

OE18042A

Optical sensors • Through-beam sensors receivers

Optical sensor, through-beam sensor receiver, M18x1 64long, Sn: 20m, 10-35V
diagnostic coverage, PNP exclusive-OR, M12 connector, IP67, chrome-plated
brass+glass, red light unpolarized

including Nut



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	Exclusive-OR
Type of electrical connection	Connector M12
Type of switching output	PNP
Rated switching current	200mA
Readiness delay	20ms
Short-circuit protection	Yes
No-load current	10mA
No-load current, receiver	10mA
Number of pins	4
Residual ripple	20%
Switching distance	0 - 20000mm
Switching frequency	1000Hz
Voltage drop	2V
Scanning function	Light-/dark-on mode
Reverse polarity protection	Yes
Decay time	0.5ms
Operating voltage (DC)	10 - 35V

Mechanical features

Design	Cylinder, screw-thread
Thread length	42mm
Thread pitch	1mm
Length	63.5mm
Maximum tightening torque	20Nm
Surface	Chrome-plated
Degree of protection (IP)	IP67
Active area material of sensor	glass
Housing material	Brass
Thread dimension	M18
Ambient temperature	-25 - 55°C

Optical features

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

Other features

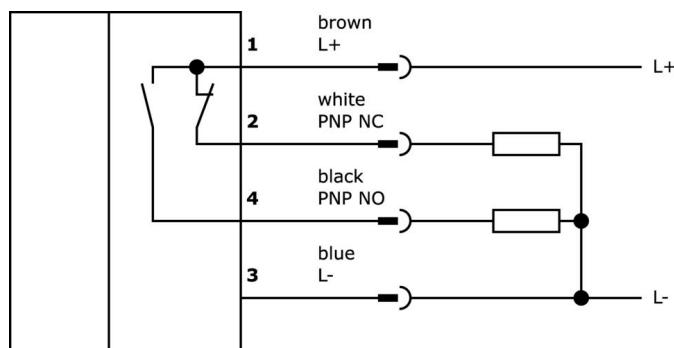
Scope of delivery	Receiver
Version	Through-beam sensor receiver

Classification

ETIM 8	EC002716 Through-beam photoelectric sensor
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More

IPF Product Group	100 optical sensors
packaging dimensions	215 x 180 x 22 mm
gross weight	66 g
Customs tariff number	85365019
WEEE number	40951076
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