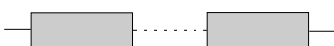

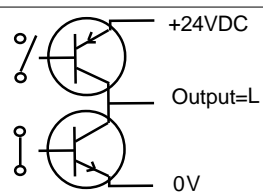
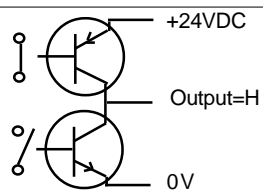
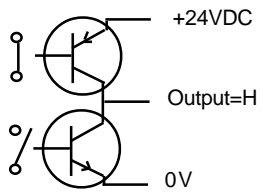
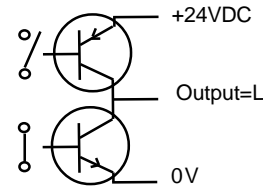


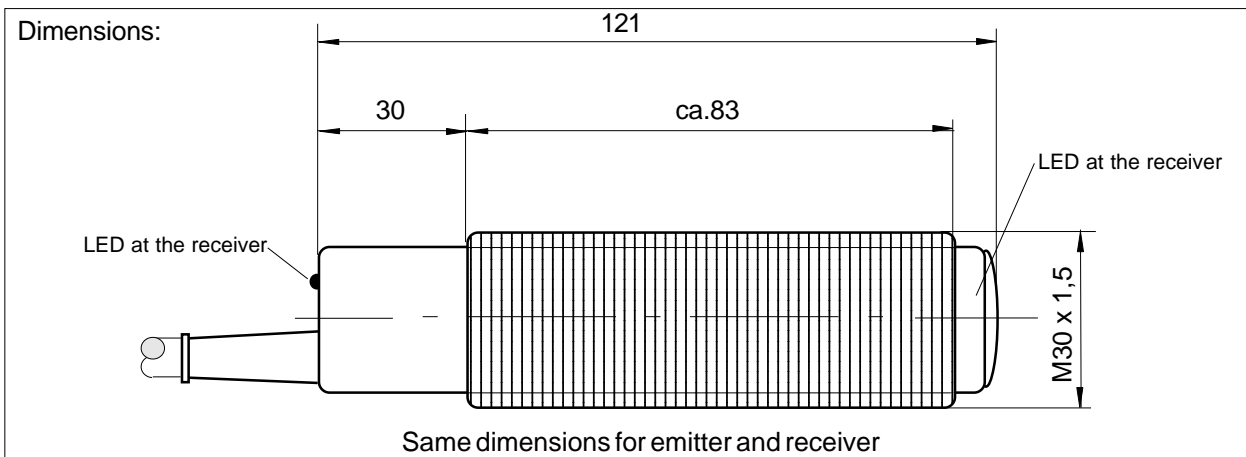
## Light Barriers IRL-25N/P-S/E-E-X and IRL-50N/P-S/E-E-X



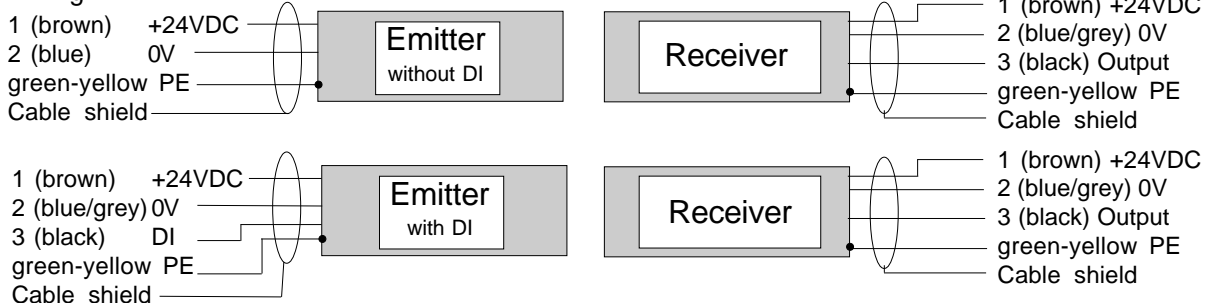
- With push-pull output, N- or P-function
- Status indication by illuminated receiver lens

Type	IRL-25P-S/E-E-X IRL-25N-S/E-E-X	IRL-50P-S/E-E-X IRL-50N-S/E-E-X
<b>Technical data</b>		
Designations	S: Emitter / E: Receiver	
Range	25m	50m
Supply voltage	24VDC +-15%	
Current consumption	Emitter: 20mA / Receiver: 35mA	
Power dissipation	Emitter: 1.12W / Receiver: 0.7W	
Output	Push-pull, max. 100mA, short circuit protected	
Light source	infrared, 870nm	
Switching frequency	50Hz	
Response time	10ms	
Housing	M30, yellow brass, nickel plated	
Working temperature range	-20°C <T <sub>amb</sub> < +60°C	
Enclosure rating	IP 65, at EN 60529	
Connection cable, length: 3m	IRL-25/50-S-E-X: 2+PEx0,5mm <sup>2</sup> , TPU, shielded, leads numbering marked IRL-25/50-S-E-X-DI: 3+PEx0,5mm <sup>2</sup> , TPU, shielded, leads numbering marked IRL-25/50-E-E-X: 3+PEx0,5mm <sup>2</sup> , TPU, shielded, leads numbering marked	
Accessories, included	- 4 nuts M30 (or optional 2 clamps)	
Options	- IRL-25/50-S-E-X-DI: Emitter with disable input "DI" - Switching frequency up to 1kHz, on request - Cable length up to 100m, on request	
Function and LED-indication	 Light beam free LED = ON	 Light beam interrupted LED = OFF
IRL-..N-E-E-X Output N-function	 +24VDC Output=L 0V	 +24VDC Output=H 0V
IRL-..P-E-E-X Output P-function	 +24VDC Output=H 0V	 +24VDC Output=L 0V

IRL-25-50-SE-E-X\_e6/2013-07-09/HB



#### Wiring:



#### Operating Manual, EC - Declaration of Conformity:

##### Mounting prescription

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.

##### Function type IRL-25/50P-E-E-X

###### Function at standard connection of the supply voltage:

If the light beam is free, the output is at +24VDC. If the light beam is interrupted, the output switches to 0V.

The LED shows red.

###### Function at alternated polarity of the supply voltage

If the light beam is free, the output switches Minus (0V). If the light beam is interrupted, the output switches to +24VDC.

##### Function IRL-25/50N-E-E-X

###### Function at standard connection of the supply voltage:

If the light beam is free, the output switches Minus (0V). If the light beam is interrupted, the output switches to +24VDC.

The LED shows red.

###### Function at alternated polarity of the supply voltage

If the light beam is free, the output is at +24VDC. If the light beam is interrupted, the output switches to 0V.

##### Output

Push-pull type, maximum 100mA, short circuit protected. The load can be wired at +24VDC or Minus (0V).

##### X-Function

By alternating the polarity of the supply voltage, the output function can be inverted.

##### 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.

##### Arrangement of light barriers , only types IRL-25/50-S-E-X-DI

If several light barriers are installed close to another, it is necessary to use light barriers with emitters with disable input. By using

the disable input DI, each emitter can be controlled in a short reaction time. If only one emitter is activated in the same time, a mutual influence is precluded.

DI= 0V or not connected = emitter enabled  
DI= High (24VDC) = emitter disabled

The Disable Input DI must be activated for  $\geq 20$ ms. The DI input is PNP compatible. The Emitter-Disable-Input DI can also be used for testing the associated receiver. By a short-time shut-off of the emitter, the switching off of the receiver output and with it the correct function of the receiver will be checked.

##### Mechanical Mounting Prescriptions

Mount the light barriers free from vibrations and shocks. If it is practicable, protect the lenses from contamination.

##### General safety instructions

The light barriers must not be used for Accident-Prevention! 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 other national regulations:

The light barriers are conform to the following standards:

- Machine directive: 2006/42/EG
- RoHS: 2002/95/EG
- EMC: 2004/108/EG

##### 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 observation of the Quality Safety System ISO 9001:2008, declares:

Hans Bracher, Matrix Elektronik AG