

OE130171

Optical sensors • Through-beam sensors receivers

Sensor Optical, through-beam sensor receiver, 69x12x12mm, Sn: 1m, 10-35V DC, PNP NO, M8 connector, IP65, brass nickel-plated (n-pltd) + plastic, infrared light



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 | 5 ms |
| Display | LED display |
| Type of switching function | Normally open contact (NO) |
| Type of electrical connection | Connector M8 |
| Type of switching output | PNP |
| Rated switching current | 200 mA |
| Readiness delay | 15 ms |
| Setting procedure | Potentiometer |
| Short-circuit protection | Yes |
| No-load current | 30 mA |
| No-load current, receiver | 30 mA |
| Switching distance | 0 - 1000 mm |
| Switching frequency | 500 Hz |
| Voltage drop | 2 V |
| Scanning function | Dark switching |
| Reverse polarity protection | Yes |
| Decay time | 5 ms |
| Operating voltage (DC) | 10 - 35 V |
| Output functions | Switching point |

Mechanical features

| | |
|--------------------------------|---------------|
| Design | Cuboid |
| Width | 12 mm |
| Height | 69 mm |
| Length | 12 mm |
| Surface | nickel-plated |
| Degree of protection (IP) | IP65 |
| Active area material of sensor | Plastic |
| Housing material | Brass |
| Ambient temperature | -5 - 70 °C |

Optical features

| | |
|--------------------------|----------------|
| Light source | Infrared light |
| Light beam form | Point |
| Wavelength of the sensor | 880 nm |

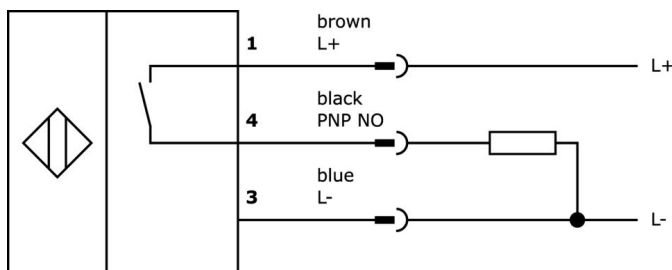
Classification

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

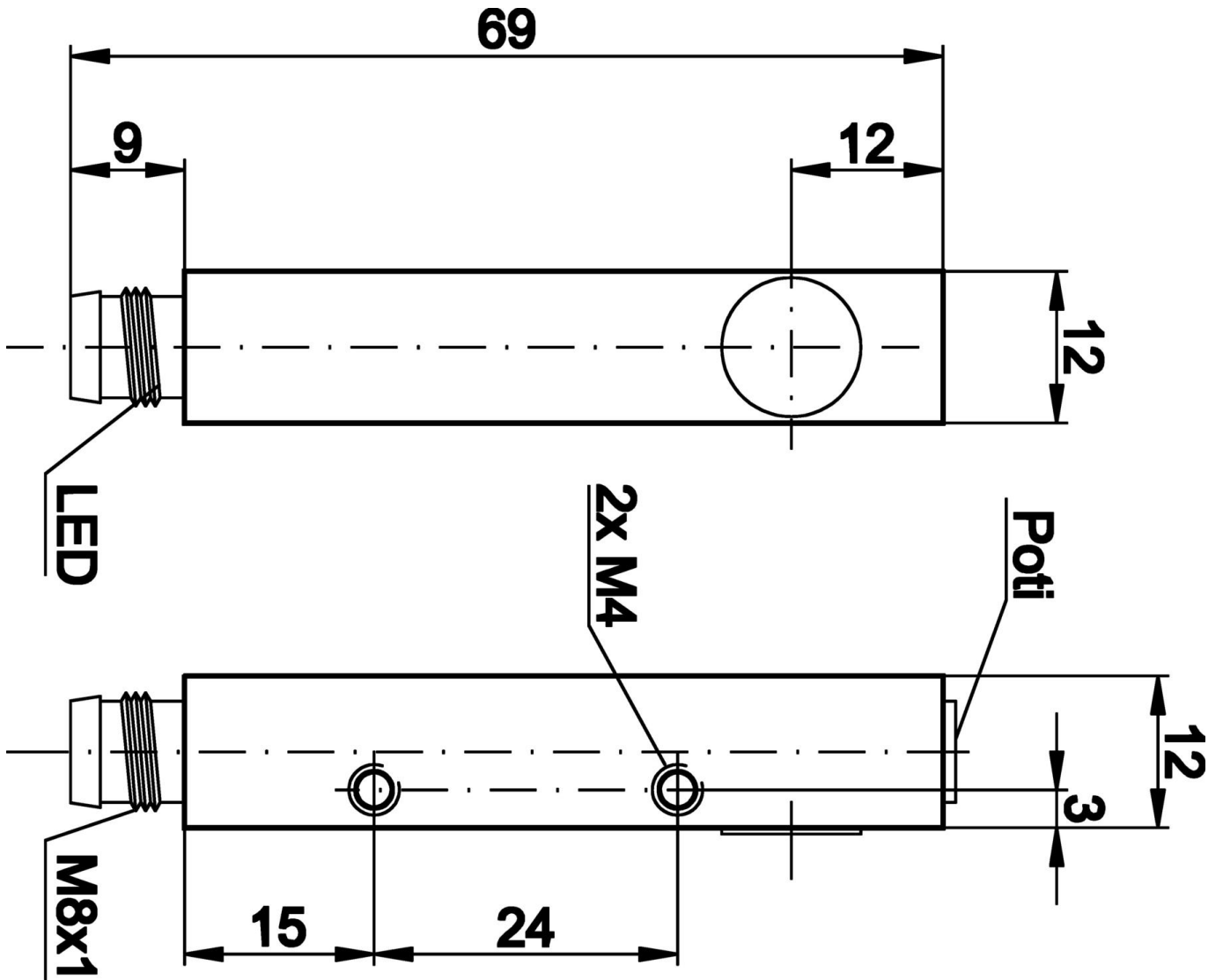
More

| | |
|-----------------------|---------------------|
| IPF Product Group | 100 optical sensors |
| packaging dimensions | 123 x 77 x 25 mm |
| gross weight | 40 g |
| Customs tariff number | 85365019 |
| WEEE number | 40951076 |
| POP-compliant | Yes |
| Reach-compliant | Yes |
| RoHS-compliant | Yes |

Connection



Dimensional drawing



Extract accessories program

VK003070



Cable socket, Angular, Suitable for self-assembly, Soldering connection, Ø3.5-5mm, 4A, 60V, -40-85°C, M8 Female (socket) 3pin, IP67, Brass

VK003074



Cable socket, Straight, Suitable for self-assembly, Soldering connection, Ø3.5-5mm, 4A, 60V, -40-85°C, M8 Female (socket) 3pin, IP67, Brass

VK030F72



Connection cable, 0.3m, M8 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

VK060F72



Connection cable, 0.6m, M8 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

VK030F82



Connection cable, 0.3m, M8 socket 3-pin angular, M12 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

VK060F82



Connection cable, 0.6m, M8 socket 3-pin angular, M12 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

VK030F80



Connection cable, 0.3m, M8 socket 3-pin angular, M12 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

VK030F84



Connection cable, 0.3m, M8 socket 3-pin straight, M12 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

AY000058



accessories sensor, Mounting angle bracket, M4x0.7 12long, Mounting material for sensor brackets, Aluminum

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.