

OYQ40203

Optical sensors • Through-beam sensors

sensor optical, Light barrier, 4,5x10x14mm, Sn: 0.5m, 12-24V DC, PNP NC (NC), Cable 2m PVC, IP67, Plastic PET+Polyalylate, Polarity free red light

including 4x Screw, 4x Nut, 4x Washer



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	0.5ms
Display	LED display
Type of switching function	Normally closed contact (NC)
Type of electrical connection	Cable
Type of switching output	PNP
Rated switching current	50mA
Short-circuit protection	Yes
No-load current, receiver	15mA
No-load current, transmitter	10mA
Line diameter	2.5mm
Residual ripple	10%
Switching distance	0 - 500mm
Switching frequency	1000Hz
Voltage drop	2V
Scanning function	Light switching
Reverse polarity protection	Yes
Decay time	0.5ms
Absolute repeat accuracy	0.05mm
Operating voltage (DC)	12 - 24V

Mechanical features

Number of cores	3
Conductor cross-section	0.1mm ²
Design	Cuboid
Width	14.5mm
Height	4.5mm
Cable length	2m
Storage temperature	-30 - 70°C
Length	10mm
Shock resistance	50g
Degree of protection (IP)	IP67
Vibration resistance	500Hz
Volume	Small
Active area material of sensor	Plastic (PAR)
Housing material	Plastic PET
Material of cable sheath	Plastic (PVC)
Working distance range	0 - 500mm
Ambient temperature	-25 - 55°C

Optical features

Light source	Polarity free red light
Light beam form	Point
Wavelength of the sensor	680nm

Other features

Scope of delivery	Transmitter and receiver
Ambient temperature	-25 - 55°C
Version	Light barrier

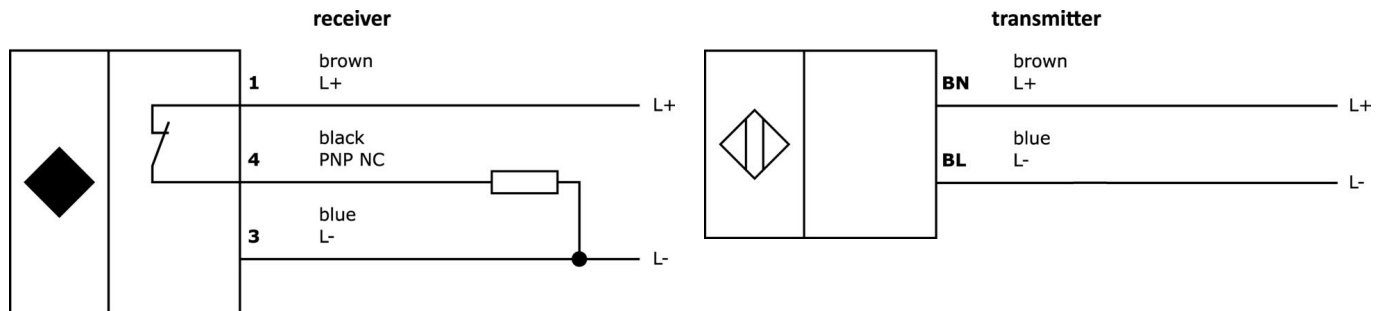
Classification

ETIM 8	EC002716 Through-beam photoelectric sensor
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More

IPF Product Group	100 optical sensors
packaging dimensions	123 x 77 x 25 mm
gross weight	60 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.