

PT70C937

Laser sensors • Diffuse reflection sensors with background suppression

sensor laser, diffuse-reflection sensor, 90x70x30mm, Sn: 100-30000, 18-30V DC, -40-50°C, 2x PNP/NPN Push-pull, Connector M12 5pin, IP67, Zinc die-cast+Glass, 0.1kHz, Laser diode, red light, Point, Teach-In



Optical sensors function contactlessly. They detect objects independent of their characteristics (e.g., shape, color, surface structure, material). The basic operating principle is based on the transmission and reception of light. There are three different versions: 1. The through-beam sensor consists of two separate devices, a transmitter and a receiver that are aligned with one another. If the light beam between the two devices is interrupted, the switching output integrated in the receiver changes its status. 2. With the retro-reflective sensor, the transmitter and receiver are located in one device. The emitted light beam is reflected back to the receiver by a reflector that is to be mounted opposite the device. As soon as the light beam is interrupted, the switching output integrated in the device changes its status. 3. With the diffuse reflection sensor, the transmitter and receiver are in one device. The emitted light beam is reflected by the object that is 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	5ms
Number of switching outputs	2
Display	LED display
Resolution	5mm
Type of switching function	Schließer (NO bei PNP) Öffner (NC bei NPN)
Type of electrical connection	Connector M12
Type of switching output	Push-pull
Rated switching current	100mA
Readiness delay	200ms
Setting procedure	Teach-In
No-load current	120mA
Number of pins	5
Residual ripple	15%
Switching distance	100 - 30000mm
Switching frequency	100Hz
Voltage drop	1.8V
Scanning function	Light-/dark-on mode
Operating voltage (DC)	18 - 30V

Mechanical features

Design	Cuboid
Width	30mm
Height	90mm
Storage temperature	-35 - 70°C
Length	70mm
Degree of protection (IP)	IP67
Volume	Large
Active area material of sensor	glass
Housing material	Zinc die-cast
Ambient temperature	-40 - 50°C

Optical features

Laser class	Class 2
Light source	Laser diode, red light
Light beam form	Point
Wavelength of the sensor	658nm
focus	5000mm
Light spot diameter at focal point	3mm

Other features

Operational mode	Background suppression
Reference medium / object	Material with 90% reflectivity
Ambient temperature	-40 - 50°C

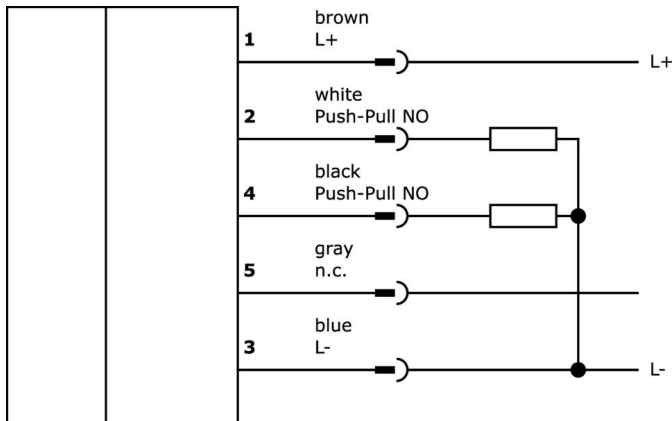
Classification

ETIM 8	EC002719 Photoelectric proximity switch with background suppression
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More

IPF Product Group	160 laser sensor
packaging dimensions	160 x 99 x 60 mm
gross weight	470 g
Customs tariff number	85365019
WEEE number	40951076
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.

Dimensional drawing

