OT430070

Optical sensors ● Distance measurement

sensor optical, diffuse-reflection sensor, 43x32x15mm, Sn:50-400mm, Triangulation, 12-26V DC, 4-20mA, IO-Link, Connector M8 4pin, IP67, Plastic ASA+Plastic, Polarity free red light, Point, Parameterization

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	3 ms
Scanning principle	Pushbuttons
Alarm output	Yes
Response time	3 ms
Display	LED-Anzeige
Resolution	1 mm
Type of alarm output	PNP/NPN
Type of analog output	4mA ... 20mA
Type of electrical connection	Connector M8
Rated switching current	100 mA
Operating voltage (DC)	12 - 26 V
Setting procedure	Parameterization
IO-Link compatible	Yes
Short-circuit protection	Yes
No-load current	80 mA
Measuring range	50 - 400 mm
Measuring method for optical distance measurement	Triangulation
Number of pins	4
Reverse polarity protection	Yes

Mechanical features

Design	Cuboid
Sensor width	14.8 mm
Sensor height	43 mm
Sensor length	32.5 mm
Maximum tightening torque	0.8 Nm
Degree of protection (IP)	IP67
Ambient temperature	0 - 50 °C
Volume	Small
Material of optical surface	Plastic
Housing material	Plastic ASA

Optical features

Light source	Polarity free red light
Light spot, laser focus	50.27 mm²
Light spot range	50 mm²
Light beam form	Point
Wavelength of the sensor	660 nm

Other features

IO-Link version	V1.0.1
Measuring range	50 - 400 mm
Relative linearity deviation	4 %

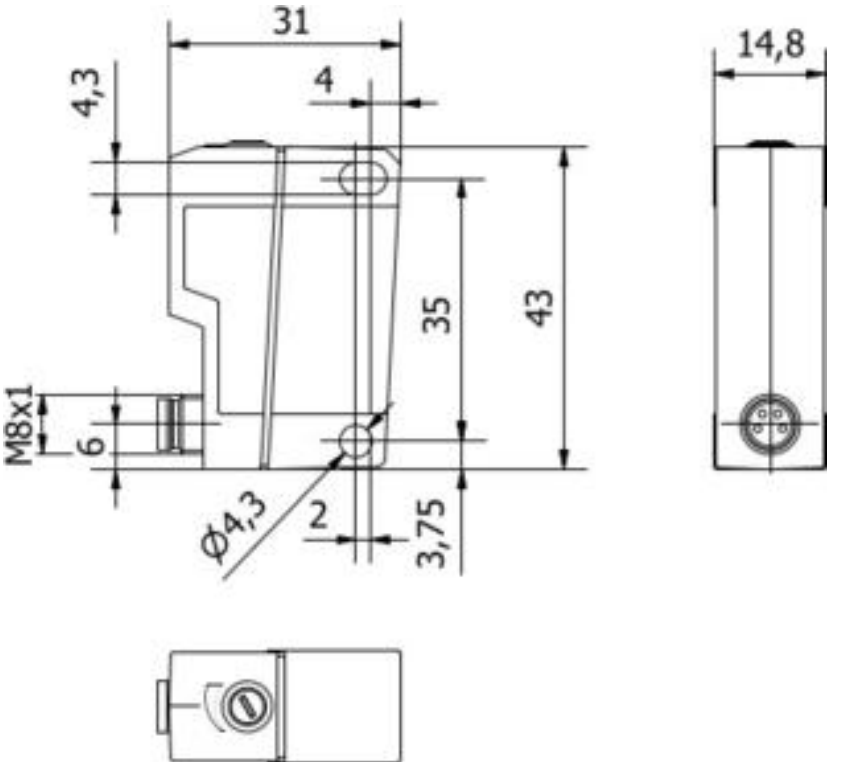
Classification

eClass 7.0	27270801
eClass 7.1	27270801
eClass 8.0	27270801
eClass 9.0	27270801
eClass 9.1	27270801
ETIM 8	EC001825 Optischer Abstandssensor

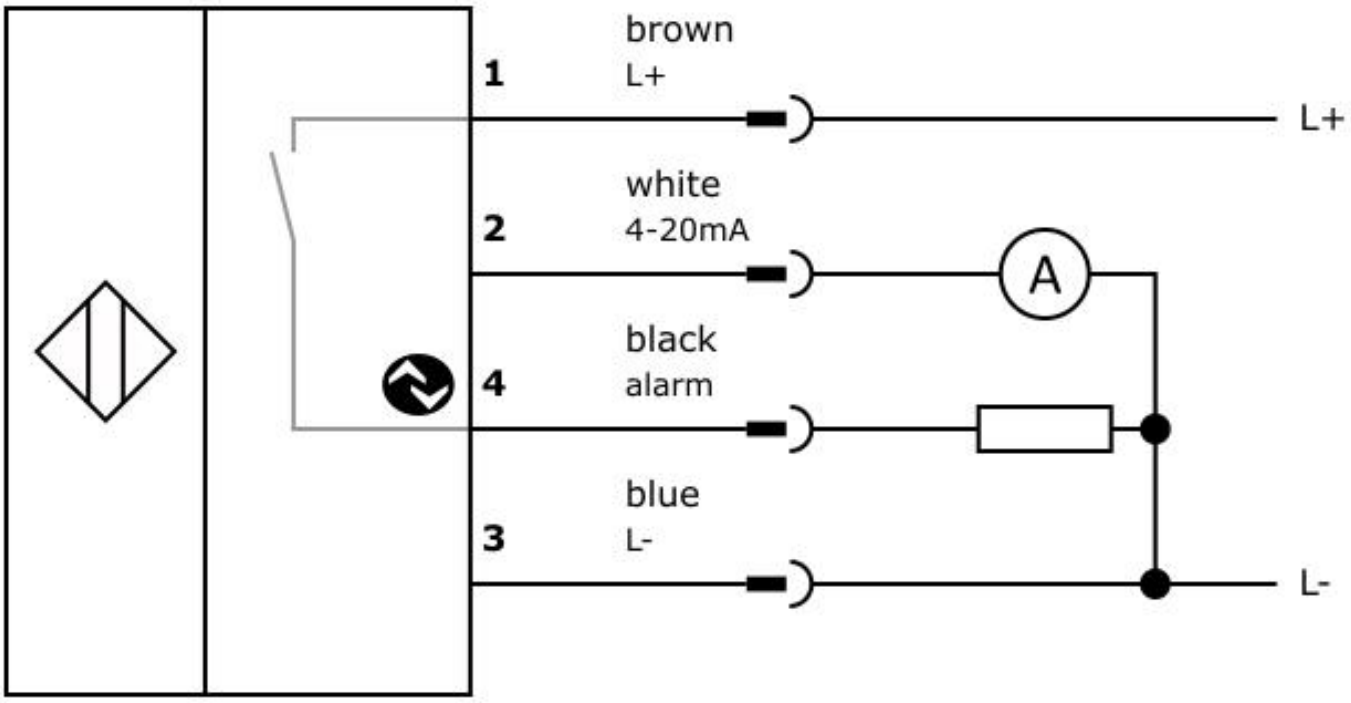
More

IPF Product Group	109 optical sensors (analog)
packaging dimensions	123 x 77 x 25 mm
gross weight	33 g
Customs tariff number	85365019
WEEE number	40951076
OzDS-compliant	Yes
POP-compliant	Yes

Dimensional drawing



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.

Any software, drivers or IODD files that may be required to operate your device can be downloaded free of charge from our homepage: www.ipf-electronic.com