI200120



counter pulse, 60mm long, 10kHz, 1x preset, 10-30V DC, 1x PNP NO (NO), Connector M12 4pin, IP67, Plastic, Adding

VY000004



DC power supply, sensor tester, 120x26x72mm, 18V, 0.04A, Spring clamp connection 4pin, IP20, Plastic

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.