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DATA SHEET

GTE6-N1201S94

G6
Photoelectric sensors

SICK
Sensor Intelligence

Illustration may differ

PHOTOELECTRIC SENSORS

GTE6-N1201S94

ORDERING INFORMATION

Type	part no.
GTE6-N1201S94	1104698

Further device versions and accessories at www.sick.com/G6

DETAILED TECHNICAL DATA

FEATURES

Functional principle	Photoelectric proximity sensor
Functional principle detail	Energetic
Sensing range max.	0 mm ... 70 mm [1]
Sensing range	15 mm ... 30 mm [2]
Emitted beam	
Light source	PinPoint LED [3]
Type of light	Visible red light
Light spot size (distance)	2 mm x 50 mm (50 mm)
Key LED figures	
Wave length	650 nm
Adjustment	None

[1] Object with 90% remission (based on standard white, DIN 5033).

[2] Optimal.

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

ELECTRONICS

Supply voltage U_B	10 V DC ... 30 V DC [1]
Ripple	< 5 V_{pp} [2]
Current consumption	30 mA [3]
Protection class	III
Digital output	
Type	NPN
Switching mode	Light/dark switching
Output current $I_{max.}$	≤ 100 mA [4]
Response time	< 0.5 ms [5]
Switching frequency	1,000 Hz [6]
Circuit protection	A [7] B [8] C [9]

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

[2] May not fall below or exceed 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] C = interference suppression.

MECHANICS

Housing	Rectangular
Dimensions (W x H x D)	12 mm x 31.5 mm x 21 mm
Connection	Cable, 3-wire, 2 m [1]
Connection detail	
Conductor size	0.14 mm²
Length of cable (L)	2 m [1]
Material	
Housing	Plastic, ABS/PC
Front screen	Plastic, PMMA
Cable	Plastic, PVC
Weight	60 g

[1] Do not bend below 0 °C.

AMBIENT DATA

Enclosure rating	IP67
Ambient operating temperature	–25 °C ... +55 °C [1]
Ambient temperature, storage	–40 °C ... +70 °C

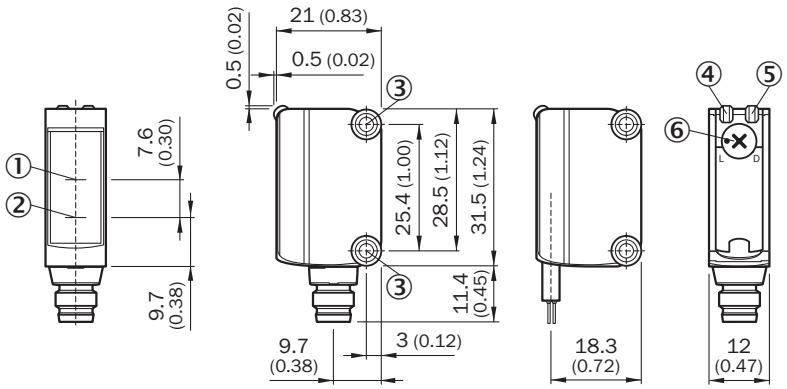
[1] Temperature stability following adjustment +/-10 °C.

CERTIFICATES

EU declaration of conformity	✓

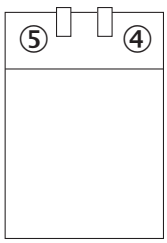
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
cULus certificate	✓
Photobiological safety (DIN EN 62471) certificate	✓

DIMENSIONAL DRAWING



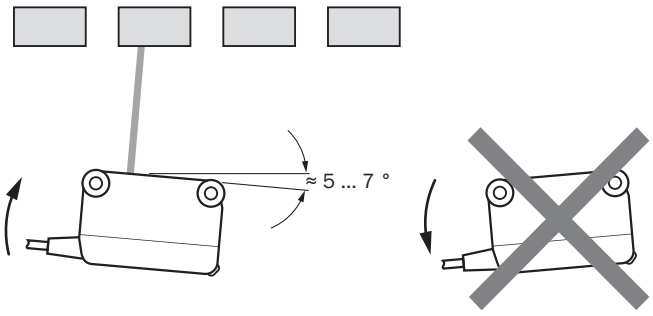
Dimensions in mm (inch)
① Optical axis, receiver
② Optical axis, sender
③ Mounting holes M3
④ LED indicator green: Supply voltage active
⑤ LED indicator yellow: Status of received light beam
⑥ Light/ dark rotary switch: L = light switching, D = dark switching

ADJUSTMENTS NO ADJUSTMENT POSSIBILITY

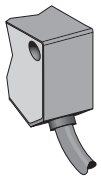


④ LED indicator green: Supply voltage active
⑤ LED indicator yellow: Status of received light beam

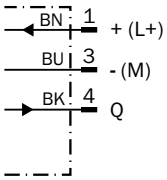
INSTALLATION NOTE MOUNTING



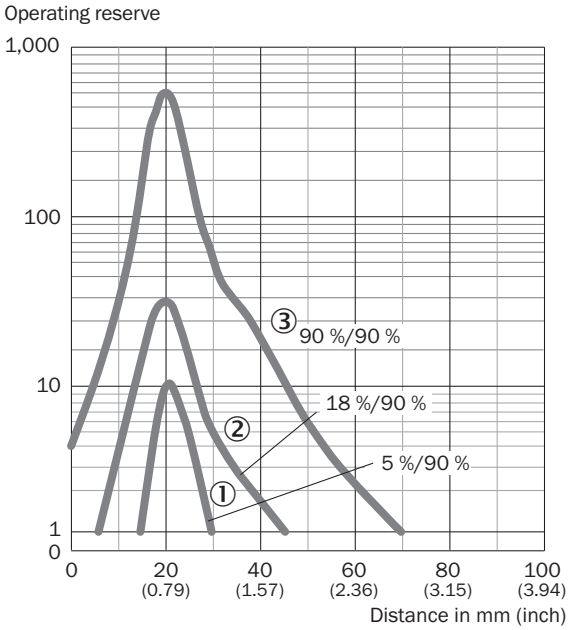
CONNECTION TYPE



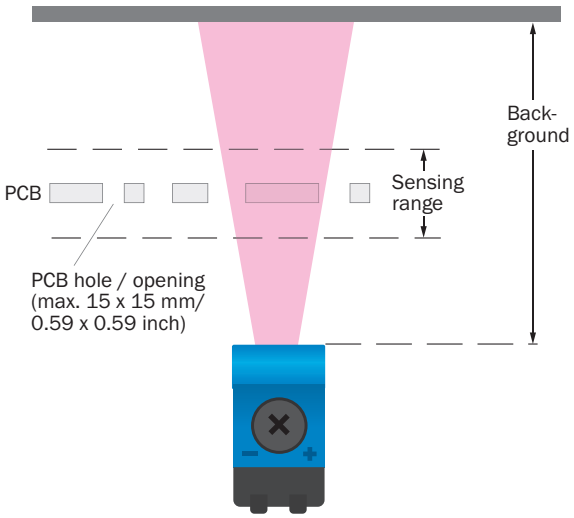
CONNECTION DIAGRAM CD-045



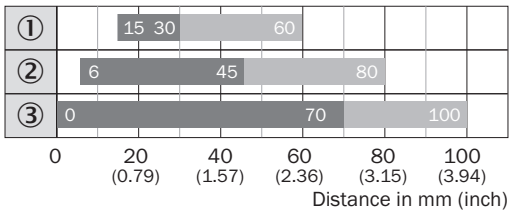
CHARACTERISTIC CURVE



LIGHT SPOT SIZE



SENSING RANGE DIAGRAM



Sensing range Sensing range max.

① Sensing range to black, 5% remission factor
② Sensing range on gray, 18% remission factor
③ Sensing range on white, 90% remission factor

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/1104698

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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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