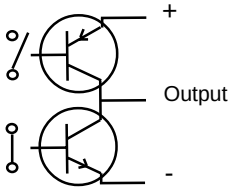
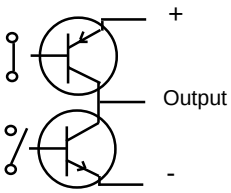
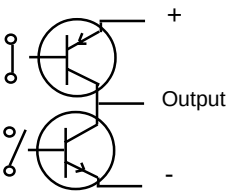
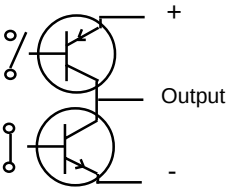
Laser-Light Barrier IRL-L50

- visible Laserbeam
- Pollution-Signal-Output

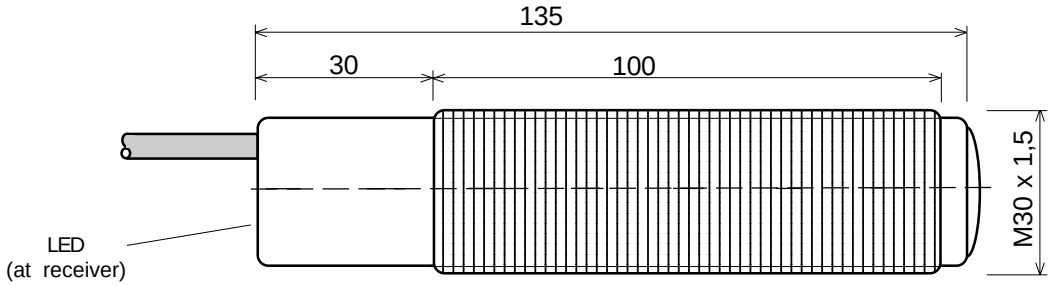
ISO 9001

Attention! A Laser of Class 3B is potential dangerous!

Typ / Technical Data	IRL-L50-SE ILD-L50-S-024-14 = Emitter ILD-L50-E-024-14 = Receiver	
Laser class	3B	
Laser-Output	< 5mW	
Light beam diameter	minimal 3mm / ap. 8mm auf 10m	
Wave length of Laserlight	670 nm / rot	
Operation distance	50m	
Supply Voltage	20-28 VDC Ripple max 10% Vpp	
Current Consumption	90mA (Emitter 60mA, Receiver 30mA)	
max. Output Current	100 mA for each Output	
Operating frequency	125 Hz	
Output Protection	Permanent short circuit	
Operating Temperature	-20°C to +50°C	
Housing	M30 Ms / Ni plated brass	
Protection Level	IP 65 according EN 60529	
Cable Connection	2/4+PE x 0.75mm² + Shield / L=10m	
Accessories	2 clamps M30 (or 4 nuts M30)	
LED - Display	LED red: Light beam interrupted or not aligned LED yellow: Bad aligned or polluted LED green: Light beam not interrupted / optimal aligned LED red flashing: Output short-circuited	
Function and connection - Layout	 Lightbeam interrupted LED displays red	 Lightbeam not interrupted LED displays yellow or green
Normal Connection: Receiver Emitter 1 = + 1 = + 2 = - 2 = - 3 = Output 4 = VA (Pollution-Indication-Output)		
Reverse polarity: Receiver Emitter 1 = - 1 = + 2 = + 2 = - 3 = Output 4 = VA (Pollution-indication-Output)		

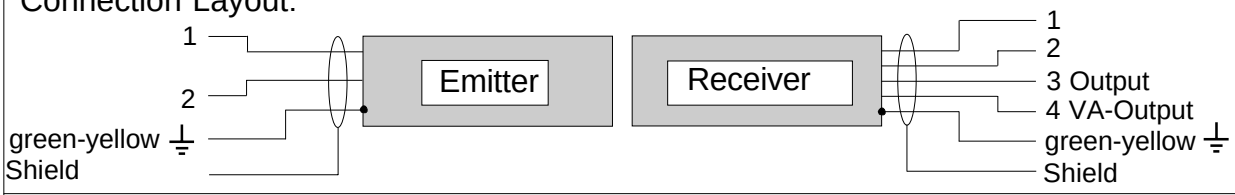
Pole reversal connection of Supply Voltage for the receiver is followed by an invert function of the output.
Output and Pollution-Indication-Output (VA) have the same output connection.

Dimensions:



Emitter and Receiver have the same dimensions.

Connection Layout:



Operating Manual:

Safety Notes for Laser installations of class 3B

- The instructions for planning and installation must be followed in accordance with EN 60825-1

Mounting prescriptions

The sensors must only be used with voltage shown on the sensor identification label. The connection cable must not be installed parallel to high voltage cables. We recommend that the Sensors are installed insulated from the protective earth.
(The connection to ground is secured by the PE-wire). In hazardous areas the cable must be protected.

Alignment of the Lightbarrier

The three colour indication in the receiver optic allows an optimal alignment.
1. The emitter must be aligned this way, that the lens of transmitter is fully illuminated (By watching from the receiver at the emitter).
2. The receiver should be moved, until the LED (from the receiver) displays "green".

Function

The receiver has one Push-Pull-output and one Polluti-on-Indication-Output. The load (Relay or other loads) can be connected at + or - . Pole reversal connection of the supply voltage for the receiver (2 = + / 1 = -) is followed by an invert function of the output signal.The pollution-indication-output is activated when the light barrier is bad aligned or becomes dirty. (Receiver LED indicates "yellow"). If an output (Signal- or Pollution-Indication-Output) is s hort-circuited, this is indicated by receivers LED red flashing. The output switches off.

Maintenance

The sensors do not require any special maintenance. If the sensors become dirty, they should be cleaned with a non-aggressive medium. Equipment must only be repaired or serviced by the manufacturer.

Safety instructions

Should the sensor cable be broken or the sensor in any way become defect, the output may show any mode.
When installing and operating with the sensors, it is necessary to take into consideration the relevant EU and national regulations.
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Standards met

- EN 50081-1/-2, EN 50082-1/-2,
- Machine Directives 89/392/EWG, 91/368/EWG, 93/44/EWG, 93/68/EWG
- Low Voltage Directives 73/23/EWG, 93/68/EWG
- EMC 89/336/EWG, 91/263/EWG, 92/31/EWG, 93/68/EWG

General Notes

Our equipment is produced to the highest technical standard. We reserve the right to modify the equipment in order to incorporate new technical developments or improvements. Our light barriers are assembled non-polluting as possible. We don't take back unserviceable or irreparable units. For disposing observe the current local waste disposal laws and regulations.

OKT. 01,99/TB

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