

OE160470

Optical sensors • Through-beam sensors receivers

Optical sensor, through-beam sensor receiver, 35x35x12mm, Sn: 6m, 10-30V DC, PNP exclusive-OR, M8 connector, IP67, zinc diecast+PMMA, red light unpolarized



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	1 ms
Display	LED display
Type of switching function	Exclusive-OR
Type of electrical connection	Connector M8
Type of switching output	PNP
Rated switching current	100 mA
Short-circuit protection	Yes
No-load current	17 mA
No-load current, receiver	17 mA
Switching distance	0 - 6000 mm
Switching frequency	500 Hz
Voltage drop	1.8 V
Scanning function	Light-/dark-on mode
Reverse polarity protection	Yes
Decay time	1 ms
Operating voltage (DC)	10 - 30 V

Mechanical features

Design	Cuboid
Width	12.4 mm
Height	35 mm
Length	35 mm
Degree of protection (IP)	IP67
Active area material of sensor	Plastic (PMMA)
Housing material	Zinc die-cast
Ambient temperature	-25 - 65 °C

Optical features

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

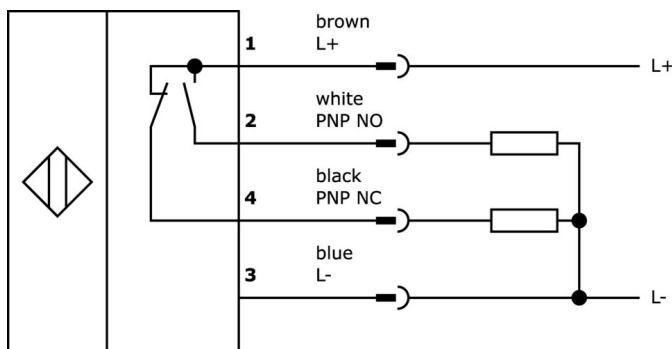
Classification

ETIM 8	EC002716 Through-beam photoelectric sensor
--------	--

More


IPF Product Group	100 optical sensors
packaging dimensions	123 x 77 x 25 mm
gross weight	62 g
Customs tariff number	85365019
WEEE number	40951076
OzDS-compliant	Yes
POP-compliant	Yes
Reach-compliant	Yes
RoHS-compliant	Yes

Connection




Extract accessories program

VK200371



Connection cable, 2m, M8 Female (socket) 4pin Angular, Free conductor end, 4x0.34mm², PUR (Polyurethane), Ø4.7mm, 30V, -30-90°C, IP67, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-free

VK200375



Connection cable, 2m, M8 Female (socket) 4pin Straight, Free conductor end, 4x0.34mm², PUR (Polyurethane), Ø4.7mm, 30V, -30-90°C, IP67, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-free

AO000067



accessories optical, Mounting angle bracket, 34x20x26mm, Angle, Steel, 90°

AY000118




accessories sensor, Fixture kit, Metal, ball joint

VK003071




Cable socket, Angular, Suitable for self-assembly, Soldering connection, Ø3.5-5mm, 4A, 30V, -40-85°C, M8 Female (socket) 4pin, IP67, Brass

VK003075




Cable socket, Straight, Suitable for self-assembly, Soldering connection, Ø3.5-5mm, 4A, 30V, -40-85°C, M8 Female (socket) 4pin, IP67, Brass

VK030F71



Connection cable, 0.3m, M8 socket 4-pin angular, M8 connector 4-pin straight, 4-core, PUR (polyurethane), suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

VK030F75



Connection cable, 0.3m, M8 socket 4-pin straight, M8 connector 4-pin straight, 4-core, PUR (polyurethane), suitable for trailing chain and torsion-resistant, oils and cooling lubricants, welding area, silicone-free

AY000162



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

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.