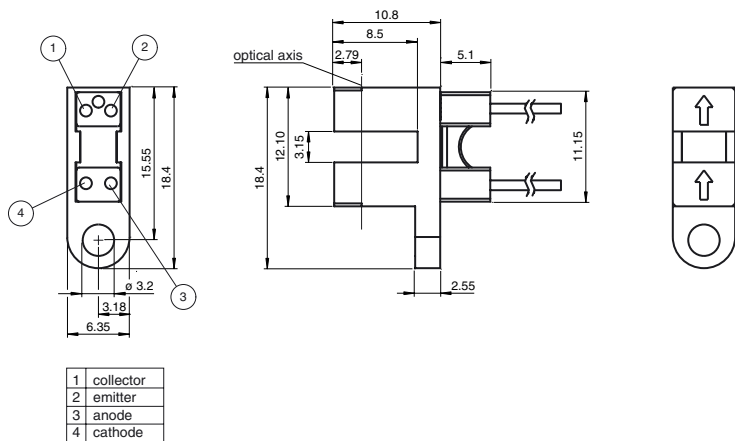




**Dimensions**



**Model Number**

**GL3-L/153**

Photoelectric slot sensor  
with fixed cable

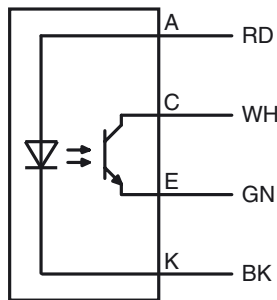
**Features**

- 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".

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 4411  
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

**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	$I_R$	$\leq 10 \mu A$
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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
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Collector dark current	$I_{CEO}$	< 1 $\mu A$
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Collector DC current	$I_C$	20 mA
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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 $\mu s$
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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 <sup>2</sup>
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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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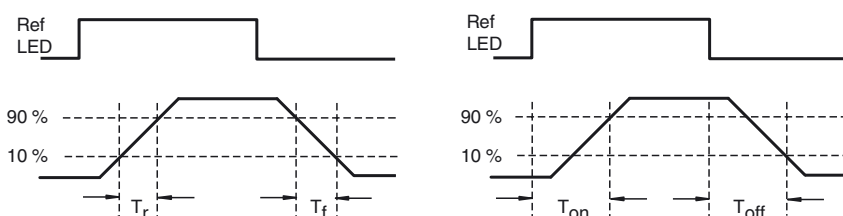
**Approvals and certificates**

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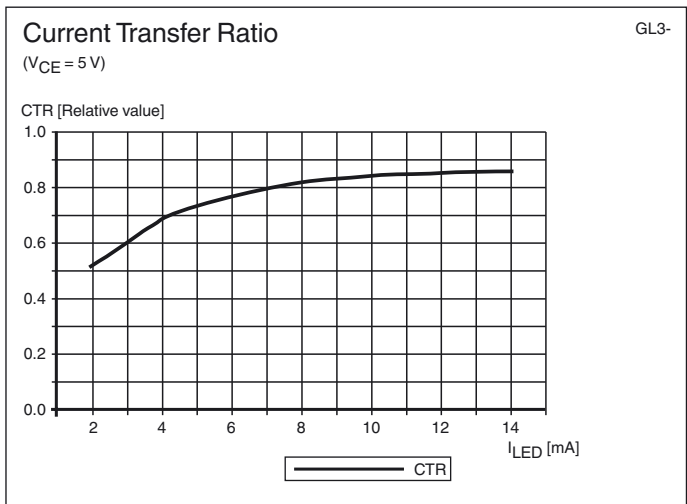
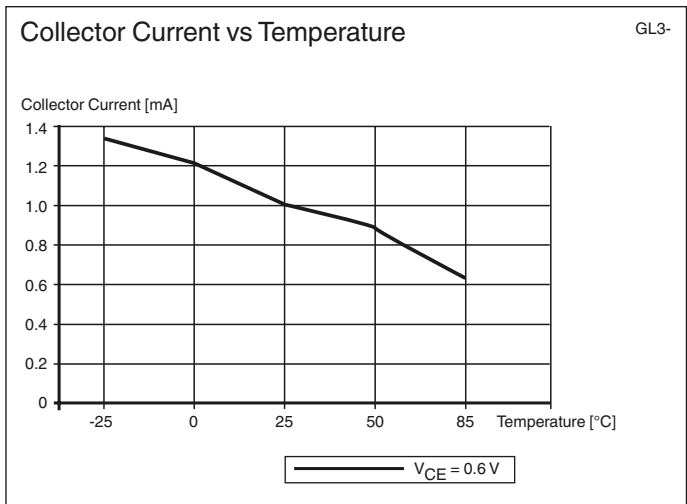
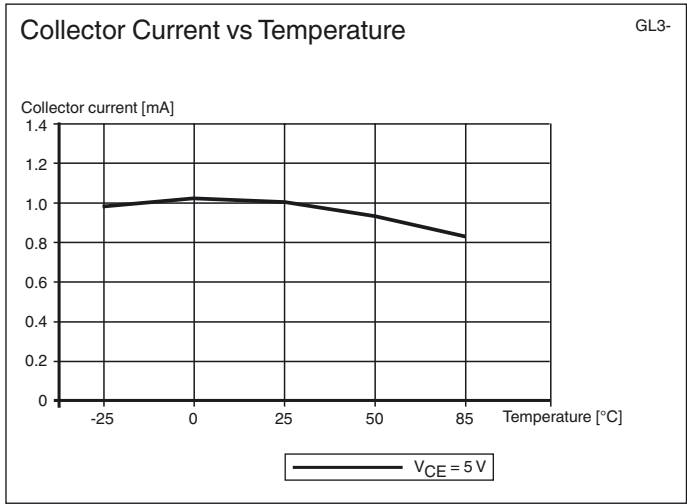
**Curves/Diagrams****Characteristic response curve**

GL3-

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

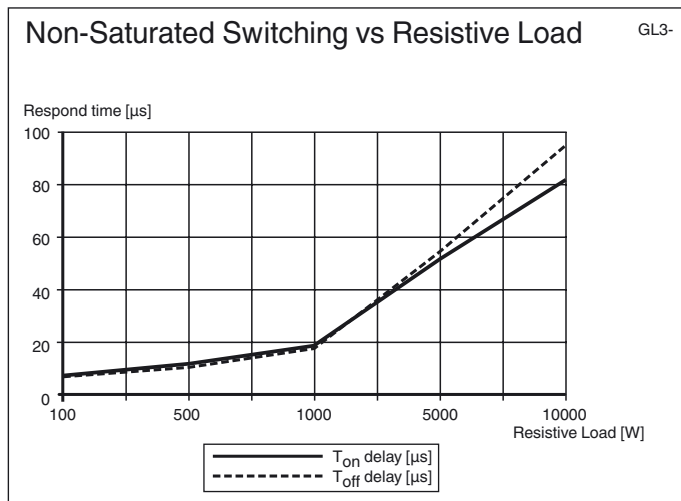
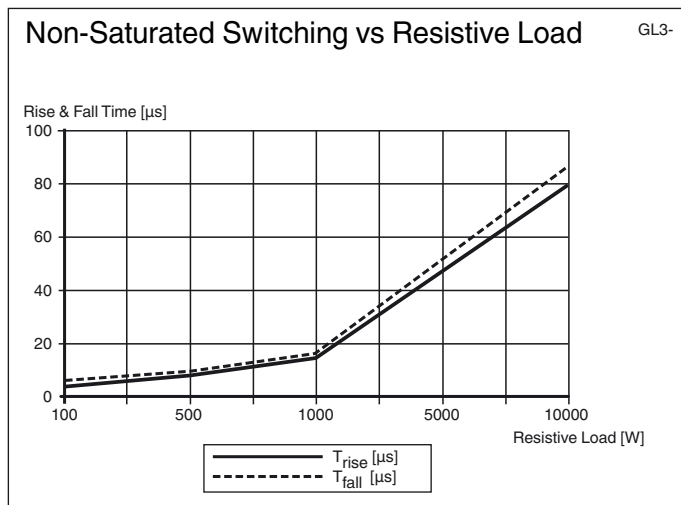
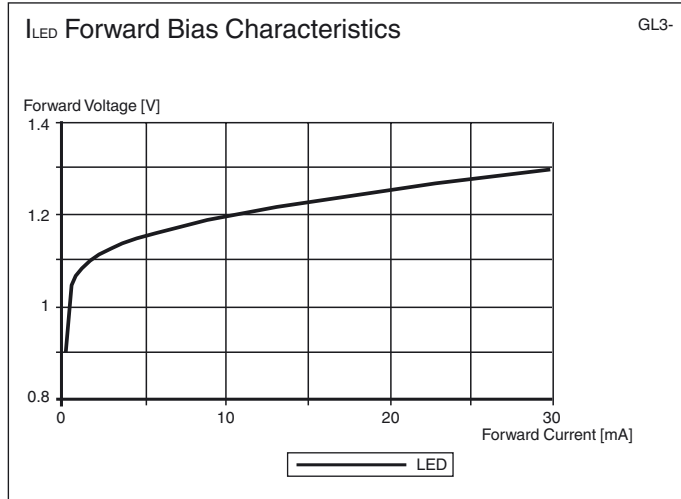


Curves/Diagrams

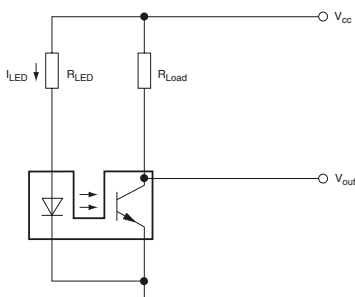


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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".



### Connection example

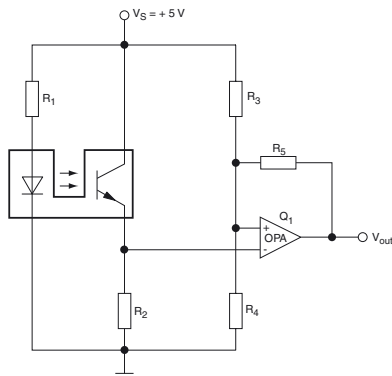


3 simple steps:

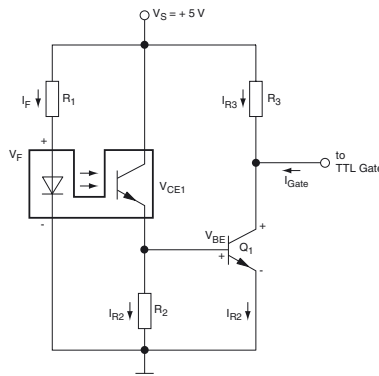
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- Choose power supply
- Choose LED current (set resistor  $R_{LED}$ )
- Choose load current (set resistor  $R_{LOAD}$ )

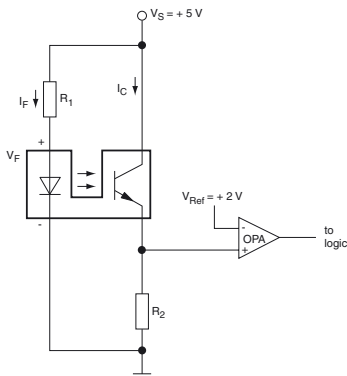
**Possible connections**



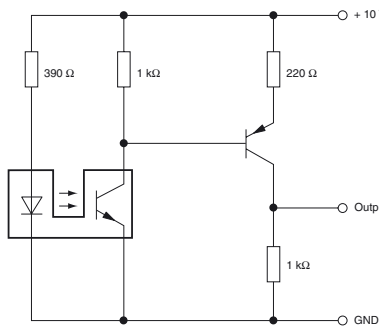
Circuit with voltage comparator



Circuit with additional transistor



Circuit with Op Amp



Circuit with PNP transistor output