



DATA SHEET

GLL170-N334

GLL170
Fiber-optic sensors

SICK Sensor Intelligence

FIBER-OPTIC SENSORS

GLL170-N334

ORDERING INFORMATION

Type	part no.
GLL170-N334	6063338

Further device versions and accessories at www.sick.com/GLL170



Illustration may differ



DETAILED TECHNICAL DATA

FEATURES

Device type	Fiber-optic amplifier	
Device type detail	Stand-alone	
Functional principle detail	Depending on the optical fiber cable used	
Sensing range max.	Depending on the optical fiber cable used	
Emitted beam	Light source	LED ¹⁾
	Type of light	Visible red light
Key LED figures	Normative reference	EN 62471:2008-09 IEC 62471:2006, modified
	LED risk group marking	Free group
	Wave length	632 nm
	Average service life	100,000 h at T _a = +25 °C
Adjustment	Potentiometer	For setting the sensing range/for setting the switching mode/for adjusting the switch-off delay
	Display	
	LED green	Operating indicator Static on: power on Dimmed in the range +/- 10 % of the switching threshold
	LED yellow	Status of digital output Permanently on: Switching output active Permanently off: Digital output not active

¹⁾ Average service life: 100,000 h at T_a = +25 °C.

SAFETY-RELATED PARAMETERS

MTTF _D	760 years
DC _{avg}	0 %
T _M (mission time)	20 years

ELECTRONICS

Supply voltage U _B	10 V DC ... 30 V DC ¹⁾																						
Ripple	≤ 10 % ²⁾																						
Current consumption	≤ 30 mA ³⁾																						
Protection class	III																						
Digital output	<table border="0"> <tr> <td>Number</td> <td>1</td> </tr> <tr> <td>Type</td> <td>NPN ⁴⁾</td> </tr> <tr> <td>Switching mode</td> <td>Light/dark switching</td> </tr> <tr> <td>Signal voltage PNP HIGH/LOW</td> <td>Approx. U_B-1.5 V / 0 V</td> </tr> <tr> <td>Signal voltage NPN HIGH/LOW</td> <td>Approx. U_B / < 1.5 V</td> </tr> <tr> <td>Output current I_{max.}</td> <td>≤ 100 mA</td> </tr> <tr> <td>Circuit protection outputs</td> <td>Reverse polarity protected Overcurrent protected Short-circuit protected</td> </tr> <tr> <td>Response time</td> <td>≤ 250 μs</td> </tr> <tr> <td>Switching frequency</td> <td>2 kHz</td> </tr> <tr> <td>Time functions</td> <td>Without time delay, off delay</td> </tr> <tr> <td>Delay time</td> <td>Selectable via rotary switch, 0 ms ... 40 ms</td> </tr> </table>	Number	1	Type	NPN ⁴⁾	Switching mode	Light/dark switching	Signal voltage PNP HIGH/LOW	Approx. U _B -1.5 V / 0 V	Signal voltage NPN HIGH/LOW	Approx. U _B / < 1.5 V	Output current I _{max.}	≤ 100 mA	Circuit protection outputs	Reverse polarity protected Overcurrent protected Short-circuit protected	Response time	≤ 250 μs	Switching frequency	2 kHz	Time functions	Without time delay, off delay	Delay time	Selectable via rotary switch, 0 ms ... 40 ms
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¹⁾ Limit values.²⁾ May not fall below or exceed U_B tolerances.³⁾ Without load.⁴⁾ Selectable via rotary switch.**MECHANICS**

Housing	Rectangular				
Dimensions (W x H x D)	10 mm x 31.7 mm x 72.5 mm				
Connection	Male connector M8, 4-pin				
Connection detail	<table border="0"> <tr> <td>Conductor size</td> <td>0.2 mm²</td> </tr> <tr> <td>Cable diameter</td> <td>Ø 3.8 mm</td> </tr> </table>	Conductor size	0.2 mm ²	Cable diameter	Ø 3.8 mm
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Material	<table border="0"> <tr> <td>Housing</td> <td>Plastic, PC/POM</td> </tr> <tr> <td>Cable</td> <td>Plastic, PVC</td> </tr> </table>	Housing	Plastic, PC/POM	Cable	Plastic, PVC
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Cable	Plastic, PVC				
Weight	19 g				
Maximum tightening torque of the fixing screws	0.5 Nm				

AMBIENT DATA

Enclosure rating	IP66 (EN 60529)
Ambient operating temperature	-25 °C ... +55 °C
Ambient temperature, storage	-40 °C ... +70 °C
Typ. Ambient light immunity	Artificial light: ≤ 5,000 lx Sunlight: ≤ 60,000 lx

FIBER-OPTIC SENSORS - GLL170-N334

Shock resistance	50 g, 11 ms (3 positive and 3 negative shocks along X, Y, Z axes, 18 total shocks (EN60068-2-27))
Vibration resistance	10 Hz ... 55 Hz (Amplitude 1 mm, 3 x 30 min (EN60068-2-6))
Air humidity	35 % ... 95 %, relative humidity (no condensation)
Electromagnetic compatibility (EMC)	EN 60947-5-2
UL File No.	NRKH2.E300503 & NRKH8.E300503
RoHS certificate	✓

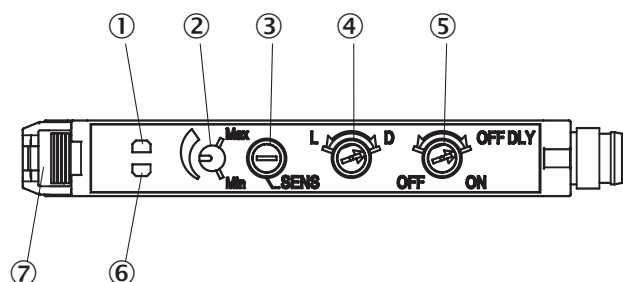
SMART TASK

Timer function	Deactivated Switch-on delay Off delay Impulse (one shot)
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CERTIFICATES

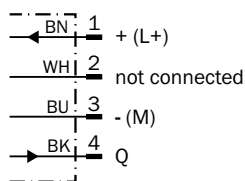
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
China Compulsory Product Certification (CCC) exempt	✓
cRUus certificate	✓

ADJUSTMENTS GLL170

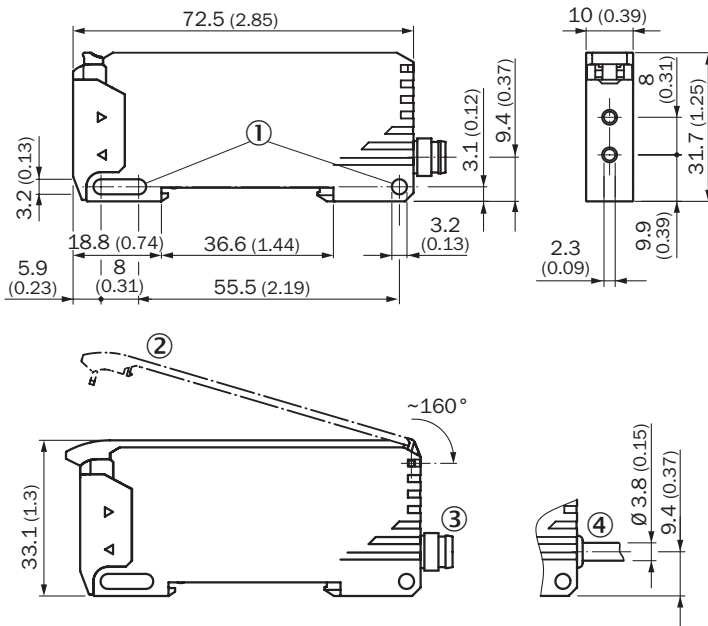


- ① LED indicator orange, lights up when switching output is active
- ② Sensitivity scale 230°
- ③ Sensitivity control: potentiometer, 8 turns
- ④ Selector switch: "L.ON" (light switching) / "D.ON" (dark switching)
- ⑤ OFF delay selector switch: "ON" (on) / "OFF" (off), 40 ms fixed
- ⑥ LED signal strength indicator green, lights up, when light received < 0.9 or > 1.1 (switching threshold = 1)
- ⑦ Locking the fiber-optic cables

CONNECTION DIAGRAM CD-066



DIMENSIONAL DRAWING



Dimensions in mm (inch)

- ① Mounting holes
- ② protective hood (optional), opens approx. 160°
- ③ Connector M8
- ④ cable

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/6063338



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SICK AT A GLANCE

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