



GLL170T-B434

GLL170

FIBER-OPTIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | Part no. |
|--------------|----------|
| GLL170T-B434 | 6063341 |

Other models and accessories → www.sick.com/GLL170

Detailed technical data

Features

| | |
|--|---|
| Device type | Fiber-optic sensors |
| Device type detail | Stand-alone |
| Dimensions (W x H x D) | 10 mm x 31.7 mm x 72.5 mm |
| Housing design (light emission) | Rectangular |
| Sensing range max. | 0 mm ... 400 mm, Proximity system ^{1) 2)} 0 mm ... 1,320 mm, Through-beam system ³⁾ |
| Sensing range | 0 mm ... 350 mm, Proximity system ^{1) 2)} 0 mm ... 1,100 mm, Through-beam system ³⁾ |
| Type of light | Visible red light |
| Light source | LED ⁴⁾ |
| Wave length | 632 nm |
| Adjustment | Teach-in button Cable Plus/minus button |
| Indication | Display |
| Display | Status LEDs, 4-digit digital display, display selectable between percentage value, absolute digit value and bar display / display of parameters |

¹⁾ Object with 90 % reflectance (referred to standard white, DIN 5033).

²⁾ LL3-DK06.

³⁾ LL3-TB02.

⁴⁾ Average service life: 100,000 h at T_U = +25 °C.

Mechanics/electronics

| | |
|--------------------------------------|--|
| Supply voltage | 10 V DC ... 30 V DC ¹⁾ |
| Ripple | ≤ 10 % ²⁾ |
| Current consumption | 40 mA ³⁾ |
| Switching output | PNP NPN Selectable via menu |
| Number of switching outputs | 1 |
| Switching mode | Light/dark switching |
| Switching mode selector | Selectable via menu |
| Response time | ≤ 250 µs, Selectable via menu ⁴⁾ ≤ 50 µs ⁴⁾ |
| Switching frequency | 2 kHz 10 kHz |
| Time functions | On delay Off delay One shot Without time delay |
| Delay time | Programmable, 0 ms ... 9,999 ms |
| Input | Teach-in input |
| Connection type | Male connector M8, 4-pin |
| Cable material | PVC |
| Conductor cross-section | 0.2 mm ² |
| Cable diameter | Ø 3.8 mm |
| Circuit protection | A ⁵⁾ B ⁶⁾ C ⁷⁾ D ⁸⁾ |
| Protection class | III |
| Weight | 22 g |
| Housing material | Plastic, PC/POM |
| Tightening torque, max. | 0.5 Nm |
| Enclosure rating | IP66 ⁹⁾ |
| Ambient operating temperature | -25 °C ... +55 °C |
| Ambient temperature, storage | -40 °C ... +70 °C |
| UL File No. | NRKH2.E300503 & NRKH8.E300503 |

¹⁾ Limit values.

²⁾ May not exceed or fall below U_V tolerances.

³⁾ Without load.

⁴⁾ Signal transit time with resistive load.

⁵⁾ A = V_S connections reverse-polarity protected.

⁶⁾ B = inputs and output reverse-polarity protected.

⁷⁾ C = interference suppression.

⁸⁾ D = outputs overcurrent and short-circuit protected.

⁹⁾ With correctly attached fibre-optic cable LL3.

Safety-related parameters

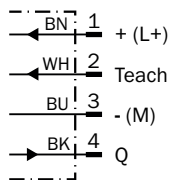
| | |
|-------------------------|-----------|
| MTTF_D | 300 years |
| DC_{avg} | 0 % |

Classifications

| | |
|-----------------------|----------|
| ECl@ss 5.0 | 27270905 |
| ECl@ss 5.1.4 | 27270905 |
| ECl@ss 6.0 | 27270905 |
| ECl@ss 6.2 | 27270905 |
| ECl@ss 7.0 | 27270905 |
| ECl@ss 8.0 | 27270905 |
| ECl@ss 8.1 | 27270905 |
| ECl@ss 9.0 | 27270905 |
| ECl@ss 10.0 | 27270905 |
| ECl@ss 11.0 | 27270905 |
| ETIM 5.0 | EC002651 |
| ETIM 6.0 | EC002651 |
| ETIM 7.0 | EC002651 |
| ETIM 8.0 | EC002651 |
| UNSPSC 16.0901 | 39121528 |

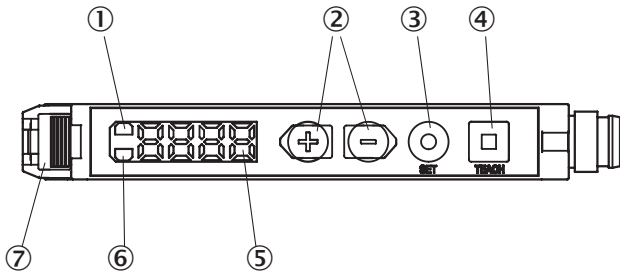
Connection diagram

Cd-092



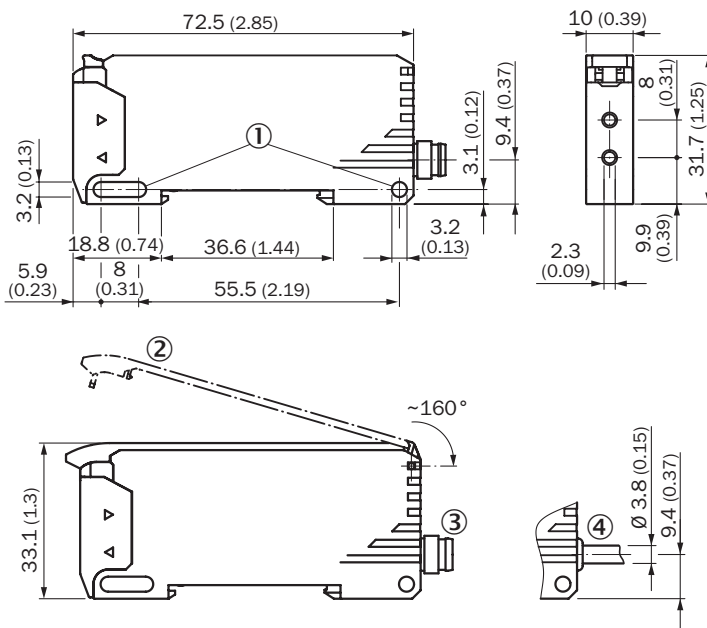
Adjustments

GLL170T



- ① LED indicator orange, lights up when switching output is active
- ② Plus/minus button
- ③ SET button
- ④ Teach-in button
- ⑤ Display
- ⑥ LED indicator green: Supply voltage active
- ⑦ Locking the fiber-optic cables







Dimensional drawing (Dimensions in mm (inch))



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

Recommended accessories

Other models and accessories → www.sick.com/GLL170

| | Brief description | Type | Part no. |
|---|---|--------------------|----------|
| Device protection (mechanical) | | | |
|  | Protective Hood for GLL170, opens approx. 160°, PC | BF-GLL170 | 5336263 |
| Mounting brackets and plates | | | |
|  | Mounting bracket, steel, zinc coated, without mounting hardware | BEF-WLL180 | 5325812 |
| Plug connectors and cables | | | |
|  | Head A: female connector, M8, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m | YF8U14-020VA3XLEAX | 2095888 |
| | Head A: female connector, M8, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m | YF8U14-050VA3XLEAX | 2095889 |
| | Head A: female connector, M8, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 10 m | YF8U14-100VA3XLEAX | 2095890 |
|  | Head A: female connector, M8, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m | YG8U14-020VA3XLEAX | 2095962 |
| | Head A: female connector, M8, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m | YG8U14-050VA3XLEAX | 2095963 |
| | Head A: female connector, M8, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 10 m | YG8U14-100VA3XLEAX | 2095964 |
|  | Head A: female connector, M8, 4-pin, straight Head B: - Cable: unshielded | DOS-0804-G | 6009974 |
| | Head A: female connector, M8, 4-pin, angled Head B: - Cable: unshielded | DOS-0804-W | 6009975 |
|  | Head A: male connector, M8, 4-pin, straight Head B: - Cable: unshielded | STE-0804-G | 6037323 |

| | Brief description | Type | Part no. |
|--------|-------------------|----------|----------|
| Fibers | | | |
| | LL3-DB01 | LL3-DB01 | 5308074 |
| | LL3-DB02 | LL3-DB02 | 5308083 |
| | LL3-DC38 | LL3-DC38 | 5322472 |
| | LL3-DR11 | LL3-DR11 | 5326000 |
| | LL3-DT01 | LL3-DT01 | 5308076 |
| | LL3-DV05 | LL3-DV05 | 5322549 |
| | LL3-TB01 | LL3-TB01 | 5308050 |
| | LL3-TH08 | LL3-TH08 | 5325978 |
| | LL3-TS40 | LL3-TS40 | 5323971 |
| | LL3-TV05 | LL3-TV05 | 5322546 |
| | LL3-TX01 | LL3-TX01 | 5324173 |
| | LL3-TY01 | LL3-TY01 | 5308066 |

SICK AT A GLANCE

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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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