

OE120226

Optical sensors • Through-beam sensors receivers

sensor optical, Through-beam sensor receiver, M12x1 60long, Sn: 10m, 10-35V DC, PNP NC (NC), Connector M12, IP67, Brass Chrome-plated+Glass, Polarity free red light



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

Decay time	0.5 ms
Response/decay time	0.5 ms
Display	LED display
Type of switching function	Normally closed contact (NC)
Type of electrical connection	Connector M12
Type of switching output	PNP
Rated switching current	200 mA
Readiness delay	20 ms
Operating voltage (DC)	10 - 35 V
Short-circuit protection	Yes
No-load current	15 mA
No-load current, receiver	15 mA
Residual ripple	20 %
Switching distance	0 - 10000 mm
Switching frequency	1000 Hz
Voltage drop	2 V
Scanning function	Light switching
Reverse polarity protection	Yes

Mechanical features

Design	Cylinder, screw-thread
Housing coating	Chrome-plated
Thread length	41 mm
Thread size, metric	12
Thread pitch	1 mm
Length	60 mm
Maximum tightening torque	10 Nm
Degree of protection (IP)	IP67
Ambient temperature	-25 - 55 °C
Material of optical surface	Glass

Optical features

Light source	Polarity free red light
Light beam form	Point
Wavelength of the sensor	660 nm

Other features

Version	Sensors/Through-beam sensor receiver
Scope of delivery	Receiver

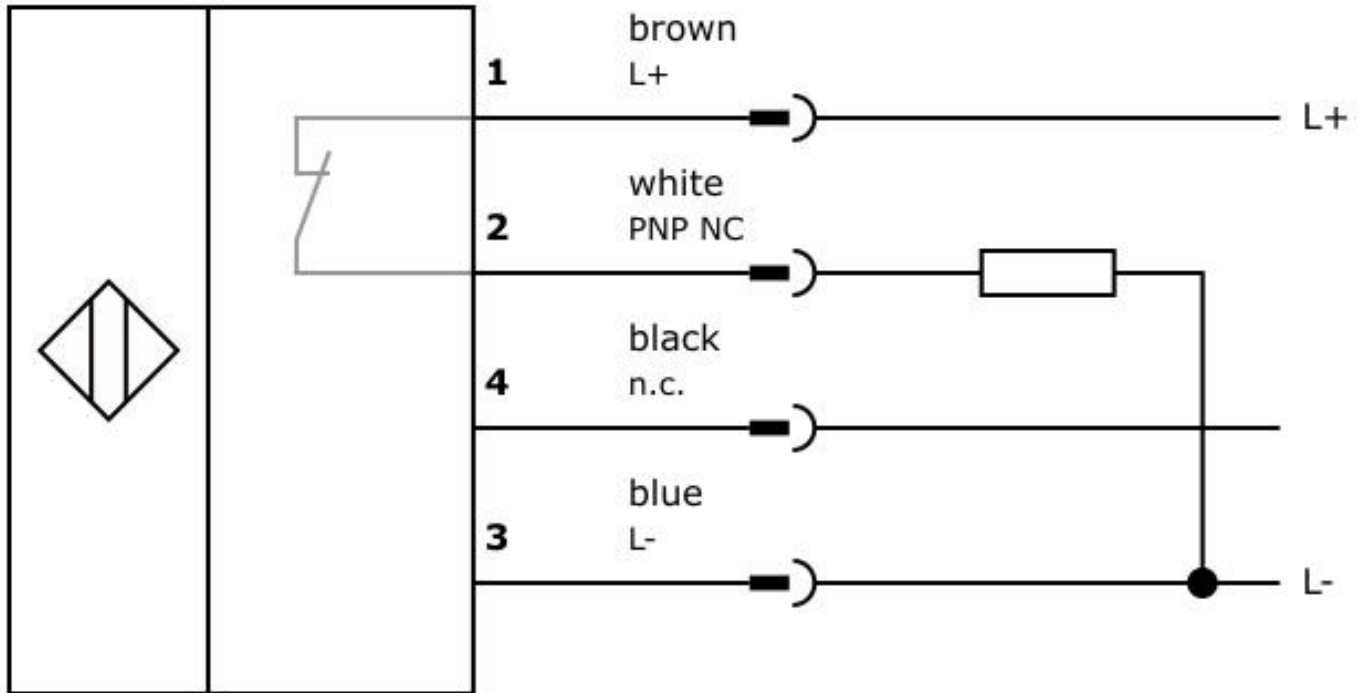
Classification

eClass 7.0	27270901
eClass 7.1	27270901
eClass 8.0	27270901
eClass 9.0	27270901
eClass 9.1	27270901
ETIM 8	EC002716 Einweg-Lichtschanke

More

IPF Product Group	100 optical sensors
packaging dimensions	210 x 185 x 14 mm
gross weight	37 g
Customs tariff number	85365019
WEEE number	40951076

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.