



### Model Number

#### GL5-T/43a/115e

Photoelectric slot sensor  
cable with 4-pin Molex connector

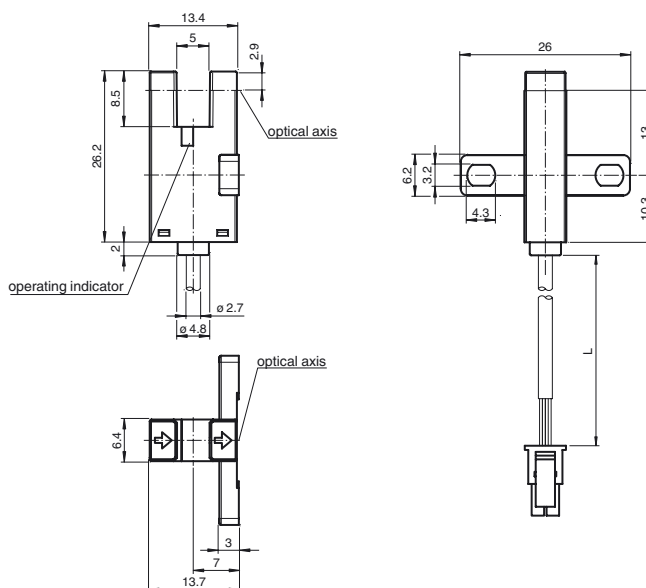
### Features

- Miniature design
- Optimized for the detection of small parts
- High switching frequency
- Simple and fast mounting
- Clearly visible LED functional display

### Product information

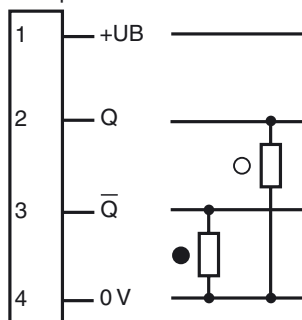
The GL5 miniature slot sensor compares a high optical performance in a small housing and is optimized to the requirements in semi-conductors industry for small part detection. A wide voltage range of 5 - 24 V DC and the fastest switching frequency of 5 kHz in its class stands for the quality of this sensor. The integrated aperture allows the small part detection with a minimum object size of 0.8 x 1.8 mm. The sensor offers antivalent npn or pnp outputs. Due to a variety of different housings and an optimized housing concept offers the sensor a maximum of freedom in a crowded mounting environment.

### Dimensions



### Electrical connection

Option: 43a



○ = Light on  
● = Dark on

### Pinout



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	BK	(black)
3	WH	(white)
4	BU	(blue)

## Technical data

### General specifications

Light source	IREL
Light type	Infrared, continuous light , 940 nm
Target size	0.8 x 1.8 mm
Slot width	5 mm
Slot depth	8.5 mm
Ambient light limit	1000 Lux

### Functional safety related parameters

MTTF <sub>d</sub>	3760 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %

### Indicators/operating means

Function indicator	red LED lights up when receiving the light beam
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### Electrical specifications

Operating voltage	U <sub>B</sub>	5 ... 24 V DC , class 2
No-load supply current	I <sub>0</sub>	max. 20 mA
Time delay before availability	t <sub>v</sub>	< 2 ms

### Output

Switching type	light/dark on	
Signal output	2 PNP complementary , overvoltage protected	
Switching voltage	max. 30 V DC	
Switching current	max. 50 mA , resistive load	
Voltage drop	U <sub>d</sub>	max. 0.2 V at 10 mA max. 0.6 V at 50 mA
Switching frequency	f	max. 5 kHz
Response time	40 μs Light beam is not interrupted 80 μs Light beam is interrupted	
Repeat accuracy	R	0.03 mm

### Ambient conditions

Ambient temperature	-25 ... 55 °C (-13 ... 131 °F)
Storage temperature	-30 ... 80 °C (-22 ... 176 °F)
Pollution degree	2

### Mechanical specifications

Housing width		26 mm
Housing height		13.4 mm
Degree of protection		IP50
Connection		cable with 4-pin Molex connector
Material		
Housing		PBT
Cable		
Length	L	1.4 m
Mass		approx. 25 g
Tightening torque, fastening screws		0.6 Nm
Cable length		1.4 m

### Compliance with standards and directives

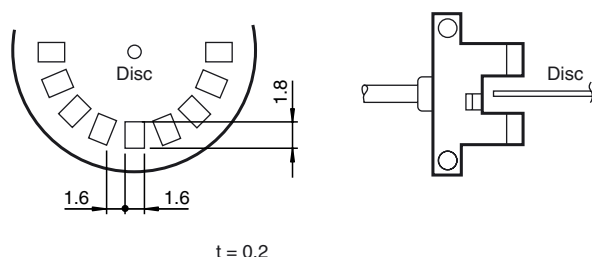
Directive conformity	
EMC Directive 2004/108/EC	EN 60947-5-2
Standard conformity	
Standards	UL 60947-5-2

### Approvals and certificates

UL approval	cULus Recognized, Class 2 Power Source
CCC approval	CCC approval / marking not required for products rated ≤36 V

## Response frequency

The response frequency is the value when the disc, given in the figure below, is rotated.



## Applications

The GL5 is suited for applications in the semiconductor and electronic industrial environment.

Typical applications include:

1. Detection of lead frames
2. Detection of cam positions
3. Detection of limit positions of moving objects



#### 4. Position detection of wafer cases

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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