

OS / OE15 - series

Through-beam sensors

Installation and environment

Coatings on the optics impair the function and reduce the range. The installation should therefore be carried out in such a way that as little dust as possible is deposited and no liquid can get onto them during operation. It must also be ensured that they are accessible for cleaning.

From time to time, the optics should be cleaned with a soft cloth moistened with alcohol or soapy water.

Cable

The PVC connection cable of the pre-wired cable devices is not suitable for environments containing oil or solvents and in applications where the cable is frequently moved.

In such cases, the use of plug devices with a PUR cable socket is recommended.

Installation and alignment

1. First mount the receiver (OE) in the desired position.
2. Then temporarily mount the transmitter (OS) in its position.
3. Now align the optical axis of the transmitter on that of the receiver.
4. Finally mount the transmitter.
5. If the light beam is interrupted, the switching output of the receiver must now switch safely.

Setting

The built-in potentiometer on the receiver can be used to change the sensitivity and thus the range (distance between transmitter and receiver). On delivery, the device is set to the maximum value. Turning it counter-clockwise reduces the range. The full setting range of the potentiometer is 12 revolutions.

When the light beam is interrupted, the switching output switches (dark switching) and the yellow switching state LED lights up.

Safe operation is ensured when the green function LED lights up when the light path is free and goes out when the switching output is switched on (yellow LED lights up).

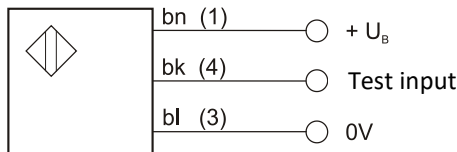
If the green LED does not light up when the light path is clear, either the sensitivity is set too low, the distance between the devices is too great, or the optics are dirty.

When the green LED lights up, the alarm output is switched on simultaneously for the **OE150700** and **OE150770** variants.

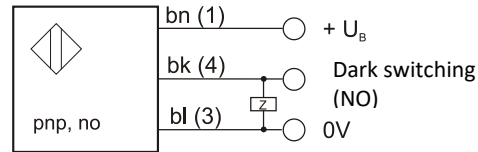
The transmitter has a test input. If the black line is connected to the blue line (0V/GND), the transmitter diode is switched off. At the same time the switching output of the receiver must switch and the yellow LED light up. If this is not the case, either the receiver is defective or it is influenced by very strong extraneous light.

Electrical connection

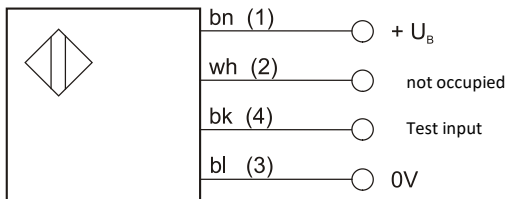
OS150005 / OS150075



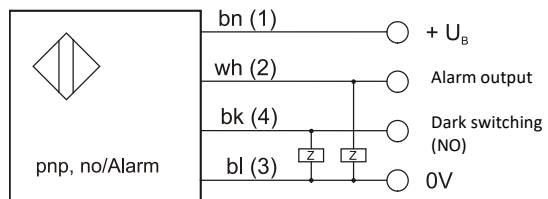
OE150105 / OE150175



OS150000 / OS150070



OE150700 / OE150770



bn = brown - brown - brun
 wh = white - white - blanc
 bk = black - black - noire
 bl = blue - blue - bleu

Terminal marking of the junction box in brackets

Important note: Do not use cable boxes with LED to connect the transmitters.

Technical data

Article no. Transmitter	Article no. Receiver	Voltage	Output (receiver)	Send-Element	Nominal Range	Connection
OS150005	OE150105	10 ... 35V DC	pnp, no (200mA)	IR LED	6m	2m PVC cable
OS150075	OE150175	10 ... 35V DC	pnp, no (200mA)	IR LED	6m	M8 plug 3pin
OS150000	OE150700	10 ... 35V DC	pnp, no/alarm (200mA)	IR LED	12m	3m PVC cable
OS150070	OE150770	10 ... 35V DC	pnp, no/alarm (200mA)	IR LED	12m	M8-connector 4pin

Safety Notice:

In case of direct impact on personal safety, the application of these products is prohibited.