

OE120124

Optical sensors • Through-beam sensors receivers

Sensor Optical, through-beam sensor Receiver, M12x1 66lang, Sn: 1m, 15-30V DC, PNP/NPN push-pull, M12 connector, IP67, brass nickel-plated, infrared light

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

Display	LED display
Type of switching function	Normally open (NO for PNP) Normally closed (NC for NPN)
Type of electrical connection	Connector M12
Type of switching output	Push-pull
Rated switching current	100 mA
Short-circuit protection	Yes
No-load current	30 mA
No-load current, receiver	30 mA
Number of pins	3
Switching distance	0 - 1000 mm
Switching frequency	500 Hz
Voltage drop	2 V
Scanning function	Dark switching
Reverse polarity protection	Yes
Operating voltage (DC)	15 - 30 V

Mechanical features

Design	Cylinder, screw-thread
Thread length	40 mm
Thread pitch	1 mm
Length	66 mm
Surface	nickel-plated
Shock resistance	30 g
Degree of protection (IP)	IP67
Vibration resistance	55 Hz
Housing material	Brass
Thread dimension	M12
Ambient temperature	-25 - 60 °C

Optical features

Light source	Infrared light
Light beam form	Point
Wavelength of the sensor	880 nm
Angle of beam spread	12 °

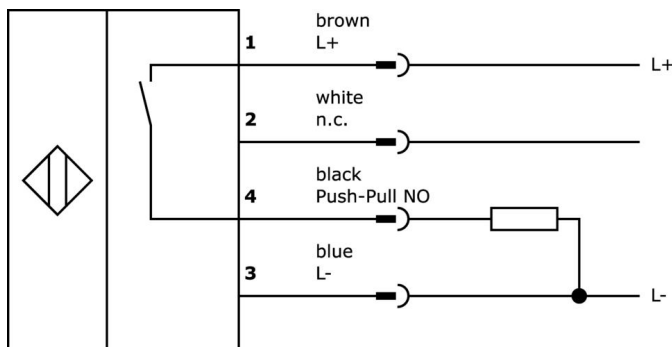
Classification

ETIM 8	EC002716 Through-beam photoelectric sensor
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More

IPF Product Group	101 high performance through-beam sensors and amplifiers
packaging dimensions	123 x 77 x 25 mm
gross weight	40 g
Customs tariff number	85365019
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

Connection



Extract accessories program

VK003020



Cable socket, angular, self-assembly, screw connection, Ø3-6.5mm, 4A, 240V, -25-90°C, M12 socket 4-pin, IP67, PBT

VK003024



Cable socket, Straight, Suitable for self-assembly, Screw connection, Ø3-6.5mm, 4A, 240V, -25-90°C, M12 Female (socket) 4pin, IP67, PBT

VK003021



Cable socket, Angular, Suitable for self-assembly, Screw connection, Ø3-6.5mm, 4A, 60V, -25-90°C, M12 Female (socket) 5pin, IP67, PBT

VK003025



Cable socket, Straight, Suitable for self-assembly, Screw connection, Ø3-6.5mm, 4A, 60V, -25-90°C, M12 Female (socket) 5pin, IP67, PBT

AY000115



accessories sensor, Fixture kit, Metal, ball joint

AY000162



Accessories, magnetic, Ø43mm, neodymium-iron-boron, inside thread M5, rubber

VK200021



Connection cable, 2m, M12 Female (socket) 3pin Angular, Free conductor end, 3x0.34mm², PUR (Polyurethane), Ø4.3mm, 250V, -30-90°C, IP67, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-free

VK200025



Connection cable, 2m, M12 Female (socket) 3pin Straight, Free conductor end, 3x0.34mm², PUR (Polyurethane), Ø4.3mm, 250V, -30-90°C, IP67, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-free

AY000159



accessories sensor, Mounting pipe, Ø12mm 200long, Aluminum Anodised

You can find further accessories on our homepage



Installation

Mounting / installation may only be carried out by a qualified electrician!



Disposal

WEEE number according to § 6 para. 3 ElektroG: 40951076

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.