

Photoelectric Slot Sensor

GL5-U/43a/115-3.5M

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

Miniature photoelectric slot sensor for the detection of small parts, U design, fork width 5 mm, infrared light, PNP outputs, fixed cable

Function

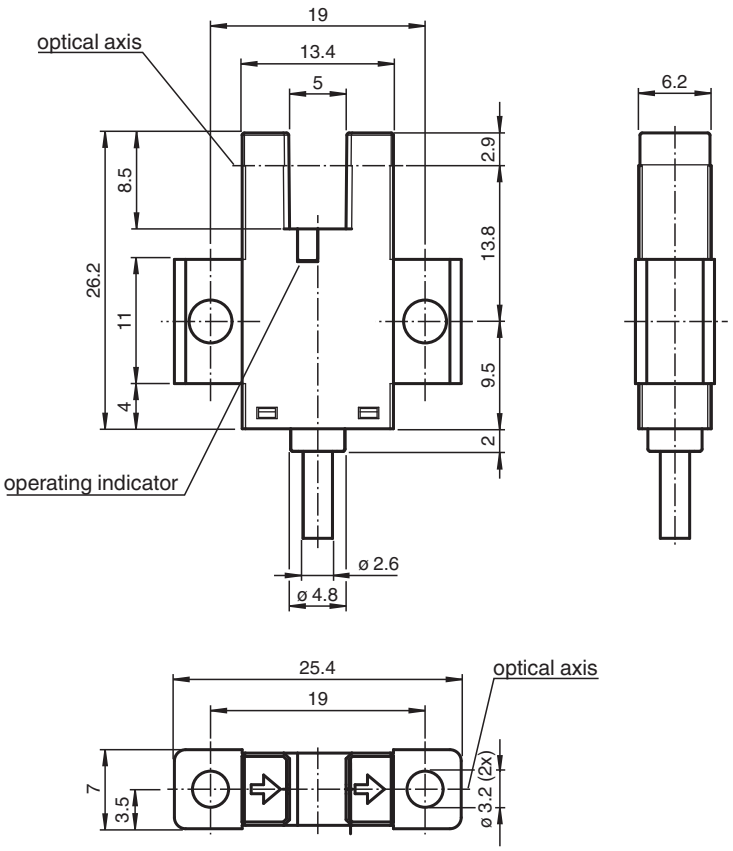
The GL5 miniature slot sensor compares a high optical performance in a small housing and is optimized to the requirements in semiconductors industry for small part detection. A wide voltage range of 5 - 24 V DC and the fastest switching frequency of 5 kHz in its class stands for the quality of this sensor. 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.

Application

- Detection of lead frames
- Detection of cam positions
- Detection of limit positions of moving objects
- Position detection of wafer cases

Release date: 2026-11-03 Date of issue: 2026-11-03 Filename: 70161136_eng.pdf

Dimensions



Technical Data

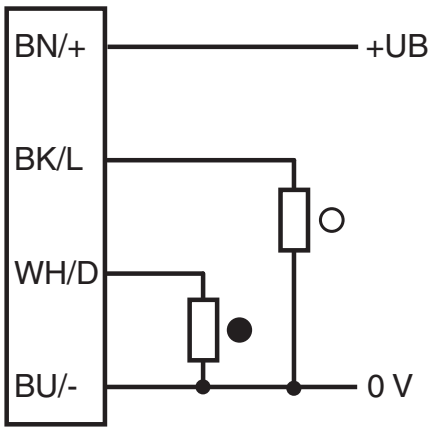
General specifications		
Light source		IRED
Light type		Infrared, continuous light , 940 nm
Target size		0.8 x 1.8 mm
Slot width		5 mm
Slot depth		8.5 mm
Ambient light limit		1000 Lux
Functional safety related parameters		
$MTTF_d$		3760 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Indicators/operating means		
Function indicator		red LED lights up when receiving the light beam
Electrical specifications		
Operating voltage	U_B	5 ... 24 V DC , class 2
No-load supply current	I_0	max. 20 mA
Time delay before availability	t_v	< 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_d	max. 0.2 V at 10 mA max. 0.6 V at 50 mA
Switching frequency	f	max. 5 kHz

Release date: 2026-11-03 Date of issue: 2026-11-03 Filename: 70161136_eng.pdf

Technical Data

Response time		40 µs Light beam is not interrupted 80 µs Light beam is interrupted
Repeat accuracy	R	0.03 mm
Compliance with standards and directives		
Directive conformity		
EMC Directive 2004/108/EC		EN 60947-5-2:2007+A1:2012
Standard conformity		
Standards		UL 60947-5-2
Approvals and certificates		
UL approval		E87056 , cULus Recognized, Class 2 Power Source Further UL information see section "Additional Information"
Ambient conditions		
Ambient temperature		-25 ... 55 °C (-13 ... 131 °F)
Storage temperature		-30 ... 80 °C (-22 ... 176 °F)
Pollution degree		2
Mechanical specifications		
Degree of protection		IP50
Connection		3.5 m PVC cable , 4 x 0.08 mm²
Material		
Housing		PBT
Mass		approx. 35 g
Tightening torque, fastening screws		0.6 Nm
Dimensions		
Height		25.4 mm
Width		7 mm
Length		26.2 mm
Cable length		3.5 m

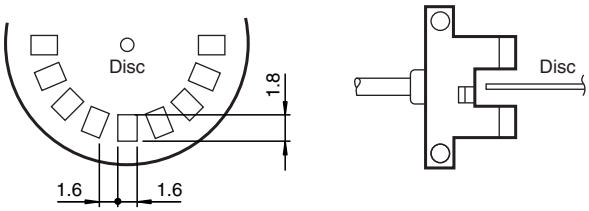
Connection Assignment



○ = Light on
● = Dark on

Release date: 2026-11-03 Date of issue: 2026-11-03 Filename: 70161136_eng.pdf

Technical Features



t = 0.2

Response frequency
The response frequency was measured by detecting the rotating disk shown in the figure.

Additional Information

Additional UL Information
Conditions of Acceptability:
These devices should be mounted within a suitable ultimate enclosure with proper end products spacings.
These devices shall be used within their recognized electrical ratings.
These devices are intended for factory wiring only. The suitability of the power cord and strain relief should be determined in the end use application.
These proximity switches are intended to be powered by Listed Class 2 power supply or are located in a limited voltage / limited current circuit.

Release date: 2026-11-03 Date of issue: 2026-11-03 Filename: 70161136_eng.pdf