

GE6-P4021S74

**MINIATURE PHOTOELECTRIC SENSORS** 





# Ordering information

Туре	Part no.
GE6-P4021S74	2128869

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
Adjustment	None
Special features	Through-beam photoelectric sensor (receiver only)
Part number of individual components	2069042 GS6-D4321S31 2069043 GE6-P4121S31

# Safety-related parameters

MTTF <sub>D</sub>	1,002 years
DC <sub>avg</sub>	0 %

### Electrical data

Supply voltage U <sub>B</sub>	10 V DC 30 V DC <sup>1)</sup>
Ripple	± 10 % <sup>2)</sup>
Current consumption	30 mA <sup>3)</sup>
Protection class	III
Digital output	

 $<sup>^{1)}</sup>$  Limit values when operated in short-circuit protected network: max. 8 A.

 $<sup>^{2)}\,\</sup>mathrm{May}$  not exceed or fall below  $\mathrm{U}_{\mathrm{V}}$  tolerances.

<sup>3)</sup> Without load.

 $<sup>^{4)}</sup>$  At Uv > 24 V, IA max. = 50 mA.

 $<sup>^{5)}\,\</sup>mathrm{Signal}$  transit time with resistive load.

<sup>6)</sup> With light/dark ratio 1:1.

 $<sup>^{7)}</sup>$  A = V<sub>S</sub> connections reverse-polarity protected.

 $<sup>^{8)}</sup>$  B = inputs and output reverse-polarity protected.

<sup>9)</sup> D = outputs overcurrent and short-circuit protected.

Туре	PNP
Switching mode	Light/dark switching
Switching mode selector	Selectable via light/dark selector
Signal voltage PNP HIGH/LOW	$V_S$ - ( $\leq 3 \text{ V}$ ) / approx. 0 V
Output current I <sub>max.</sub>	≤ 100 mA <sup>4)</sup>
Response time	< 500 μs <sup>5)</sup>
Switching frequency	1,000 Hz <sup>6)</sup>
Circuit protection	A <sup>7)</sup> B <sup>8)</sup> D <sup>9)</sup>
Special feature	Receiver

 $<sup>^{1)}\,\</sup>mathrm{Limit}$  values when operated in short-circuit protected network: max. 8 A.

#### 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	15 g

#### Ambient data

Enclosure rating	IP67
Ambient operating temperature	-25 °C +55 °C <sup>1)</sup>
Ambient temperature, storage	-40 °C +70 °C
UL File No.	NRKH.E348498 & NRKH7.E348498

 $<sup>^{1)}</sup>$  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

 $<sup>^{2)}</sup>$  May not exceed or fall below  $\mathrm{U}_{\mathrm{V}}$  tolerances.

<sup>3)</sup> Without load.

 $<sup>^{4)}</sup>$  At Uv > 24 V, IA max. = 50 mA.

<sup>&</sup>lt;sup>5)</sup> Signal transit time with resistive load.

<sup>6)</sup> With light/dark ratio 1:1.

 $<sup>^{7)}</sup>$  A = V<sub>S</sub> connections reverse-polarity protected.

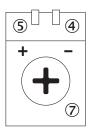
<sup>8)</sup> B = inputs and output reverse-polarity protected.

 $<sup>^{9)}</sup>$  D = outputs overcurrent and short-circuit protected.

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

# Adjustments

Adjustment possibility



- LED indicator green: Supply voltage active
   LED indicator yellow: Status of received light beam
- ⑦ Sensitivity control: potentiometer

# Connection type

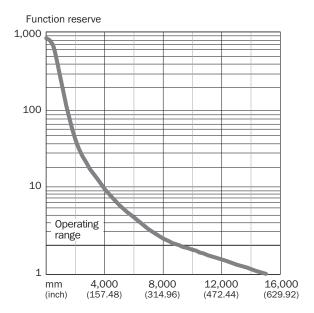


# Connection diagram

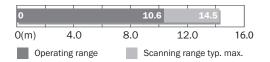
Cd-067

#### Characteristic curve

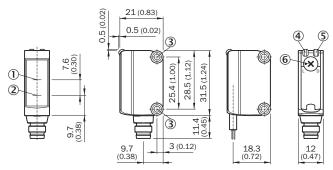
### With GS6-D4321S31, GS6-D4321S75



### Sensing range diagram



# Dimensional drawing (Dimensions in mm (inch))



- ① Optical axis, receiver
- ② Optical axis, sender
- 3 Mounting holes M3
- 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	Туре	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

# 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:**

Contacts and other locations -www.sick.com

