



FLG4-20012011

FLG

SWITCHING AUTOMATION LIGHT GRIDS

SICK
Sensor Intelligence.



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} .

| | |
|----------------------------|----------|
| 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 |

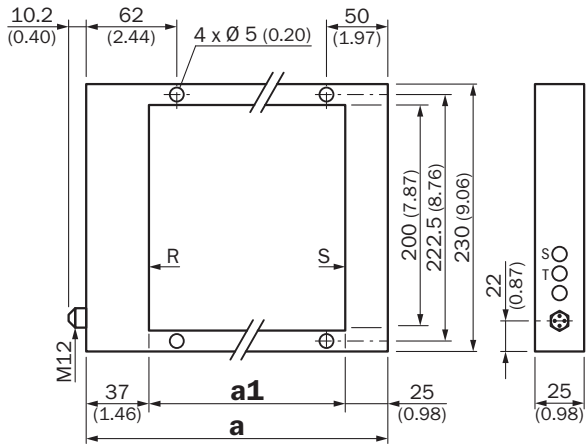
¹⁾ In static mode: constant temperature around teaching point will be assumed.

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 |

Dimensional drawing (Dimensions in mm (inch))

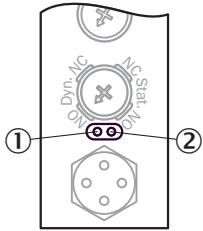
FLGx-200xxx1x



| | 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

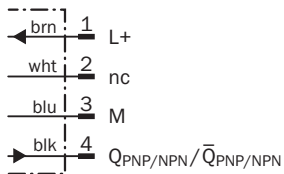
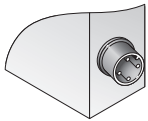
Display LED



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

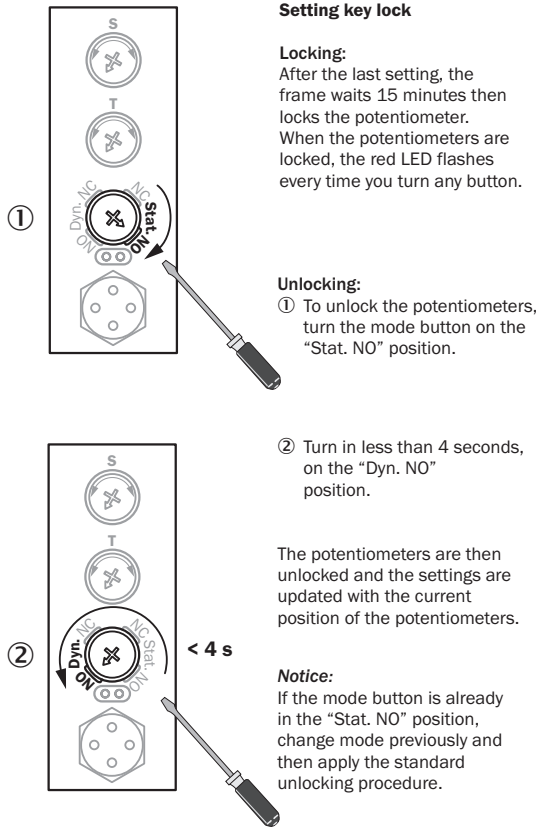
Connection type and diagram

Connection type and diagram



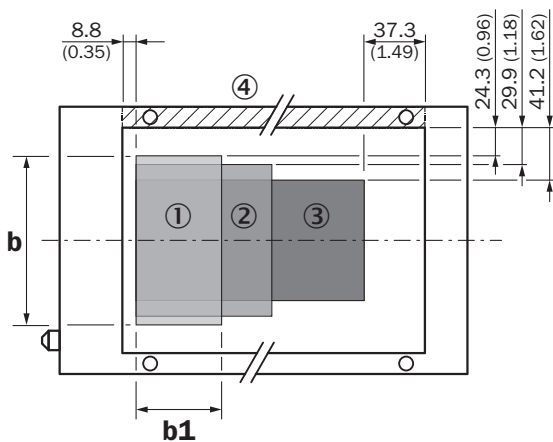
Concept of operation

Setting the key lock



Diagramm

Limited detection area



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) |

All dimensions in mm (inch)

④ Side is missing in open version

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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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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