GSE6-P0121S48

G6

MINIATURE PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

Ordering information

Type	Part no.
GSE6-P0121S48	1070054

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

Illustration may differ

Detailed technical data

Features

Functional principle	Through-beam photoelectric sensor
Sensing range max.	0 m ... 14.5 m
Sensing range	0 m ... 10.6 m
Polarisation filters	No
Emitted beam	
Light source	LED [1]
Type of light	Infrared light
Key LED figures	
Wave length	850 nm
Adjustment	None
Part number of individual components	2076406 GS6-D0321S48 2076408 GE6-P0121S48

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

Electronics

Supply voltage U_B	10 V DC ... 30 V DC [1]
Ripple	± 10 % [2]
Current consumption	30 mA [3]
Protection class	III
Digital output	
Type	PNP

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

Switching mode	Light/dark switching
Switching mode selector	Selectable via light/dark selector
Signal voltage PNP HIGH/LOW	$V_S - (\leq 3\ V)$ / approx. 0 V
Output current $I_{max.}$	$\leq 100\ mA$ [4]
Response time	$< 500\ \mu s$ [5]
Switching frequency	1,000 Hz [6]
Circuit protection	A [7] B [8] D [9]

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Mechanics

Housing	Rectangular
Dimensions (W x H x D)	12 mm x 31.5 mm x 21 mm
Connection	Cable with M12 male connector, 4-pin [1]
Connection detail	
Length of cable (L)	500 mm [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	$-25\ °C \dots +55\ °C$ [1]
Ambient temperature, storage	$-40\ °C \dots +70\ °C$
UL File No.	NRKH.E348498 & NRKH7.E348498

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

Classifications

ECLASS 5.0	27270901
ECLASS 5.1.4	27270901
ECLASS 6.0	27270901
ECLASS 6.2	27270901
ECLASS 7.0	27270901

| ECLASS 8.0	27270901
ECLASS 8.1	27270901
ECLASS 9.0	27270901
ECLASS 10.0	27270901
ECLASS 11.0	27270901
ECLASS 12.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	EC002716
ETIM 7.0	EC002716
ETIM 8.0	EC002716
UNSPSC 16.0901	39121528

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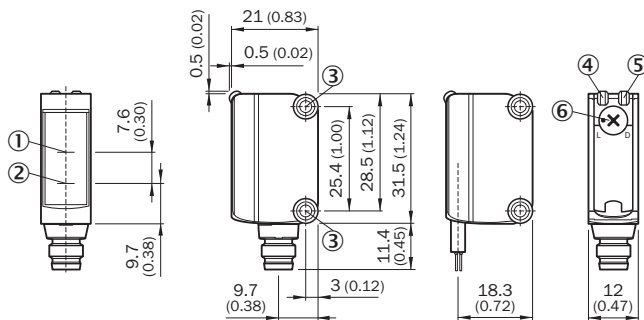
① Optical axis, receiver
② Optical axis, sender
③ Mounting holes M3
④ LED indicator green: Supply voltage active
⑤ LED indicator yellow: Status of received light beam
⑥ Light/ dark rotary switch: L = light switching, D = dark switching

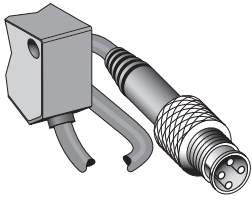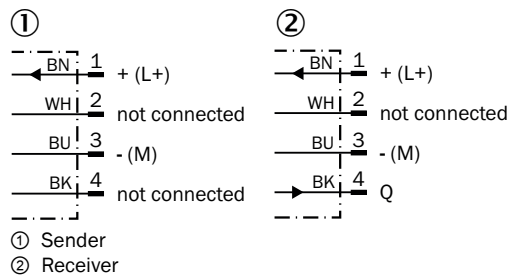## Adjustments

No adjustment possibility
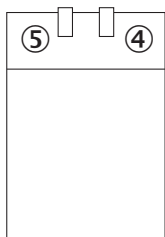
④ LED indicator green: Supply voltage active
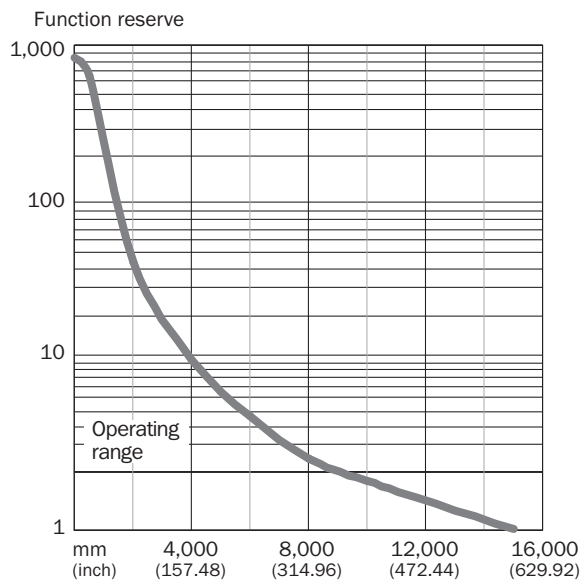⑤ LED indicator yellow: Status of received light beam
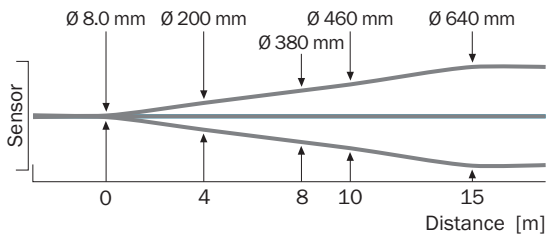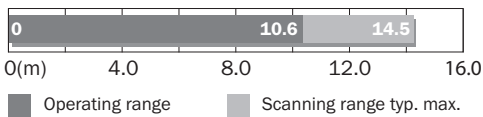
Connection type

Connection diagram

Cd-057

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

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

① Sender
② Receiver

Characteristic curve

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

Function reserve

| | mm (inch) | 4,000 (157.48) | 8,000 (314.96) | 12,000 (472.44) | 16,000 (629.92) |

Operating range

Light spot size

Ø 8.0 mm Ø 200 mm   Ø 460 mm   Ø 640 mm
Ø 380 mm

Sensor

0   4   8 10   15

Distance [m]

Sensing range diagram

0			10.6	14.5	
0(m)	4.0	8.0	12.0	16.0	

■ Operating range   ■ Scanning range typ. max.

Recommended accessories

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

	Brief description	Type	Part no.
Universal bar clamp systems			
	Clamp bar to fix G6 sensors on rods of 12 mm, clamp-on design up to 4 mm wall thickness, aluminum (clamp bar), stainless steel (bracket), clamp bar mounting and clamp function, mounting bracket, mounting hardware	BEF-KHS-IS12G6	2086865
Mounting brackets and plates			
	Stainless steel (1.4301)	BEF-WN-G6	2062909
Others			
	• **Connection type head A:** Female connector, M12, 4-pin, straight, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 5 m, 4-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones	YF2A14-050VB3XLEAX	2096235
	• **Connection type head A:** Male connector, M12, 4-pin, straight, A-coded • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** ≤ 0.75 mm²	STE-1204-G	6009932

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."

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