



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

GL6-F4311



Model Name > [GL6-F4311](#)
Part No. > [1066751](#)



Illustration may differ

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

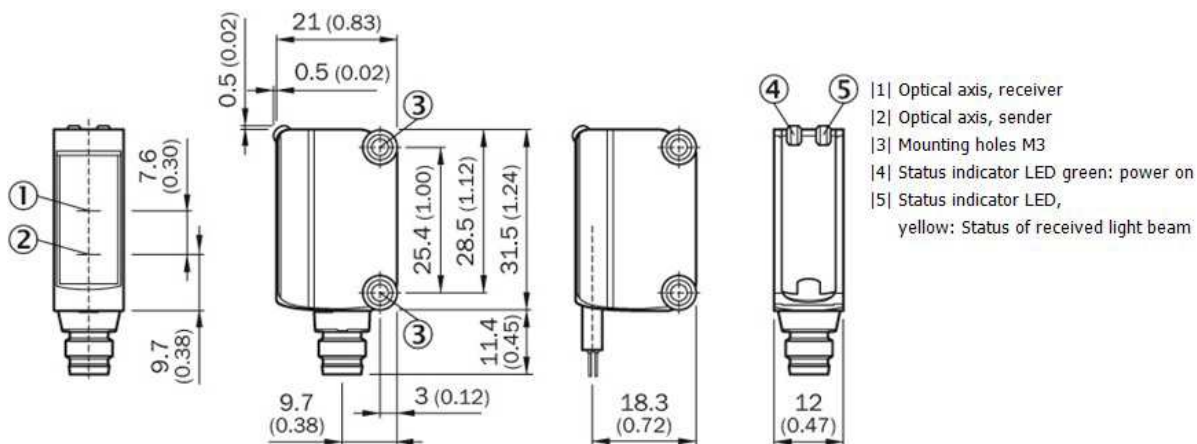
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	± 10 % ²⁾
Power consumption:	≤ 30 mA ³⁾
Output type:	PNP ⁴⁾
Output function:	Complementary

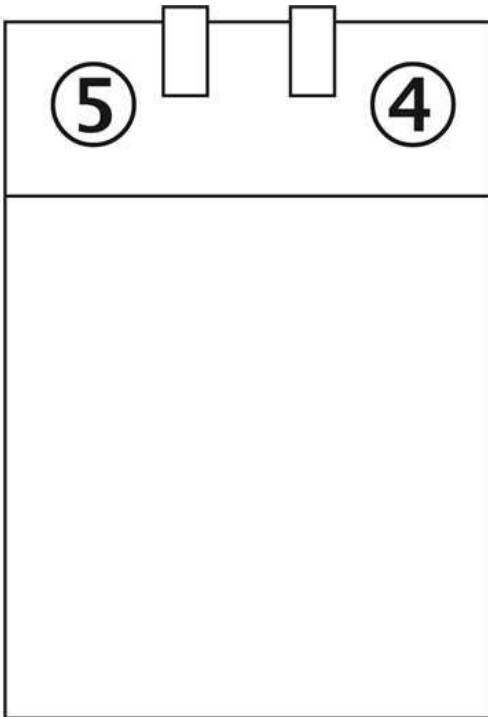
Switching mode:	Light/dark switching ⁵⁾
Output current I _{max} ·:	≤ 100 mA ⁶⁾
Response time:	< 625 μs ⁷⁾
Switching frequency:	1,000 Hz ⁸⁾
Electrical connection:	Connector M8, 4-pin ⁹⁾
Cable material:	PVC
Circuit protection:::	A, B, D ^{10) 11) 12)}
Protection class:	III
Weight:	60 g
Polarisation filter:	✓
Special device:	-
Optics material:	PMMA
Enclosure rating:	IP 67
Ambient operating temperature:	-25 °C ... +55 °C ¹³⁾
Ambient storage temperature:	-40 °C ... +70 °C
UL File No.:	NRKH.E348498 & NRKH7.E348498
Signal voltage PNP HIGH/LOW:	VS - (≤ 3 V)/approx. 0 V
Housing material:	ABS/PC, Plastic

1) Limit values, operation in short-circuit protected network max. 8 A ²⁾ May not exceed or fall short of V_S tolerances ³⁾ Without load ^{4) 5)} Pin 2/ Pin 4 swapped over
6) At V_S > 24 V, I_A max = 50 mA ⁷⁾ Signal transit time with resistive load ⁸⁾ With light/dark ratio 1:1 ⁹⁾ Do not bend below 0 °C ¹⁰⁾ A = V_S connections reverse-polarity protected ¹¹⁾ B = inputs and output reverse-polarity protected ¹²⁾ D = outputs overcurrent and short-circuit protected ¹³⁾ Temperature stability after adjustment +/- 10°C

Dimensional drawing

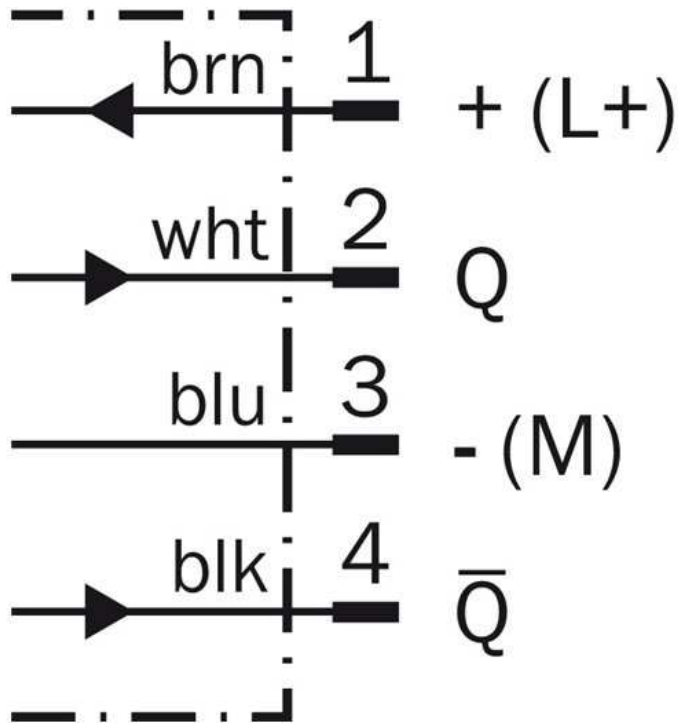


Adjustments possible



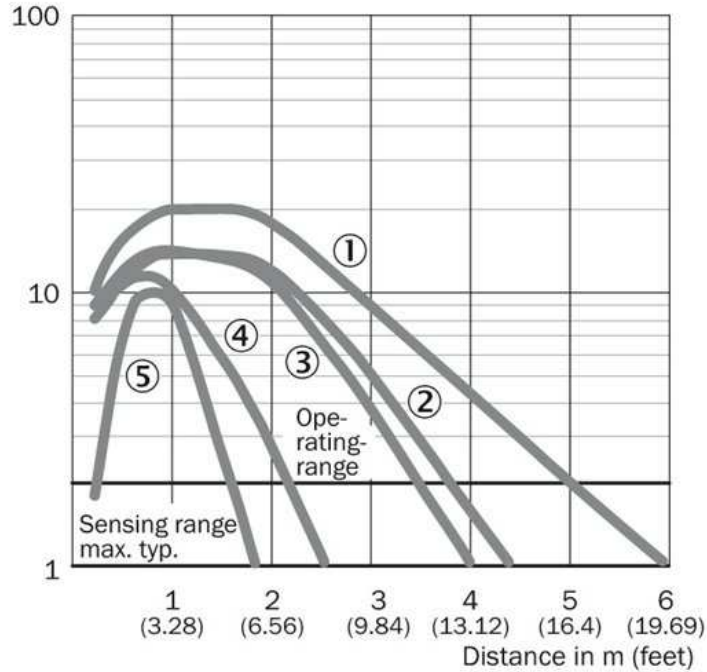
- |4| Status indicator LED green: power on
- |5| Status indicator LED,
yellow: Status of received light beam

Connection diagram



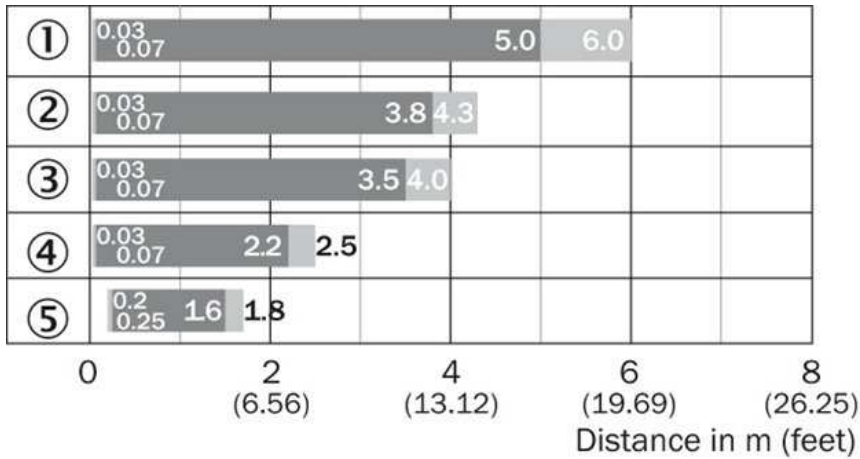
Characteristic curve

Operating reserve



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

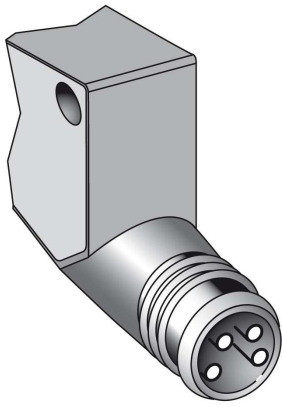
Sensing range diagram



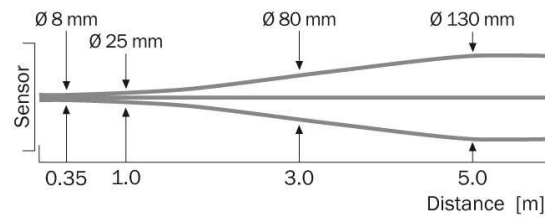
- |1| PL80A
- |2| PL40A
- |3| P250
- |4| PL20A
- |5| REF-IRF-56

■ Sensing range ■ Sensing range max.

Connection type



Light spot size



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