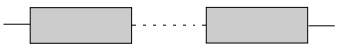
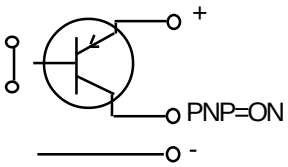
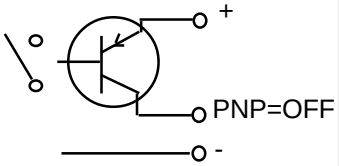
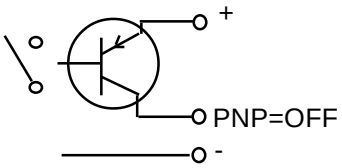
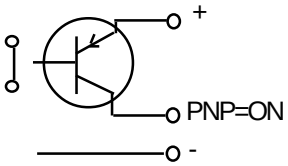
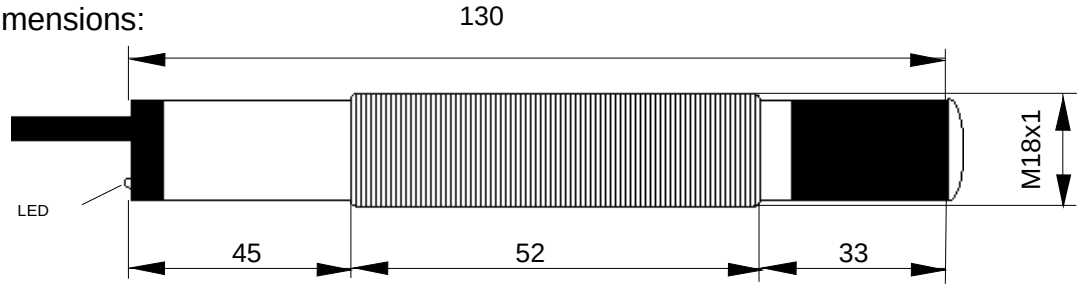
ISO 9001:2008

Light Barrier type IRL-45/46PNP-S/E S67

- For detection of small objects (D >= 6mm)
- Housing M18

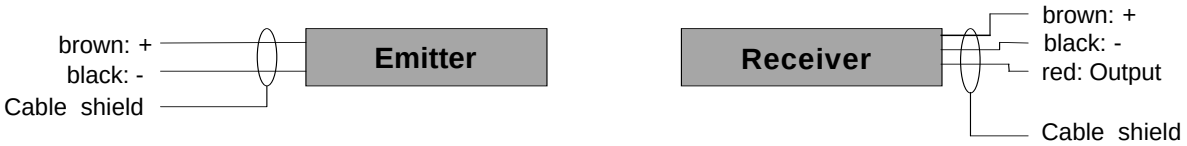
Technical data \ Type	IRL-45PNP-S/E- S67	IRL-46PNP-S/E-S67
Designations	S: Emitter / E: Receiver	
Range	15m	20m
Min. detectable object size	6mm (Avoid mirroring effects)	
Light source	Infrared 870nm	
Response time	10ms	
Supply voltage	24VDC +-15%	
Current consumption, emitter	15 mA	
Current consumption, receiver	10mA	
Max. power dissipation	Emitter: 0.42W / Receiver: 0.28W	
Output	PNP, 100mA, short circuit protected	
Housing	M18, brass, nickel plated	
Enclosure rating	IP 65, according to EN 60529	
Maximum ambient temperature	-20°C < T_{amb} < +60°C	
Connection cable, emitter	2 x AWG24 (0.2mm2), shielded, Special-PVC, Length: 2m	
Connection cable, receiver	3 x AWG24 (0.2mm2), shielded, Special-PVC, Length: 2m	
Accessories	4 nuts M18 (or 2 clamps optional)	
LED-Indication Output function	 Light beam free LED ON	 Light beam interrupted LED OFF
Output function and wiring at standard connection: Function: Emitter: Receiver: +24VDC brown brown 0V (Minus) black black Output -- red PE -- -- Cable shield white white (Connect the shield to PE)		
Output function and wiring at reversed polarity of the supply voltage: Function: Emitter: Receiver: +24VDC brown black 0V (Minus) black brown Output -- red PE -- -- Cable shield white white (Connect the shield to PE)		

Dimensions:



Same dimensions for emitter and receiver

Wiring:



Operating manual / EC-Declaration of conformity:

General mounting prescriptions

Because the optical beam angle of the light barrier is small, mount the light barrier stable and free from vibrations and shocks. Do not exceed the maximum ratings. The electrical connections must be exactly as shown in the connection diagram. The cable shield must be connected short. The cable shield should be connected to the protection earth, large-surfaced. Connection cables must not be installed parallel to high voltage cables. The cable have to be protected against damages.

Function at standard connection of the supply voltage

If the light beam between emitter and receiver is free, the LED lights red and the output is switched to +24VDC. If the light beam is interrupted the LED goes off and the output is switched off. The load must be connected between the output and 0V.

Function at reversed connection of the supply voltage

If the light beam between emitter and receiver is free, the LED lights red and the output is switched off. If the light beam is interrupted the LED goes off and the output is switched to +24VDC. The load must be connected between the output and 0V.

Maintenance:

No special maintenance is required. If the lenses becomes dirty, they should be cleaned with a non-aggressive solvents. Equipment must only be repaired by the manufacturer.

Safety instructions

The light barrier type IRL-4*PNP-S/E- S67 must not be used for fail-safe functions and must not be used in explosion hazardous locations. In worst case the output can change to any state! When installing and operating with the sensor, it is necessary to take into consideration the relevant international and national regulations. The light barriers are conform to the following directives and standards:

EN 60529:2014, EN 61000-6-1/-2, EN 61000-6-3/4, EN 60947-5-1, EN 60947-5-2

- Machine directive: 2006/42/EC
- EMC directive: 2004/108/EC
- RoHS directive: 2011/65/EU.

General Notes, disposal

We reserve the right to modify our equipment. Our equipment is designed such way, that it has the least possible adverse effect on the environment. It neither emit or contain any damaging or siliconized substances and use a minimum of energy and resources. No longer usable or irreparable units must be disposed of in accordance with local waste disposal regulations.

EC-Declaration of conformity:

The conformity of the devices with the EC standards and directives and the EC-type examination certificate and the observation of the Quality Safety System ISO 9001:2008, declares:

Hans Bracher, Matrix Elektronik AG

Tippkemper - Matrix GmbH
Meegener Str. 43 D-51491 Overath
Tel.:+49 2206 9566-0 Fax -19
info@tippkemper-matrix.com

Matrix Elektronik AG (Manufacturer)
Kirchweg 24 CH-5420 Ehrendingen
Tel.:+41 56 20400-20 Fax -29
info@matrix-elektronik.com