Standard automation light grids
FLG

FLG4-20018011

![SICK Sensor Intelligence logo]

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Model Name **> FLG4-20018011**
Part No. **> 6049136**

Illustration may differ

At a glance

- Dynamic or static operating mode, switchable
- Simple adjustment
- Adjustable sensitivity
- Adjustable pushbutton lock
- Rugged metal housing
- Adjustable pulse lengthening
- Switchable NO/NC

Your benefits

- Simple installation and alignment due to sender and receiver in one housing
- The adjustable pushbutton lock protects against unwanted changes to parameters and manipulation during operation
- The device's adjustable sensitivity, operating mode and pulse lengthening features enable individual parameter changes to fit the requirements of your
- application
- Also available as an one side open version for simple integration into your application environment
- Large monitoring area, so only one device is required for monitoring small and large parts
- Using the sensitivity setting, it is possible to hide falling debris and only recognize objects that are relevant to detect

Features

Version:	Close
Technology:	Sender/receiver
Task [1]:	Switching light grid
Minimum detectable object (MDO):	≤dynamic: 4 mm ≤statiic: 6 mm
Beam separation:	4 mm
Output function:	Light/dark switching adjustable by means of rotary switch

[1] Dynamic or static function adjustable by means of rotary switch

Performance

Response time:	< 0.1 ms
Detection area (W x H):	180 mm x 200 mm

Interfaces

Connection type:	Connector M12, 4-pin

Mechanics/electronics

Wave length:	880 nm
Supply voltage Vs [1]:	DC 18 V ... 30 V
Power consumption [2]:	< 150 mA
Ripple:	< 10 %
Output current Imax.:	100 mA
Initialization time:	0.3 s
Dimensions (W x H x D):	242 mm x 230 mm x 25 mm
Housing material:	Aluminum, painted
Indication:	LED
Enclosure rating:	IP 65
Circuit protection:	Output Q short-circuit protected Interference suppression VS connections reverse-polarity protected
Weight:	1 kg
Switching frequency:	≤ 5,000 Hz
Off delay:	0 s ... 5 s [3]

[1] Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A   [2] Without load   [3] Adjustable

Ambient data

|	
Protection class:	III
EMC:	EN 60947-5-2
Ambient temperature [1]:	Operation: 0 ... 60 °C Storage: -20 ... 80 °C
Ambient light safety:	Sunlight: 10,000 lx
Vibration resistance:	(EN 60068-2-6)
Shock load:	EN 60068-2-27

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

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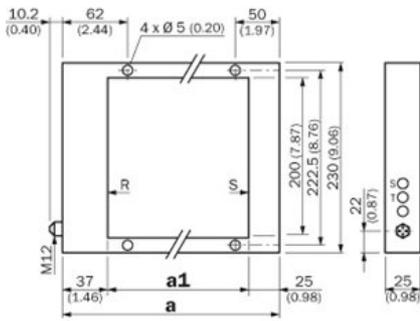
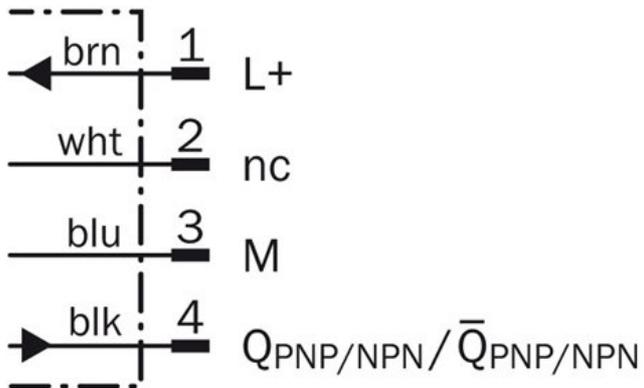|	a	a1
FLGx-200120xx	182 (7.17)	120 (4.72)
FLGx-200180xx	242 (9.53)	180 (7.09)
FLGx-200250xx	312 (12.28)	250 (9.84)

Adjustments
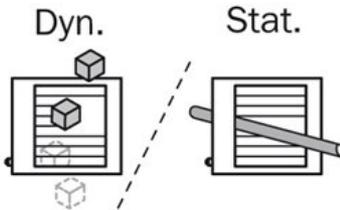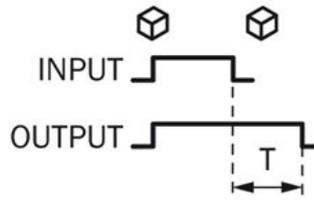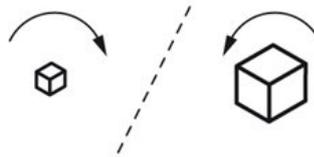
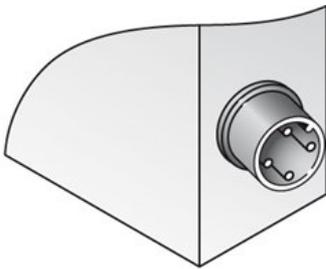**LED display**
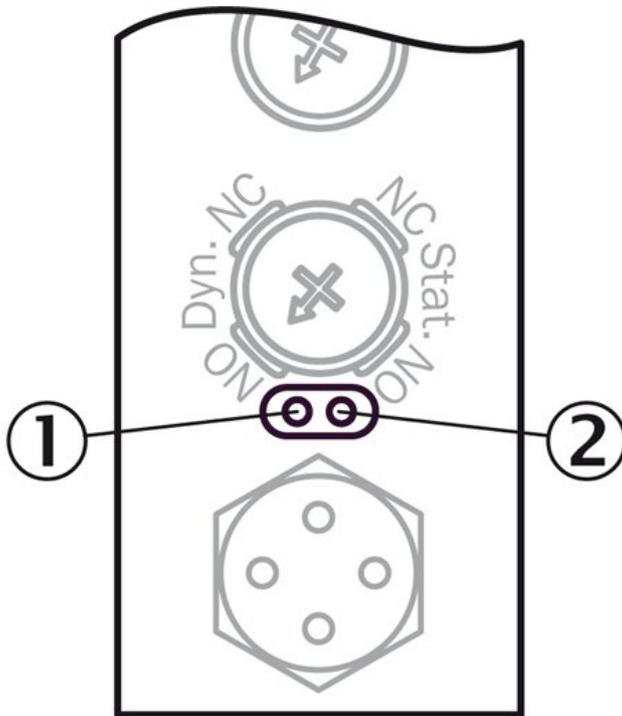
|1| Yellow LED: Output state
|2| Red LED: Error or key lock funktion active (blinking)

Connection type and diagram

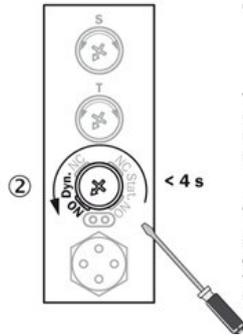|			
brn	1	L+	
wht	2	nc	
blu	3	M	
blk	4	$Q_{PNP/NPN}/\overline{Q}_{PNP/NPN}$	

Setting the key lock
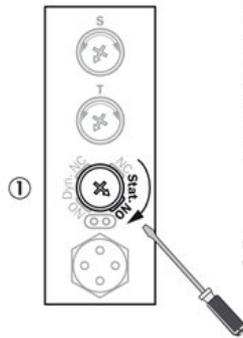
Setting key lock

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.

Limited detection area
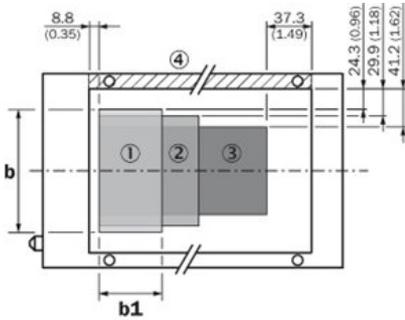
Dimensions in mm (inch)

|4| Side is missing in open version

	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)

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