

OS120022

Optical sensors • Through-beam sensors transmitters

Sensor Optical, through-beam sensor Transmitter, M12x1 72long, Sn: 15m, 10-30V DC, M12 connector 4-pin, 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

Type of electrical connection	Connector M12
No-load current	32 mA
No-load current, transmitter	32 mA
Number of pins	4
Switching distance	0 - 15000 mm
Operating voltage (DC)	10 - 30 V

Mechanical features

Design	Cylinder, screw-thread
Thread length	40 mm
Thread pitch	1 mm
Length	72 mm
Surface	nickel-plated
Shock resistance	30 g
Degree of protection (IP)	IP67
Housing material	Brass
Thread dimension	M12
Ambient temperature	-20 - 50 °C

Optical features

Light source	Infrared light
Light beam form	Point
Wavelength of the sensor	880 nm
Angle of beam spread	16 °

Other features

Features	with test input
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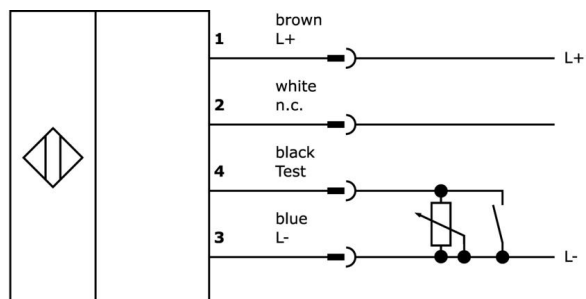
Classification

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	43 g
Customs tariff number	85365019
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

Connection



Test input: Transmitter off = 0V Transmitting power adjustable via 10KΩ potentiometer

Extract accessories program

VK000037



Adaption, M12 Female (socket)
3pin Straight, M8 Male
(connector) 3pin Straight, 24V, -
25-85°C, IP67, Oil and cooling
lubricants, Welding area

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

VK030F62



Connection cable, 0.3m, M12
socket 3-pin angular, M8
connector 3-pin straight, 3x0.
34mm², PUR (polyurethane), IP67,
LED, suitable for trailing chain and
torsion resistant, oils and cooling
lubricants, welding area, silicone-
free

VK060F62



Connection cable, 0.6m, M12
socket 3-pin angular, M8
connector 3-pin straight, 3x0.
34mm², PUR (polyurethane), IP67,
LED, suitable for trailing chain and
torsion resistant, oils and cooling
lubricants, welding area, silicone-
free

VK030F23



Connection cable, 0.3m, M12
socket 4-pin angular, M12
connector 4-pin straight, 4x0.
34mm², PUR (polyurethane), IP67,
LED, suitable for trailing chain and
torsion resistant, oils and cooling
lubricants, welding area, silicone-
free

VK030F26



Connection cable, 0.3m, M12
socket 4-pin straight, M12
connector 4-pin straight, 4x0.
34mm², PUR (polyurethane), IP67,
LED, suitable for trailing chain and
torsion resistant, oils and cooling
lubricants, welding area, silicone-
free

VK030F60



Connection cable, 0.3m, M12
socket 3-pin angular, M8
connector 3-pin straight, 3x0.
34mm², PUR (polyurethane), 60V,
IP67, suitable for trailing chain and
torsion resistant, oils and cooling
lubricants, welding area, silicone-
free

VK030F64



Connection cable, 0.3m, M12
socket 3-pin straight, M8
connector 3-pin straight, 3x0.
34mm², PUR (polyurethane), 60V,
IP67, suitable for trailing chain and
torsion resistant, oils and cooling
lubricants, welding area, silicone-
free

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.