

## OS120022

### Optical sensors • Through-beam sensors transmitters

Sensor Optical, through-beam sensor Transmitter, M12x1 72long, Sn: 15m, 10-30V  
diagnostic coverage, M12 connector 4-pin, IP67, nickel-plated (n-pltd) brass, 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	32mA
No-load current, transmitter	32mA
Number of pins	4
Switching distance	0 - 15000mm
Operating voltage (DC)	10 - 30V

#### Mechanical features

Design	Cylinder, screw-thread
Thread length	40mm
Thread pitch	1mm
Length	72mm
Surface	nickel-plated
Shock resistance	30g
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	880nm
Angle of beam spread	16°

**Other features**

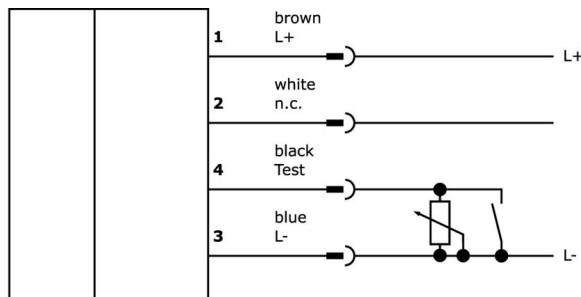
Features	with test input
Scope of delivery	Transmitter
Version	Through-beam sensor transmitter

**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

**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](http://www.ipf-electronic.com).