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Product data sheet



FLG4-20012011

FLG

SWITCHING AUTOMATION LIGHT GRIDS

SICK
Sensor Intelligence.

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FLG4-20012011 | FLG

SWITCHING AUTOMATION LIGHT GRIDS



Illustration may differ

Ordering information

Type	Part no.
FLG4-20012011	6049135

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

Detailed technical data

Features

Device version	Close
Sensor principle	Sender/receiver
Minimum detectable object (MDO)	2 mm, dynamic: 4 mm 6 mm, static: 6 mm
Beam separation	4 mm
Detection height	120 mm
Output function	Light/dark switching adjustable by means of rotary switch

Mechanics/electronics

Wave length	880 nm
Supply voltage V_S	DC 18 V ... 30 V [1]
Ripple	< 10 %
Output current $I_{max.}$	≤ 100 mA
Off delay	0 s ... 5 s [2]
Initialization time	0.3 s
Switching output	PNP [3] NPN
Dimensions (W x H x D)	182 mm x 230 mm x 25 mm
Connection type	Male connector M12, 4-pin
Housing material	Aluminum, painted
Indication	LED
Enclosure rating	IP65
Circuit protection	U_V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression

[1] Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A.

[2] Adjustable.

[3] Q / $\bar{Q}$.

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Protection class	III
Weight	1.12 kg
Switching frequency	5,000 Hz

[1] Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A.
[2] Adjustable.
[3] Q / Q̄.

Performance

Detection area (W x H)	120 mm x 200 mm
Response time	< 0.1 ms

Ambient data

Shock resistance	EN 60068-2-27
Vibration resistance	EN 60068-2-6
EMC	EN 60947-5-2
Ambient light immunity	Sunlight: 10,000 lx
Ambient operating temperature	0 °C ... +60 °C [1]
Ambient temperature, storage	–20 °C ... +80 °C

[1] In static mode: constant temperature around teaching point will be assumed.

Classifications

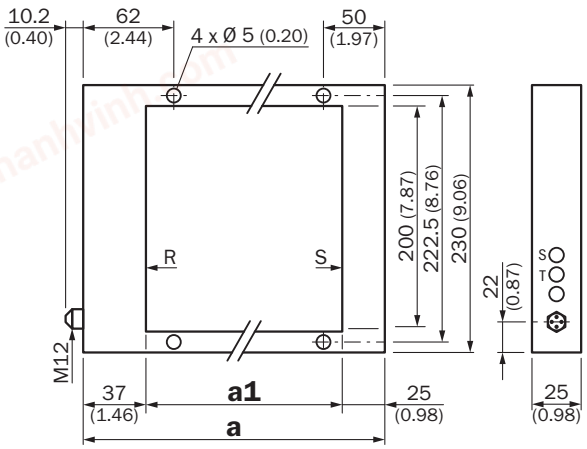
eCl@ss 5.0	27270910
eCl@ss 5.1.4	27270910
eCl@ss 6.0	27270910
eCl@ss 6.2	27270910
eCl@ss 7.0	27270910
eCl@ss 8.0	27270910
eCl@ss 8.1	27270910
eCl@ss 9.0	27270910
eCl@ss 10.0	27270910
eCl@ss 11.0	27270910
eCl@ss 12.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
UNSPSC 16.0901	39121528

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Dimensional drawing (Dimensions in mm (inch))

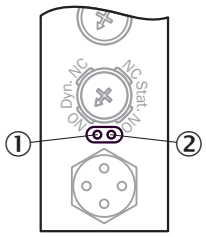
FLGx-200xxx1x



	a	a1
FLGx-200120xx	182 (7.17)	120 (4.72)
FLGx-200180xx	242 (9.53)	180 (7.09)
FLGx-200250xx	312 (12.28)	250 (9.84)

Adjustments

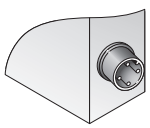
Display LED

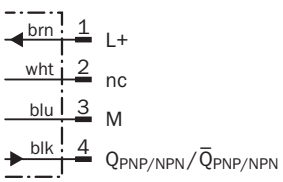


① Yellow LED: status output
② Red LED: error or button lock active (blinking)

Connection type and diagram

Connection type and diagram

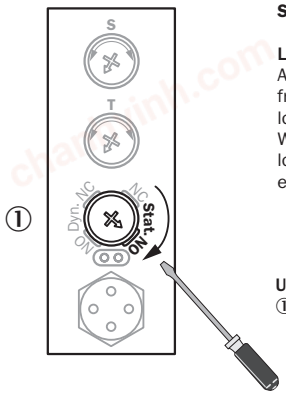




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Concept of operation

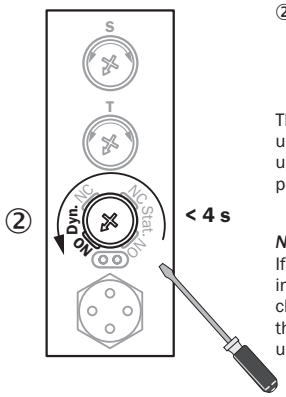
Setting the key lock



Setting key lock

Locking:
After the last setting, the frame waits 15 minutes then locks the potentiometer. When the potentiometers are locked, the red LED flashes every time you turn any button.

Unlocking:
① To unlock the potentiometers, turn the mode button on the "Stat. NO" position.



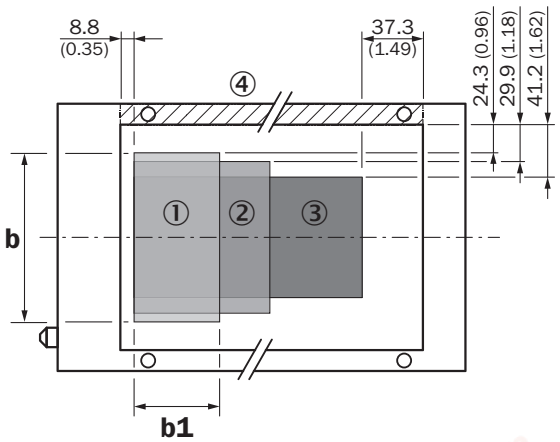
② Turn in less than 4 seconds, on the "Dyn. NO" position.

The potentiometers are then unlocked and the settings are updated with the current position of the potentiometers.

Notice:
If the mode button is already in the "Stat. NO" position, change mode previously and then apply the standard unlocking procedure.

Diagramm

Limited detection area



All dimensions in mm (inch)

④ Side is missing in open version

Dimensions in mm (inch)

	b	b1
① **FLG2-xxx120xx**	151.4 (5.96)	73.9 (2.91)
② **FLG2-xxx180xx**	140.2 (5.52)	133.9 (5.27)
③ **FLG2-xxx250xx**	117.6 (4.63)	203.9 (8.03)

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Recommended accessories

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

	Brief description	Type	Part no.
Plug connectors and cables			
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF2A14-050VB3XLEAX	2096235

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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.

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For us, that is "Sensor Intelligence."

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