GS6-D4311

G6

MINIATURE PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

GS6-D4311 | G6
MINIATURE PHOTOELECTRIC SENSORS

Ordering information

Type	Part no.
GS6-D4311	2058059

Other models and accessories ➜ www.sick.com/G6

Illustration may differ

Detailed technical data

Features

Device type	Photoelectric sensors
Functional principle	Through-beam photoelectric sensor
Sensing range max.	0 m … 15 m
Sensing range	0 m … 10 m
Polarisation filters	No
Emitted beam	
Light source	PinPoint LED [1]
Type of light	Visible red light
Light spot size (distance)	Ø 375 mm (12 m)
Key LED figures	
Wave length	650 nm
Adjustment	None

[1] Average service life: 100,000 h at T_U = +25 °C.

Electrical data

Supply voltage U_B	10 V DC … 30 V DC [1]
Ripple	± 10 % [2]
Power consumption	30 mA [3]

[1] Limit values when operated in short-circuit protected network: max. 8 A.

[2] May not exceed or fall below U_v tolerances.

[3] Without load.

[4] At Uv > 24 V, IA max. = 50 mA.

[5] Signal transit time with resistive load.

[6] With light/dark ratio 1:1.

[7] A = V_S connections reverse-polarity protected.

[8] B = inputs and output reverse-polarity protected.

[9] D = outputs overcurrent and short-circuit protected.

Protection class	III
Digital output	
Signal voltage PNP HIGH/LOW	V_S - (≤ 3 V) / approx. 0 V
Output current $I_{max.}$	≤ 100 mA [4]
Response time	< 500 µs [5]
Switching frequency	1,000 Hz [6]
Circuit protection	A [7]
	B [8]
	D [9]

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[2] May not exceed or fall below U_v tolerances.

[3] Without load.

[4] At Uv > 24 V, IA max. = 50 mA.

[5] Signal transit time with resistive load.

[6] With light/dark ratio 1:1.

[7] A = V_S connections reverse-polarity protected.

[8] B = inputs and output reverse-polarity protected.

[9] D = outputs overcurrent and short-circuit protected.

Mechanical data

Housing	Rectangular
Dimensions (W x H x D)	12 mm x 31.5 mm x 21 mm
Connection	Male connector M8, 4-pin
Material	
Housing	Plastic, ABS/PC
Front screen	Plastic, PMMA
Weight	40 g

Ambient data

Enclosure rating	IP67
Ambient operating temperature	–25 °C ... +55 °C [1]
Ambient temperature, storage	–40 °C ... +70 °C
UL File No.	NRKH.E348498 & NRKH7.E348498

[1] Temperature stability following adjustment +/-10 °C.

Classifications

ECl@ss 5.0	27270901
ECl@ss 5.1.4	27270901
ECl@ss 6.0	27270901
ECl@ss 6.2	27270901
ECl@ss 7.0	27270901
ECl@ss 8.0	27270901
ECl@ss 8.1	27270901
ECl@ss 9.0	27270901
ECl@ss 10.0	27270901

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ECl@ss 11.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	EC002716
ETIM 7.0	EC002716
ETIM 8.0	EC002716
UNSPSC 16.0901	39121528

Connection type
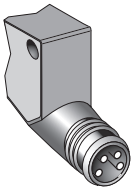
Connection diagram

Cd-071

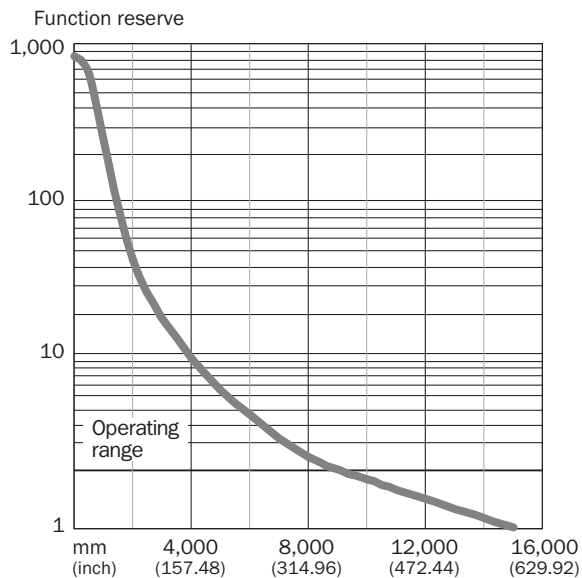| BN	1	+ (L+)
WH	2	not connected
BU	3	- (M)
BK	4	not connected
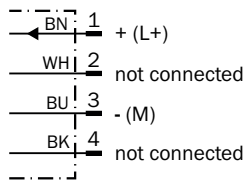
Characteristic curve

With GE6-P1111, GE6-N1111, GE6-P1111S63

Light spot size

Ø 7.5 mm Ø 130 mm   Ø 310 mm   Ø 480 mm
Ø 250 mm

Sensor

Distance [m]

0   4   8 10   15

Sensing range diagram

0	10.0	15.0

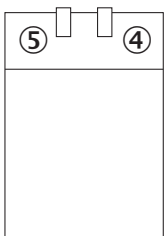0(m)   4.0   8.0   12.0   16.0
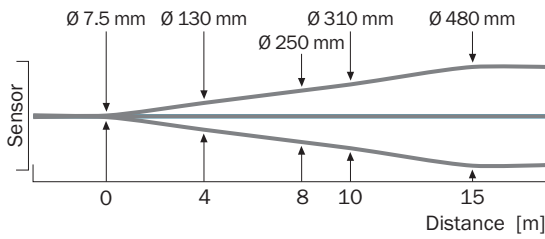
■ Sensing range   ■ Sensing range max.
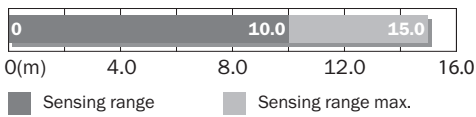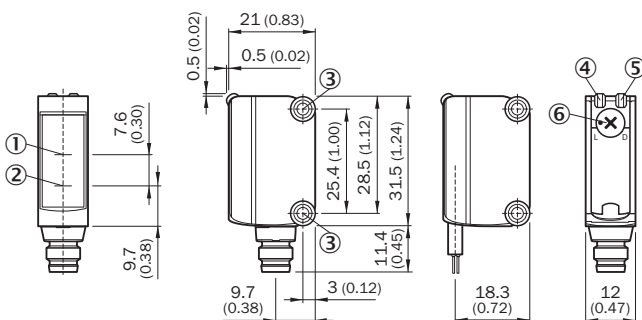
Note: when used with GE6-P4111S64

Adjustments

No adjustment possibility

⑤   ④

④ LED indicator green: Supply voltage active
⑤ LED indicator yellow: Status of received light beam

Dimensional drawing (Dimensions in mm (inch))

21 (0.83)
0.5 (0.02)
0.5 (0.02)
③
7.6 (0.30)
①
②
25.4 (1.00)
28.5 (1.12)
31.5 (1.24)
③
9.7 (0.38)
11.4 (0.45)
9.7 (0.38)
3 (0.12)
18.3 (0.72)
④ ⑤
⑥
12 (0.47)

① Optical axis, receiver
② Optical axis, sender
③ Mounting holes M3
④ LED indicator green: Supply voltage active
⑤ LED indicator yellow: Status of received light beam
⑥ Light/ dark rotary switch: L = light switching, D = dark switching

Recommended accessories

Other models and accessories ➜ www.sick.com/G6

	Brief description	Type	Part no.
Mounting brackets and plates			
	Stainless steel (1.4301)	BEF-WN-G6	2062909
Plug connectors and cables			
	Head A: female connector, M8, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF8U14-050VA3XLEAX	2095889
	Head A: male connector, M8, 4-pin, straight Head B: - Cable: unshielded	STE-0804-G	6037323

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is "Sensor Intelligence."

WORLDWIDE PRESENCE:

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