

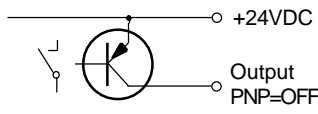
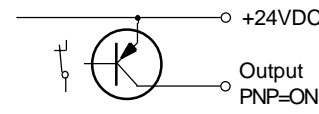
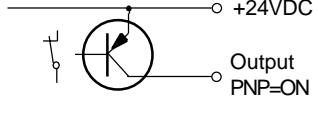
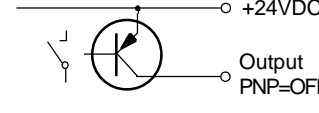
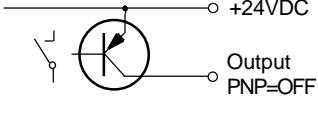
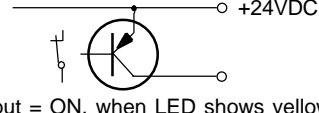


## Light Barrier IRL-25-S-DI S134 / IRL-25P-E-VA S134

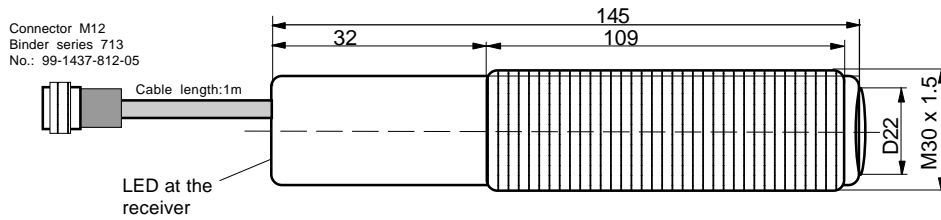
Extended operating temperature range -20°C to +100°C



- Wide temperature range
- With Pollution Indication Output
- For industrial applications

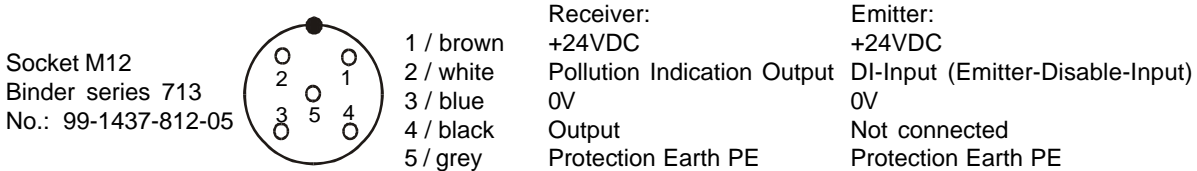
Technical Data	Type		Emitter: IRL-25-S-DI S134 / Receiver: IRL-25P-E-VA S134																			
Range	25m																					
Light source	880nm, infrared																					
Minimum detectable object size	20mm																					
Optical aperture	appr.12°																					
Response time	5ms																					
Switching frequency	100Hz																					
Supply voltage	24 VDC (20 to 26VDC)																					
Current consumption	Emitter:15mA / Receiver:25mA																					
Power dissipation	Emitter:0.4W / Receiver:0.65W																					
Output	PNP, maximum 100mA, short circuit protected																					
Pollution indication output	PNP, maximum 100mA, short circuit protected																					
Input	Emitter disable input, PNP compatible, Ri 10kΩ																					
Indication LED, Receiver	3-color status indication LED																					
Housing	M30, yellow brass, nickel plated																					
Enclosure rating at EN 60529	IP 65																					
Ambient operating temperature TA	-20°C < TA < +100°C																					
Connection cable	PTFE, type OELFLON FEP, 5G x 1.5mm <sup>2</sup> (No.: 01 03040507)																					
Cable socket	Binder M12, series 713, No.: 99-1437-812-05, 5 terminals																					
Accessories included	4 nuts M30 (optional 2 clamps)																					
Options	- IRL-25N-E-VA S134: With NPN output type																					
Function and LED indication	 Light beam interrupted LED=RED		 Light beam not interrupted LED=GREEN or YELLOW The LED shows yellow, when the lenses are polluted or the light barrier is bad aligned																			
Function on standard connection:	<table border="0"> <tr> <td>Pin No.</td> <td>Receiver:</td> <td>Emitter:</td> </tr> <tr> <td>1</td> <td>+24VDC</td> <td>+24VDC</td> </tr> <tr> <td>2</td> <td>OUT VA</td> <td>DI-Input</td> </tr> <tr> <td>3</td> <td>0V</td> <td>0V</td> </tr> <tr> <td>4</td> <td>Output</td> <td>NC</td> </tr> <tr> <td>5</td> <td>FE</td> <td>FE</td> </tr> </table> Cable shield: Bond the shield at PE or 0V		Pin No.	Receiver:	Emitter:	1	+24VDC	+24VDC	2	OUT VA	DI-Input	3	0V	0V	4	Output	NC	5	FE	FE	 	
Pin No.	Receiver:	Emitter:																				
1	+24VDC	+24VDC																				
2	OUT VA	DI-Input																				
3	0V	0V																				
4	Output	NC																				
5	FE	FE																				
Function on reversed polarity of the supply voltage:	<table border="0"> <tr> <td>Pin No.</td> <td>Receiver:</td> <td>Emitter:</td> </tr> <tr> <td>1</td> <td>0V</td> <td>+24VDC</td> </tr> <tr> <td>2</td> <td>OUT VA</td> <td>DI-Input</td> </tr> <tr> <td>3</td> <td>+24VDC</td> <td>0V</td> </tr> <tr> <td>4</td> <td>Output</td> <td>NC</td> </tr> <tr> <td>5</td> <td>FE</td> <td>FE</td> </tr> </table> Cable shield: Bond the shield at PE or 0V		Pin No.	Receiver:	Emitter:	1	0V	+24VDC	2	OUT VA	DI-Input	3	+24VDC	0V	4	Output	NC	5	FE	FE	 	
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3	+24VDC	0V																				
4	Output	NC																				
5	FE	FE																				
Pollution Indication Output "VA" The function is not dependent of the supply voltage			 Output = ON, when LED shows yellow. (Lenses are polluted)																			

**Dimensions:**

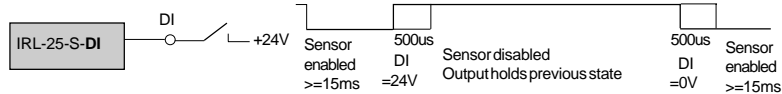


Same dimensions for Emitter and Receive

**Connection layout:**



**Emitter-Disable-Input "DI":**



Uin: 18V-28VDC, DI=+24V=Disable  
 Response time: <=500us  
 Hold time: >=15ms, DI = 0V=Enable

**Operating Manual / EC - Declaration of Conformity:**

**General mounting prescriptions:**

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 PE or 0V of the supply voltage. Connection cables must not be installed parallel to high voltage cables.

optimal alignment.

1. The emitter must be adjusted to the receiver.
2. The receiver should be moved, until the LED shows "green". Search the middle of the green range

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

If the light beam is not interrupted the output switches to ON (+24V). If the light beam is interrupted the output switches OFF. The load must be connected between the output and 0V.

**Maintenance**

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

**Function at inverse connection of the supply voltage:**

If the light beam is not interrupted the output switches to OFF. If the light beam is interrupted the output switches to ON (+24VDC). The load must be connected between the output and 0V.

**Safety Informations**

The light barriers types IRL-25P-S/E S134 must not be used for Accident-Prevention! In worst case of disturbance, the output can show any state. When installing and operating with the sensor, it is necessary to take into consideration the relevant international and other national regulations.

**Pollution indication output VA:**

Only when the receiver LED's shows yellow, the pollution indication output VA switches to +24VDC. (Light barrier bad aligned, lenses polluted or other impairments). If the receiver LED's shows green or red, the output VA is switched to OFF. This function gives the possibility to a fast reaction at polluted lenses.

Standards met:

- EN 50081-1/-2, EN 50082-1/-2, EN 60529
- Machine directive: 98/37/EG
- Low voltage directive: 73/23/EWG, 93/68/EWG
- EMC: 89/336/EWG, 91/263/EWG, 92/31/EWG, 93/68/EWG
- RoHS, 2002/95/EG

**Arrangement of light barriers:**

If several light barriers are installed close to another, it is necessary to use the emitter disable input DI. 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 >= 15ms.  
 The DI input is PNP compatible.

**General Notes**

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.

**Alignment of the Light Barrier**

The three color indication at the receiver allows an

**Declaration of Conformity:**

The conformity of the devices with the EC standards and directives and the observation of the Quality Safety System ISO 9001:2000, declares:

Hans Bracher, Matrix Elektronik AG

IRL25\_S134\_e1/MAY04,06/HB