



Photoelectric sensors
G6, Photoelectric retro-reflective sensor,
Standard optics

GL6-N0111S12

Model Name > [GL6-N0111S12](#)
Part No. > [1059087](#)



At a glance

- PinPoint LED for a bright, precise light spot
- Durable metal threaded inserts
- SICK ASIC technology - the result of decades of experience in photoelectric sensors
- Large, user-friendly potentiometer
- Large, bright indicator LEDs
- IP 67 enclosure rating

Your benefits

- Easy alignment and precise object detection due to a highly visible PinPoint LED
- Quick and easy mounting and high durability due to threaded metal inserts
- SICK ASIC technology provides high performance, excellent reliability and crosstalk immunity
- Easy to adjust due to large, user-friendly potentiometers
- Easy to monitor due to large, bright indicator LEDs
- Easy installation with SICK accessories



Features

Sensor/detection principle:	Photoelectric retro-reflective sensor, Standard optics
Dimensions (W x H x D):	12 mm x 31.5 mm x 21 mm
Housing design (light emission):	Rectangular
Sensing range max.:	≤ 6 m ¹⁾
Sensing range:	≤ 5 m ²⁾
Type of light:	Visible red light
Light source:	PinPoint LED ³⁾
Wave length:	650 nm
Light spot size (distance):	Ø 8 mm (350 mm)

^{1) 2)} PL80A ³⁾ Average service life of 100,000 h at T_A = +25 °C

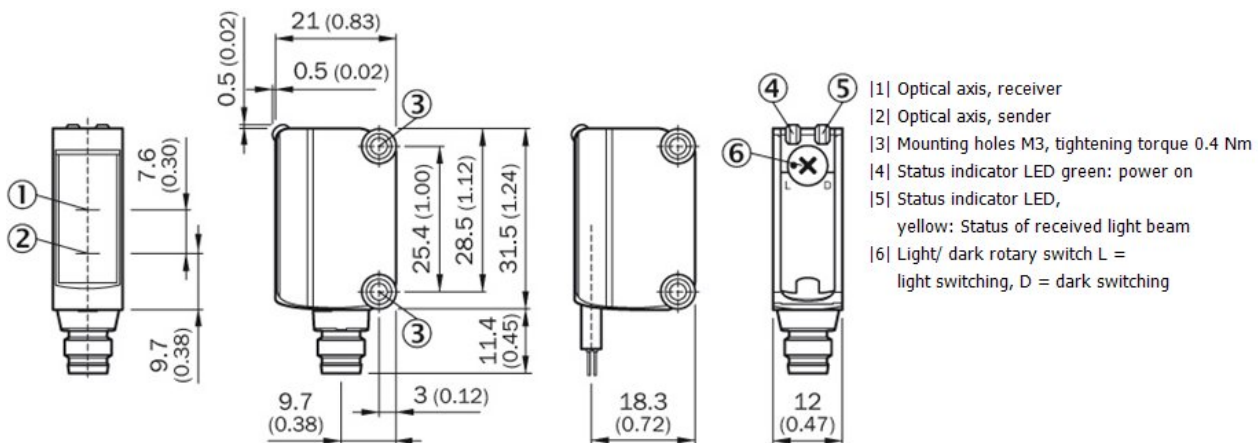
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Power consumption:	≤ 30 mA ²⁾
Output type:	NPN, open collector
Switching mode:	Light/dark-switching
Switching mode selector:	Selectable via light/dark selector

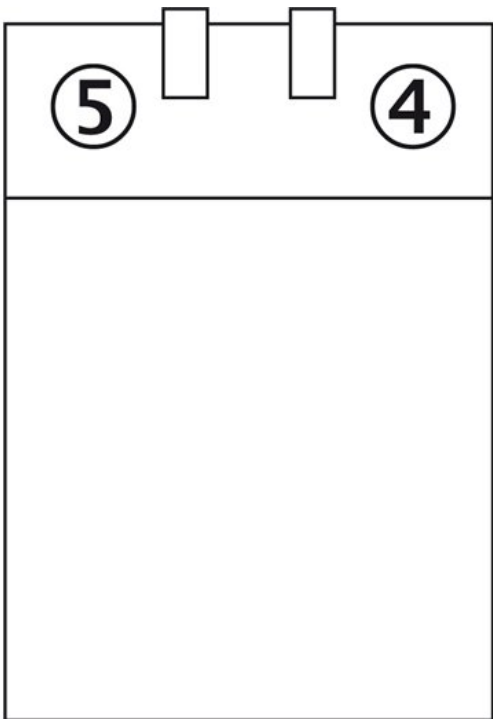
Signal voltage NPN HIGH/LOW:	Approx. $V_S/\leq 3\text{ V}$
Output current I_{max} :	$\leq 100\text{ mA}$ ³⁾
Response time:	$< 625\text{ }\mu\text{s}$ ⁴⁾
Switching frequency:	$1,000\text{ Hz}$ ⁵⁾
Connection type:	Cable with connector, JST, 3-pin, $1,300\text{ mm}$ ⁶⁾
Cable material:	PVC
Conductor cross-section:	0.14 mm^2
Circuit protection:::	A, B, D ⁷⁾ ⁸⁾ ⁹⁾
Weight:	60 g
Polarisation filter:	✓
AS-Interface-Chip:	-
Housing material:	ABS/PC, Plastic
Optics material:	PMMA
Enclosure rating:	IP 67
Ambient operating temperature:	$-25\text{ }^\circ\text{C} \dots 55\text{ }^\circ\text{C}$
Ambient storage temperature:	$-40\text{ }^\circ\text{C} \dots 70\text{ }^\circ\text{C}$

¹⁾ Limit values, operation in short-circuit protected network max. 8 A ²⁾ Without load ³⁾ At $V_S > 24\text{ V}$, $I_A \text{ max} = 50\text{ mA}$ ⁴⁾ Signal transit time with resistive load ⁵⁾ With light/dark ratio 1:1 ⁶⁾ Do not bend below $0\text{ }^\circ\text{C}$ ⁷⁾ A = V_S connections reverse-polarity protected ⁸⁾ B = inputs and output reverse-polarity protected ⁹⁾ D = outputs overcurrent and short-circuit protected

Dimensional drawing



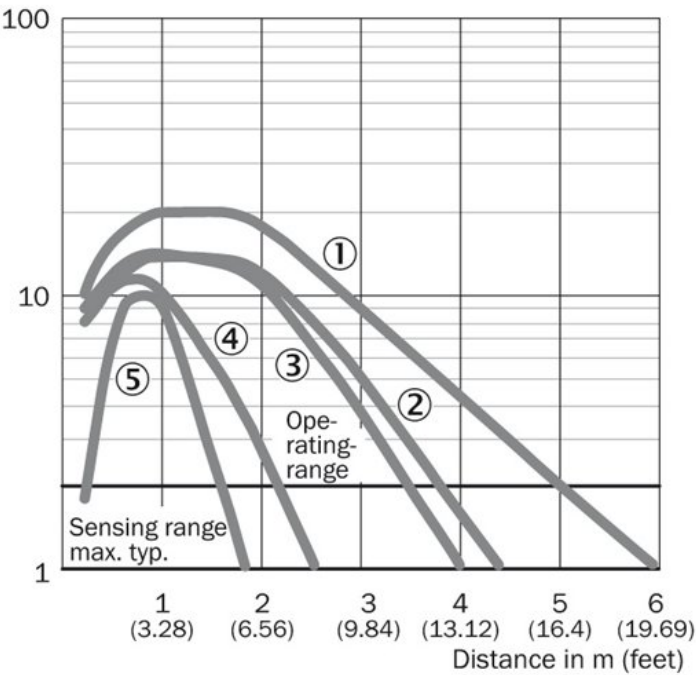
Adjustments possible



- |4| Status indicator LED green: power on
- |5| Status indicator LED, yellow: Status of received light beam

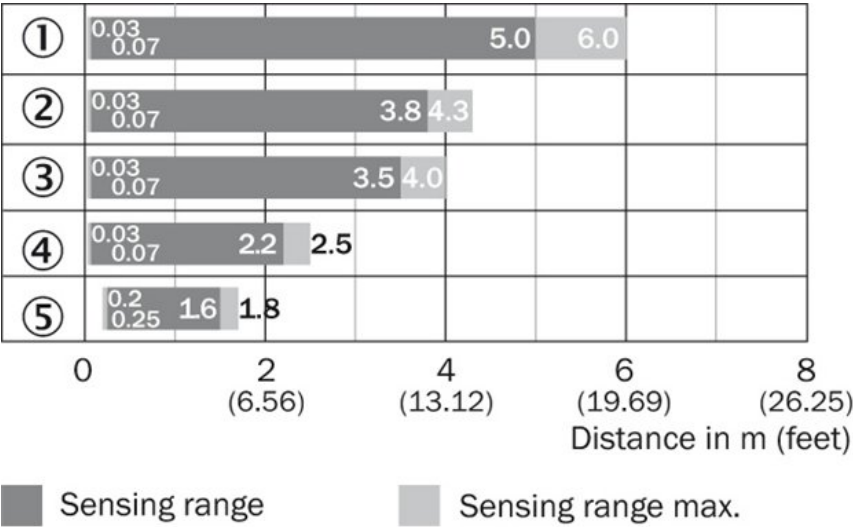
Characteristic curve

Operating reserve

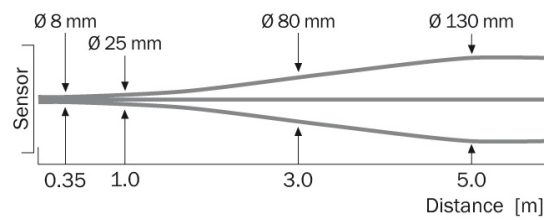


- |1| PL80A
- |2| PL40A
- |3| P250
- |4| PL20A
- |5| REF-IRF-56

Sensing range diagram



Light spot size



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