

- **Recognition of holes >1mm**
- **control field up to 2,8m**
- **Sensitivity adjustable**
- **Compact design**
- **High scanning speed**

Application: Recognition of faults (holes, chinks) in metal- and plastic sheet, sheet steel band and paper web, veneer wood, etc.

Function: The device consists of the two components, light transmitter and light receiver.
The **transmitter** creates an invisible, modulated infrared light band.
The **receiver** consists of a number of optical modules, the signal amplifier and the integrating control unit. The sensitivity is adjustable, therefore the device can recognize very small holes ($\geq 1\text{mm } \varnothing$). In the case of a hole, the output transistor respectively the output relay picks up and the LED "Loch erkannt" (hole recognized) lights up.

Hole-Size: The hole-size is adjustable between $\geq 1\text{mm } \varnothing$ up to $15\text{m } \varnothing$ by the potentiometer "Lochgröße" (hole size). The setting range diminishes by the increasing light transmitting capacity of the to be controlled material.

Mode Of Operation:

Statistic:

Impervious to light material:

The mode of operation "statistic" is used for material which is impervious to light.

The output switches if there are holes larger than the adjusted hole size. The examination will be also if there is a stop (stillstand) of the material.

Transparent material:

By using the mode of operation "statistic" for material which is transparent, there must be used another sensitivity for every change of the light transmitting capacity, for recognizing the same hole-size.


Dynamical material adaptation:

Transparent material:

This operation mode is **only** suited for transparent material.

The device adapts itself automatically to the transparent material. Thereby the device recognizes with the same adjusted hole-size the same size of holes also if the material has not the same light transmitting capacity (for example different kind of paper). The device measures and memorizes the light transmitting capacity of the moving material. This value is used like a reference for the sensitivity adjustment. Important by using this mode of operation is the movement of the to be controlled material. There is no examination by stillstand!

Rating :

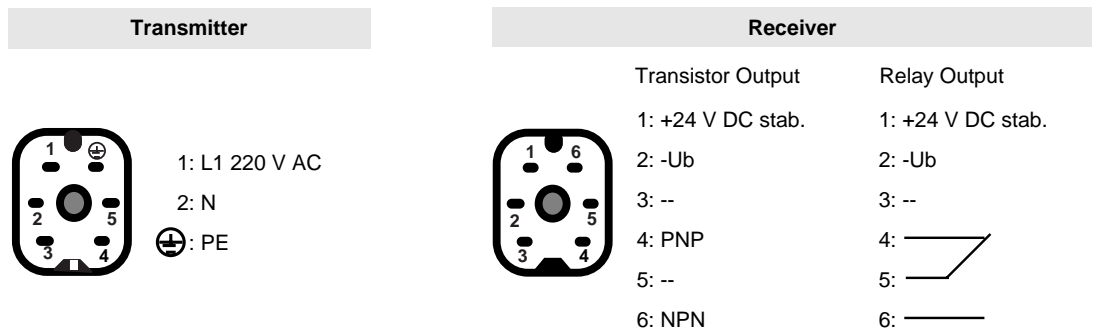
	Light Transmitter	Light Receiver	
		Transistor Output	Relay Output
Supply Voltage	230V/50 Hz	24V DC stabilized	
Power Consumption Depending On The Length Of Installation	15 mA - 35 mA	50 mA - 200 mA	
Light Source	GaAlAs, infrared, 36 kHz	--	--
Output	--	NPN / PNP max. 100 mA short circuit proof	Relay  5 A / 250 V, ind. free 0,2 s fall delay time
Response Time	--	ca. 1ms	ca. 10ms
Enclosure Rating	IP 51 (optional IP 65)		
Ambient Temperature	-10to +50 °C		

Band Speed: The max. band speed depends on the min. hole-size.
The sensitivity takes off with increasing band speed. Band speeds are possible till about 30 m/s.

Output: The standard type provides with transistor output (PNP and NPN). A relay output is optional available. The type with transistor output has a rise time of about 1 ms. The type with relay output has a fall-delay time of about 200 ms.

Installation: Movable key blocks on the backside of the housing enable a flexible installation. The housings must be installed plane-parallel in a distance of about 50-100mm. Please observe that the profile remains untwisted. The to be controlled material should be in the middle between transmitter and receiver. The band has to cover the complete light field. On both sides the band must be 15 mm wider than the light field itself. If the band is smaller, the free space of the receiver must be covered.

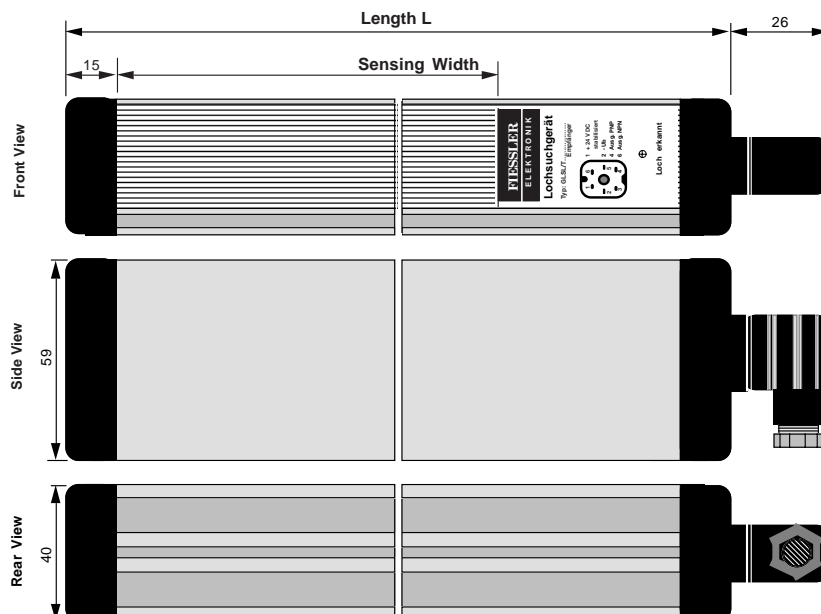
Connection Diagram: Connection by a 6-pole plug-type connector.



Size:

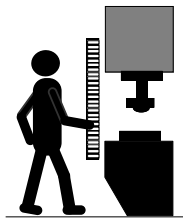
Type	Sensing Width mm	Length L mm	Overall length mm
GLSL 250	250	334	360
GLSL 500	500	584	610
GLSL 750	750	834	860
GLSL 1000	1000	1084	1110
GLSL 1250	1250	1334	1360
GLSL 1500	1500	1584	1610
GLSL 1750	1750	1834	1860
GLSL 2000	2000	2084	2110
GLSL 2250	2250	2334	2360
GLSL 2500	2500	2584	2610
GLSL 2750	2750	2834	2860

Dimensions:

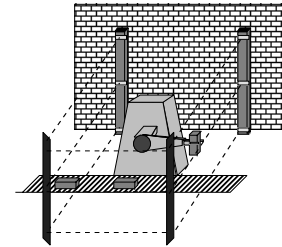


Delivery Program

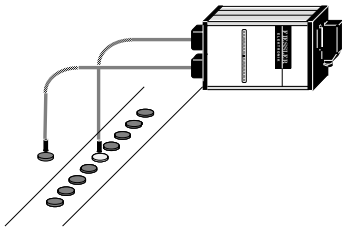
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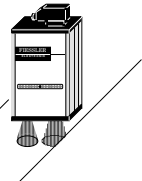
Safety-Light-Curtain



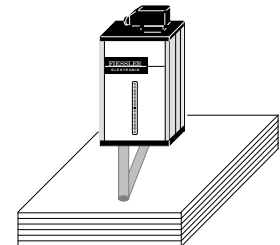
Safety-Light-Grid



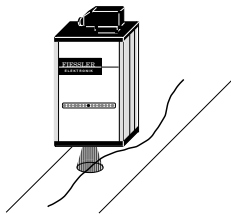
Reference-Sensor



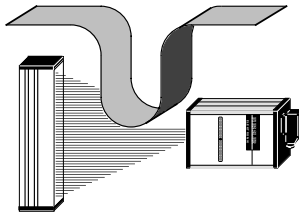
Edge-Sensor



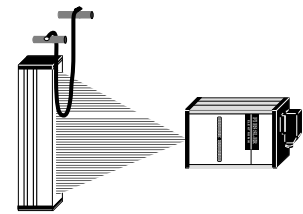
Distance-Sensor



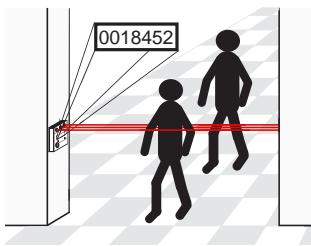
Line-Sensor



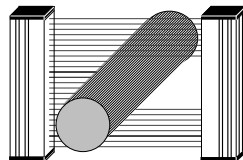
Analogue Loop-Detector



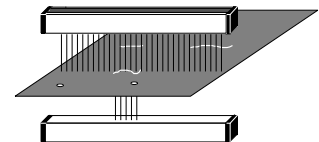
Loop-Detector For Tubes



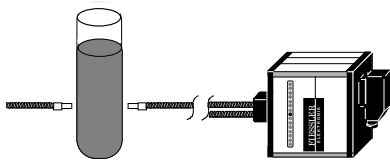
Light Barrier For Counting



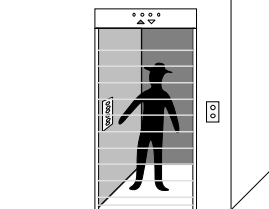
Switching And Analogue Light-Curtain



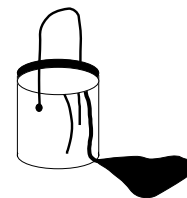
Hole-Detector



Cloudiness-Detector



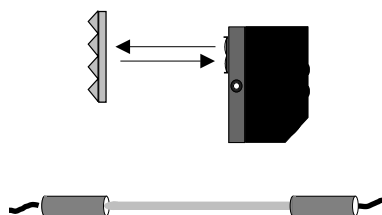
Lift Safety-Light-Curtain



Colour-Sensor



Ex-Light-Barrier



Light-Barrier For General Applications



Your Application