

Model Number

GL2-P/153

Photoelectric slot sensor
with fixed cable

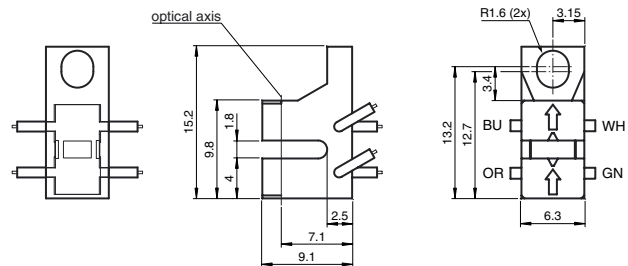
Features

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

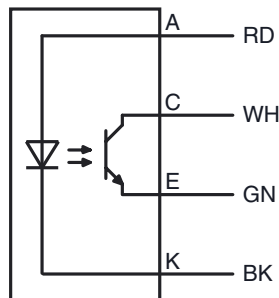
Product information

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 μ s 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.

Dimensions



Electrical connection



Technical data

General specifications

Light source	IREDD , 940 nm
Light type	IREDD
Target size	0.2 x 2.6 mm
Fork width	1.8 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
Forward current	I_F	50 mA
Peak forward current	I_{FM}	1 A
Reverse voltage	V_R	5 V
Reverse current	I_R	≤ 10 μA
Power loss		75 mW

Receiver

Output type		NPN
C-E breakdown voltage	V_{CEO}	30 V
E-C breakdown voltage	V_{ECO}	5 V
Collector dark current	I_{CEO}	< 1 μA
Collector DC current	I_C	20 mA
Power loss	P_D	75 mW

Output

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

Ambient conditions

Ambient temperature		-40 ... 85 °C (-40 ... 185 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)

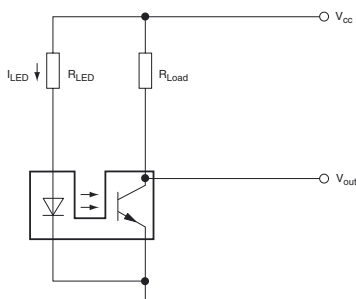
Mechanical specifications

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

Approvals and certificates

CCC approval		CCC approval / marking not required for products rated ≤36 V
--------------	--	--

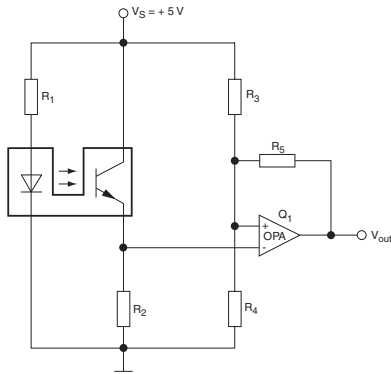
Connection example



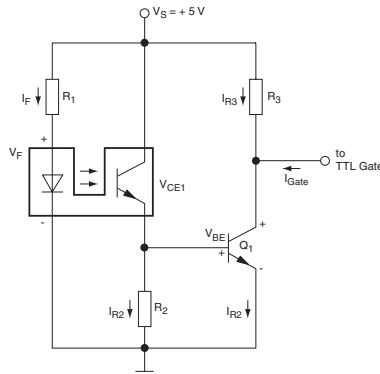
3 simple steps:

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

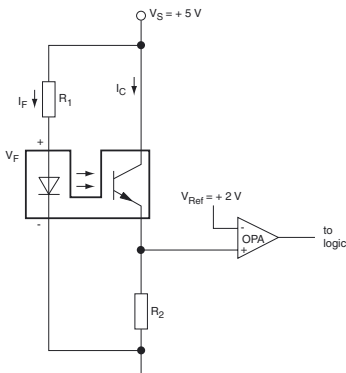
Possible connections



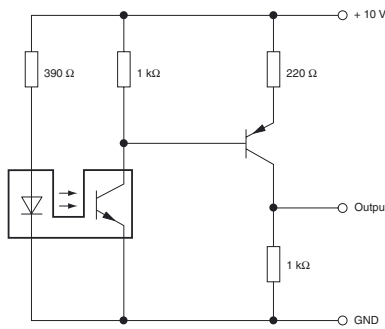
Circuit with voltage comparator



Circuit with additional transistor



Circuit with Op Amp



Circuit with PNP transistor output

Release date: 2014-02-07 11:23 Date of issue: 2014-02-07 803747_eng.xml

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