

GL6-F7411V G6

MINIATURE PHOTOELECTRIC SENSORS





Ordering information

Туре	Part no.
GL6-F7411V	1084105

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

Illustration may differ



Detailed technical data

Features

Franchicus I naineimie	Dhata dastwia yatua waflasti ya gamay
Functional principle	Photoelectric retro-reflective sensor
Functional principle detail	Dual lens
Sensing range max.	0.03 m 6 m ¹⁾
Sensing range	0.07 m 5 m ¹⁾
Polarisation filters	Yes
Emitted beam	
Light source	PinPoint LED ²⁾
Type of light	Visible red light
Light spot size (distance)	Ø 8 mm (350 mm)
Key LED figures	
Wave length	650 nm
Adjustment	Potentiometer, 270°
Special applications	Hygienic and washdown zones

¹⁾ Reflector PL80A.

Safety-related parameters

MTTF _D	1,617 years
DC _{avg}	0 %
T _M (mission time)	20 years

 $^{^{2)}}$ Average service life: 100,000 h at TU = +25 °C.

Electrical data

Supply voltage U _B	10 V DC 30 V DC ¹⁾
Ripple	± 10 % ²⁾
Current consumption	30 mA ³⁾
Protection class	III
Digital output	
Туре	PNP
Switching mode	Light/dark switching
Signal voltage PNP HIGH/LOW	V_S - ($\leq 3 \text{ V}$) / approx. 0 V
Output current I _{max.}	\leq 100 mA $^{4)}$
Response time	< 625 μs ⁵⁾
Switching frequency	1,000 Hz ⁶⁾
Output function	Complementary switching output
Circuit protection	A ⁷⁾ B ⁸⁾ D ⁹⁾

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

Mechanical data

Housing	Rectangular
Dimensions (W x H x D)	15 mm x 44 mm x 22 mm
Connection	Cable with M12 male connector, 4-pin ¹⁾
Connection detail	
Length of cable (L)	300 mm ¹⁾
Material	
Housing	Stainless steel, Stainless steel V4A (1.4404, 316L)
Front screen	Plastic, PMMA
Cable	PVC
Weight	70 g

 $^{^{1)}}$ Do not bend below 0 °C.

Ambient data

Enclosure rating	IP67 IP69K ¹⁾
Ambient operating temperature	-25 °C +55 °C ²⁾

 $^{^{1)}}$ According to ISO 20653:2013-03.

 $^{^{2)}\,\}mathrm{May}$ 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.

²⁾ Temperature stability following adjustment +/-10 °C.

Ambient temperature, storage	-30 °C +75 °C
UL File No.	NRKH.E348498 & NRKH7.E348498

¹⁾ According to ISO 20653:2013-03.

Classifications

ECLASS 5.0	27270902
ECLASS 5.1.4	27270902
ECLASS 6.0	27270902
ECLASS 6.2	27270902
ECLASS 7.0	27270902
ECLASS 8.0	27270902
ECLASS 8.1	27270902
ECLASS 9.0	27270902
ECLASS 10.0	27270902
ECLASS 11.0	27270902
ECLASS 12.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
ETIM 7.0	EC002717
ETIM 8.0	EC002717
UNSPSC 16.0901	39121528

Connection diagram

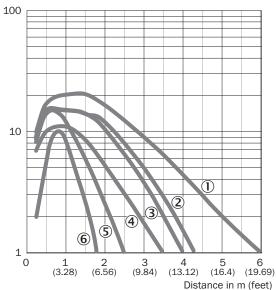
Cd-084

²⁾ Temperature stability following adjustment +/-10 °C.

Characteristic curve

GL6 Inox, Red, Standard

Function reserve

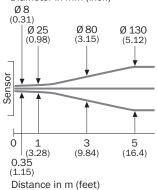


- ① Reflector PL80A
- ② Reflector PL40A
- 3 Reflector P250
- ④ Reflector P250 CHEM
- ⑤ Reflector PL20A
- ® Reflective tape REF-IRF-56

Light spot size

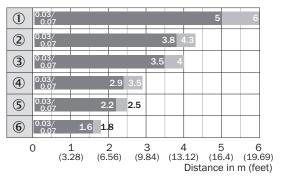
GL6 Inox, Red, Standard

Diameter in mm (inch)



Sensing range diagram

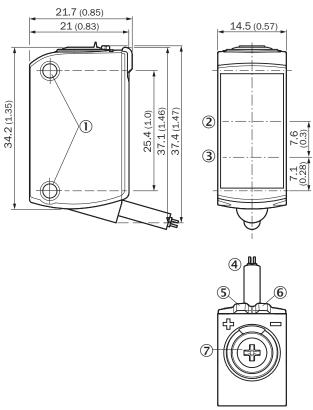
GL6 Inox, Red, Standard



- Sensing range
- Sensing range max.
- ① Reflector PL80A
- ② Reflector PL40A
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- ⑤ Reflector PL20A
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Dimensional drawing (Dimensions in mm (inch))

GTB6, GTE6, GL6, GSE6 Inox, cable (with male connector)



- ① M3 mounting hole
- ② Optical axis, receiver
- 3 Optical axis, sender
- ④ Connection
- ⑤ LED indicator yellow: Status of received light beam
- ⑥ LED indicator green: Supply voltage active
- ⑦ Potentiometer

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			
	Mounting bracket for wall mounting, stainless steel, mounting hardware included	BEF-W100-A	5311520
	Universal mounting bracket for reflectors, steel, zinc coated	BEF-WN-REFX	2064574

	Brief description	Туре	Part no.
Plug connecto	ors and cables		
	 Connection type head A: Female connector, M12, 4-pin, straight Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Connection systems: Flying leads Note: This product is generally resistant to chemical cleaning agents (see ECOLAB). Please do not use cleaning agents of any other Kind., Not resistant against lactic acid & hydrogen peroxide (H2O2) Application: Hygienic and washdown zones 	DOL-1204-G05MNI	6052615
Reflectors			
	Chemically resistant, screw connection, $52\ \text{mm}\ \text{x}\ 61\ \text{mm}$, plastic, Screw-on, $2\ \text{hole}$ mounting	P250 CHEM	5321097

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For us, that is "Sensor Intelligence."

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