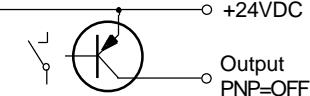
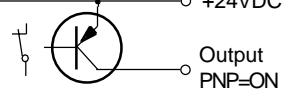
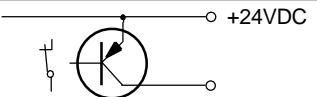


## Light Barrier IRL-25-S-DI S134 / IRL-25P-E-VA S134

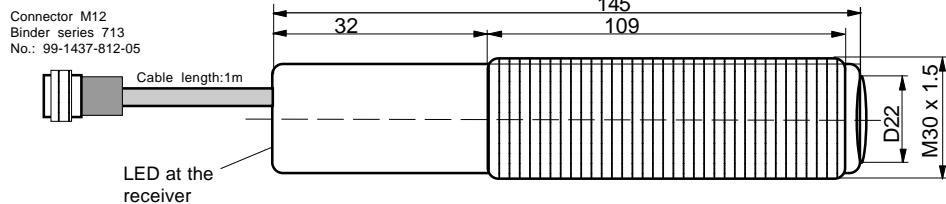
Extended operating temperature range -20°C to +100°C



- 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, $R_i$ 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:			
Pin No.	Receiver:	Emitter:	
1	+24VDC	+24VDC	
2	OUT VA	DI-Input	
3	0V	0V	
4	Output	NC	
5	PE	PE	
Cable shield:	Bond the shield at PE or 0V		
Function on reversed polarity of the supply voltage:			
Pin No.	Receiver:	Emitter:	
1	0V	+24VDC	
2	OUT VA	DI-Input	
3	+24VDC	0V	
4	Output	NC	
5	PE	PE	
Cable shield:	Bond the shield at PE or 0V		
Pollution Indication Output "VA"			
The function is not dependent of the supply voltage			
			Output = ON, when LED shows yellow. (Lenses are polluted)

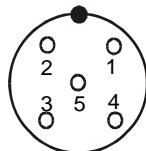
## Dimensions:



Same dimensions for Emitter and Receive

## Connection layout:

Socket M12  
Binder series 713  
No.: 99-1437-812-05

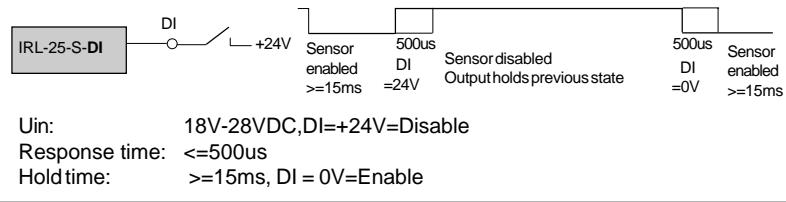


1 / brown  
2 / white  
3 / blue  
4 / black  
5 / grey

Receiver:  
+24VDC  
Pollution Indication Output  
0V  
Output  
Protection Earth PE

Emitter:  
+24VDC  
DI-Input (Emitter-Disable-Input)  
0V  
Not connected  
Protection Earth PE

## 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

### Maintenance

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

### 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.

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

### 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.

### 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

### 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.

### Alignment of the Light Barrier

The three color indication at the receiver allows an

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