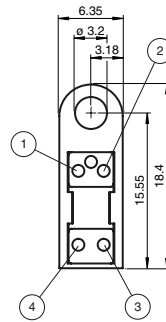
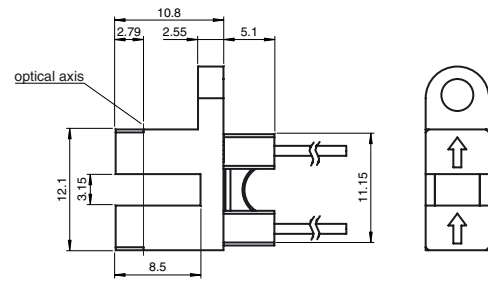




Dimensions



1	collector
2	emitter
3	anode
4	cathode



Model Number

GL3-P/153

Photoelectric slot sensor
with fixed cable

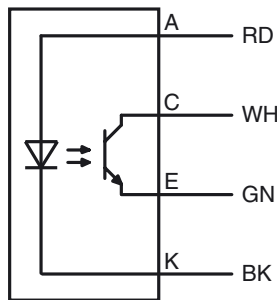
Features

- Miniature design
- Optimized for the detection of small parts
- High switching frequency

Product information

The GL2 & GL3 miniature slot sensor is the smallest slot sensor in its family optimized to the requirements in semiconductors industry for small part detection. A wide voltage range of 5 V DC ... 30 V DC and a extreme fast response time of 25 µs stands for the quality of this sensor. The GL2 & GL3 sensor can be directly connected to a comparator or Schmitt-trigger circuit. Due to a variety of different housings and an optimized housing concept offers the sensor a maximum of freedom in a crowded mounting environment.

Electrical connection



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

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Technical data**General specifications**

Light source	IREDD , 940 nm
Light type	IREDD
Fork width	3.15 mm
Ambient light limit	1000 Lux

Electrical specifications

Operating voltage	U_B	5 ... 30 V DC
Ripple		10 %

Emitter

Light type		940 nm IR light
Forward voltage	V_F	< 1.6 V

Peak forward voltage	V_{FM}	30 V
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Forward current	I_F	50 mA
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Peak forward current	I_{FM}	1 A
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Reverse voltage	V_R	5 V
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Reverse current	I_R	$\leq 10 \mu A$
-----------------	-------	-----------------

Power loss		75 mW
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Receiver

Output type		NPN
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C-E breakdown voltage	V_{CEO}	30 V
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E-C breakdown voltage	V_{ECO}	5 V
-----------------------	-----------	-----

Collector dark current	I_{CEO}	< 1 μA
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Collector DC current	I_C	20 mA
----------------------	-------	-------

Power loss	P_D	75 mW
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Output

Signal output		1 NPN , photo transistor
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Switching voltage		max. 30 V DC
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Switching current		20 mA
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Response time		25 μs
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Ambient conditions

Ambient temperature		-20 ... 85 °C (-4 ... 185 °F)
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Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
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Mechanical specifications

Core cross-section		4 x 0.08 mm ²
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Protection degree		IP30
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Connection		610 mm, PVC cable , Individual colored wires
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Material

Housing		PC
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Mass		7 g
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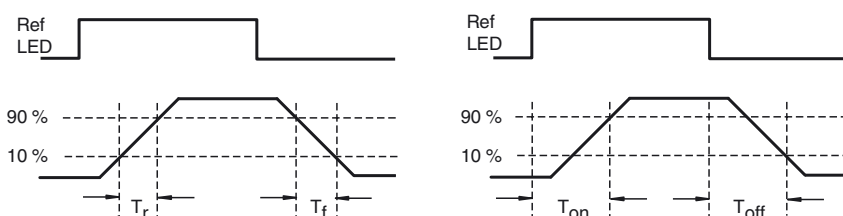
Approvals and certificates

CCC approval		CCC approval / marking not required for products rated ≤ 36 V
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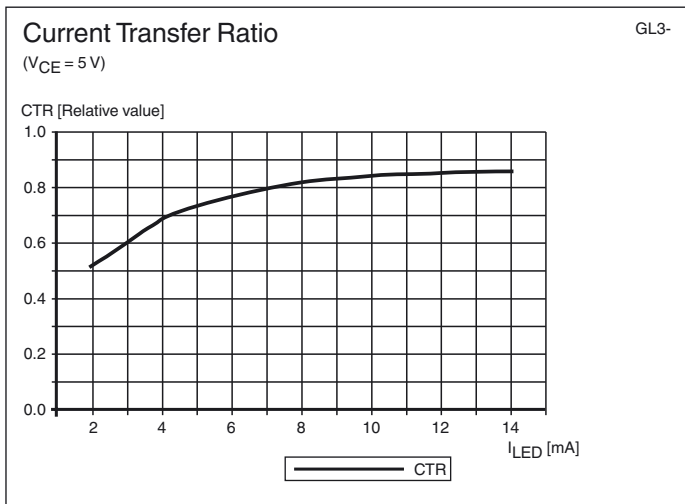
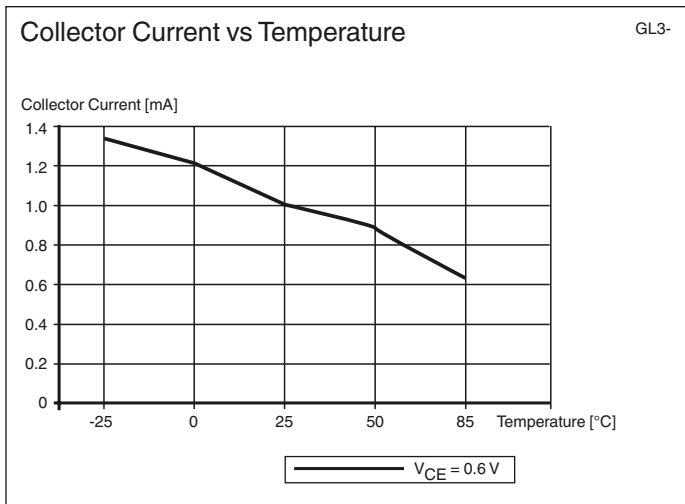
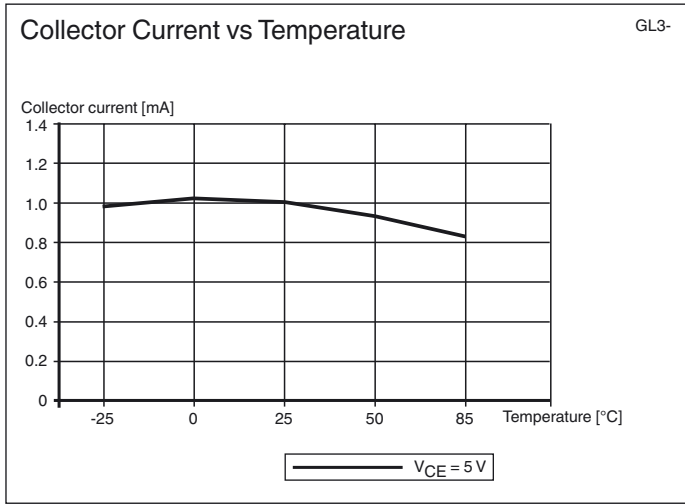
Curves/Diagrams**Characteristic response curve**

GL3-

The rise (T_r) the fall (T_f) and the response time (T_{on}/T_{off}) is tested with reference LED.

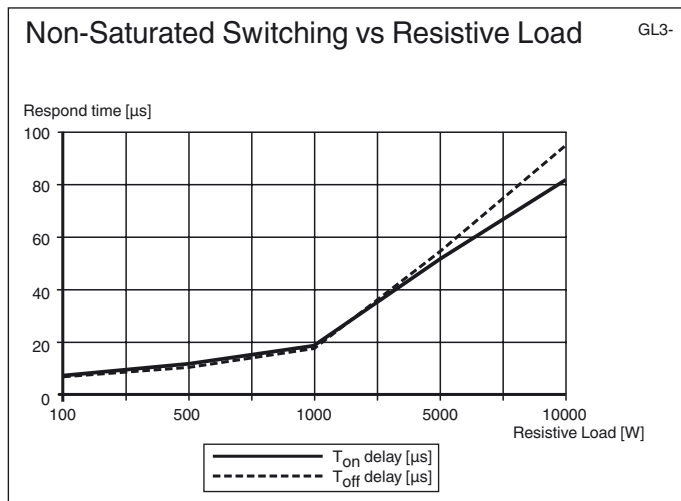
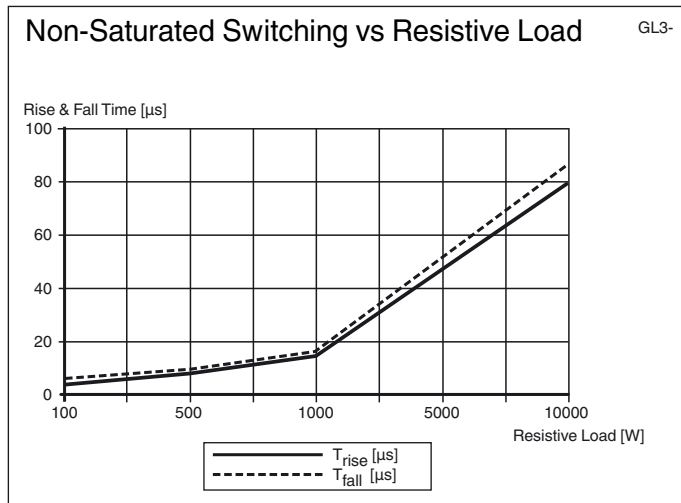
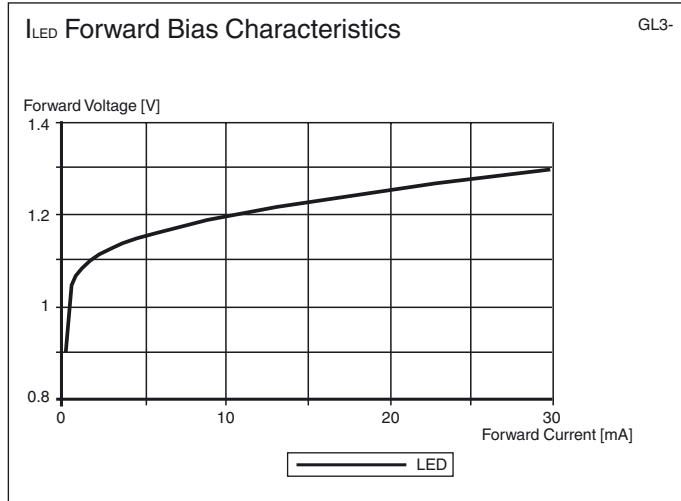


Curves/Diagrams

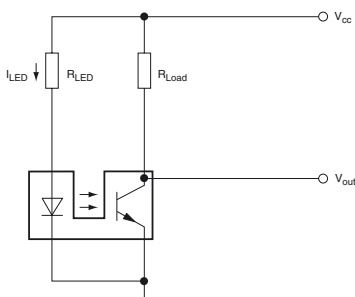


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Connection example

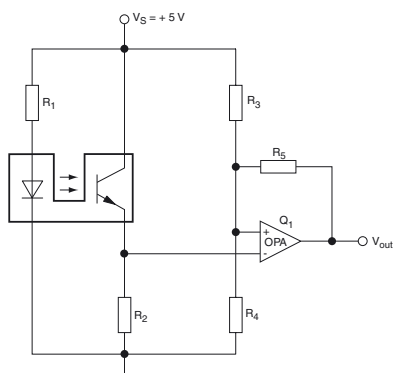


3 simple steps:

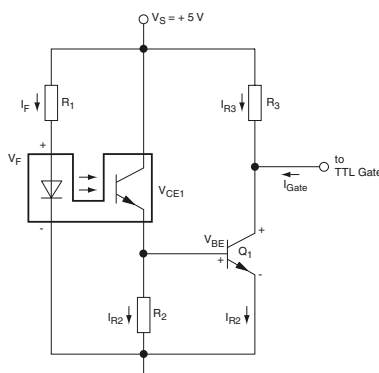
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- Choose power supply
- Choose LED current (set resistor R_{LED})
- Choose load current (set resistor R_{LOAD})

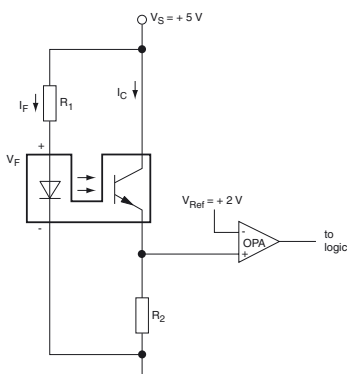
Possible connections



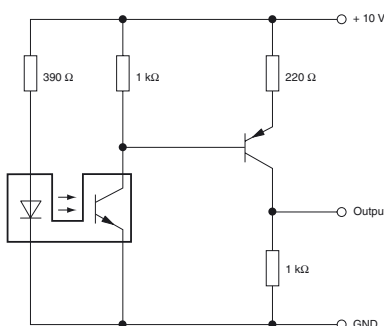
Circuit with voltage comparator



Circuit with additional transistor



Circuit with Op Amp



Circuit with PNP transistor output

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