

**OE136003**

**HIGH-PERFORMANCE THROUGH-BEAM SENSORS • THROUGH-BEAM SENSORS RECEIVERS**

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.



**MECHANICAL DATA**

Ambient temperature (MAX)	60 °C
Ambient temperature (MIN)	-25 °C
Cable length	15 m
Degree of protection (IP)	IP67
Housing design	Cuboid
Housing material	Aluminium
Material of cable sheath	PVC
Material of optical surface	Plastic
Number of wires	2
Sensor height	60 mm
Sensor length	12 mm
Sensor width	12 mm
Shock resistance	30 g
Storage temperature	80 °C
Storage temperature	-40 °C
Vibration resistance	55 Hz
Wire cross section	0.5 mm <sup>2</sup>

**ELECTRICAL DATA**

Connection to amplifier	Yes
Max. switching distance	70 m
Rated switching distance	0 mm
Switching frequency	15 Hz
Type of electrical connection	Cable
Type of input voltage	DC
Voltage type	DC
With time function	No

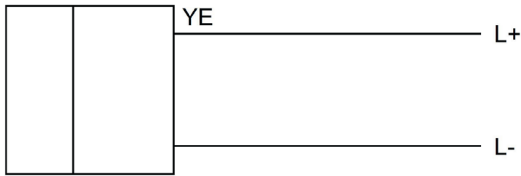
## OPTICAL DATA

Angle of beam spread	25 °
Light beam form	Point
Light source	Infrared light
Wavelength of the sensor	880 nm

## OTHER DATA

Heavy-duty devices	Yes
Scope of delivery of the one-way system	Receiver

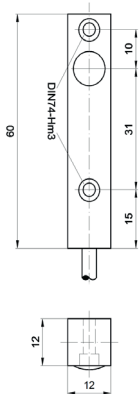
## CONNECTION



**Colors:** YE (yellow), shield

**Functions:** YE = L+, shield = L-

## DIMENSIONAL DRAWING



## 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.