



fiber-optic sensors
WLL180T, Fiber-optic photoelectric sensor

WLL180T-P432



Model Name > [WLL180T-P432](#)
Part No. > [6039093](#)



At a glance

- Selectable response time up to 16 μ s
- Sensing range up to 20 m, sensing distance up to 1400 mm
- Bus-compatible with anti-interference
- 2 x 4-digit display
- Adjustable hysteresis
- Rotatable display screen
- High-resolution signal processing
- Programmable time delays

Your benefits

- Reliable, rapid process detection, even under the most difficult ambient conditions, such as dust, spray or mist
- Easy commissioning and product changeover due to external teach-in
- Cross-talk is eliminated when utilizing bus configuration option
- Quick, easy setup and adjustment due to an intuitive operating menu
- Flexible parameter adjustment due to high-resolution signal processing. Hysteresis and time delays can be adapted to suit the application, e.g., when detecting tiny or transparent objects
- Easy-to-read display, even under difficult installation conditions



Features

Device type:	Stand-alone
Dimensions (W x H x D):	10.5 mm x 34.6 mm x 71.9 mm
Sensing range max.:::	0 m ... 20 m, through-beam system ^{1) 2)}
Sensing range:::	0,5) 18) m, through-beam system, 0 mm ... 1,400 mm, proximity system ³⁾
Light source:	LED ⁷⁾
Type of light:	Visible red light
Wave length:	650 nm
Sensitivity adjustment:	Teach-in button cable +/- increment button, manual
Adjustment of operating distance:	Cable, +/- increment button, manual, Teach-in button
Teach-in:	Menu-controlled
Time type:	Without time delay time delay off switch on delay ON and OFF delay one shot

Delay time:	Programmable: 0 ... 9,999 ms
Indication:	Display
Sensor/detection principle:	Fiber-optic photoelectric sensor
Housing design (light emission):	Rectangular
Display:	LED status display/2x 4-character digital dual displays, Set value (green indicator) and actual value (red indicator) are displayed simultaneously, display of parameters

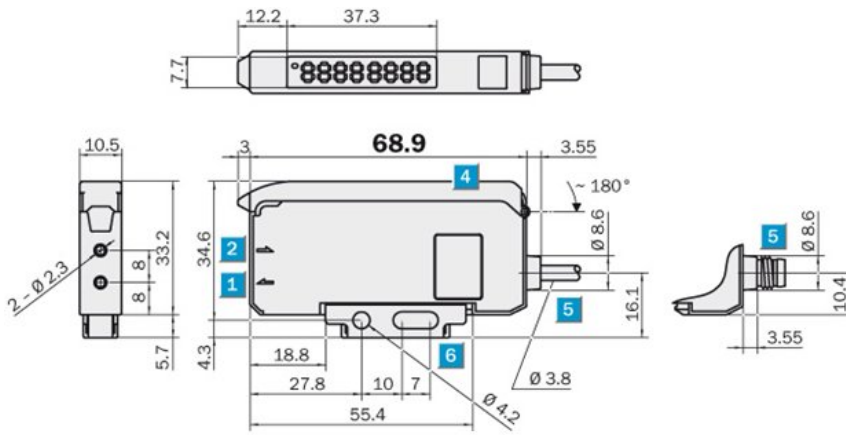
1) 5) Sensing range with 8 ms response time. Scanning range reduction with shorter response time (see tables LL3/WLL180T) 2) 6) LL3-TX01 3) Objects to be sensed with 90% reflectivity (based on DIN 5033 white standard). sensing distance with 8 ms response time. sensing distance reduction with shorter response time (see tables LL3/WLL180T) 4) LL3-DK06 7) Average service life 100,000 h at Ta = +25 °C

Mechanics/electronics

Enclosure rating:	IP 50 ¹⁾
Supply voltage:	12 V DC ... 24 V DC ²⁾
Ripple:	≤ 10 % ³⁾
Power consumption:	≤ 50 mA ⁴⁾
Switching output:	PNP, Light/dark-switching, manually selectable, open collector
Output current I _{max} :	≤ 100 mA
Response time:	≤ 2 ms ≤ 8 ms ≤ 16 μs ≤ 70 μs ⁵⁾ ≤ 250 μs
Switching frequency:	31.2 kHz 7.1 kHz 2 kHz 250 Hz 62.5 Hz
Connection type:	Cable, 4-wire, 2 m ⁶⁾
Cable material:	PVC
Conductor cross-section:	0.2 mm ²
Protection class:	III
Circuit protection:::	A, B, C, D ^{7) 8) 9) 10)}
Special device:	0
Housing material:	ABS/PC
Ambient operating temperature:	-25 °C ... 55 °C
Ambient storage temperature:	-40 °C ... 70 °C
Angle of dispersion:	Ca. 65 ° ¹¹⁾

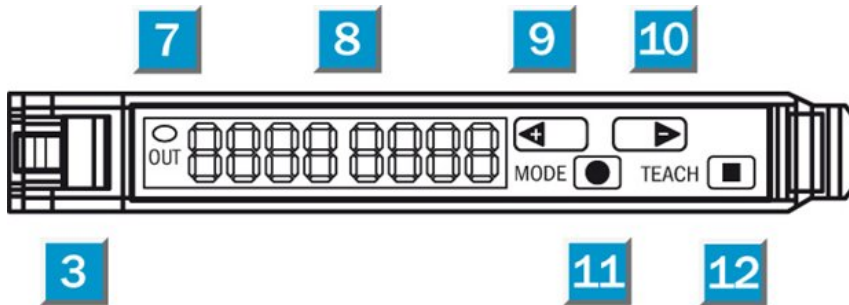
1) With correctly attached fibre-optic cable LL3 and closed protection hood ²⁾ +/- 10% ³⁾ May not exceed or fall short of V ⁴⁾ Without load ⁵⁾ Selectable ⁶⁾ Do not bend below 0 °C ⁷⁾ A = V_S connections reverse-polarity protected ⁸⁾ B = inputs and output reverse-polarity protected ⁹⁾ C = interference suppression ¹⁰⁾ D = outputs overcurrent and short-circuit protected ¹¹⁾ See LL3 fiber-optic data

Dimensional drawing



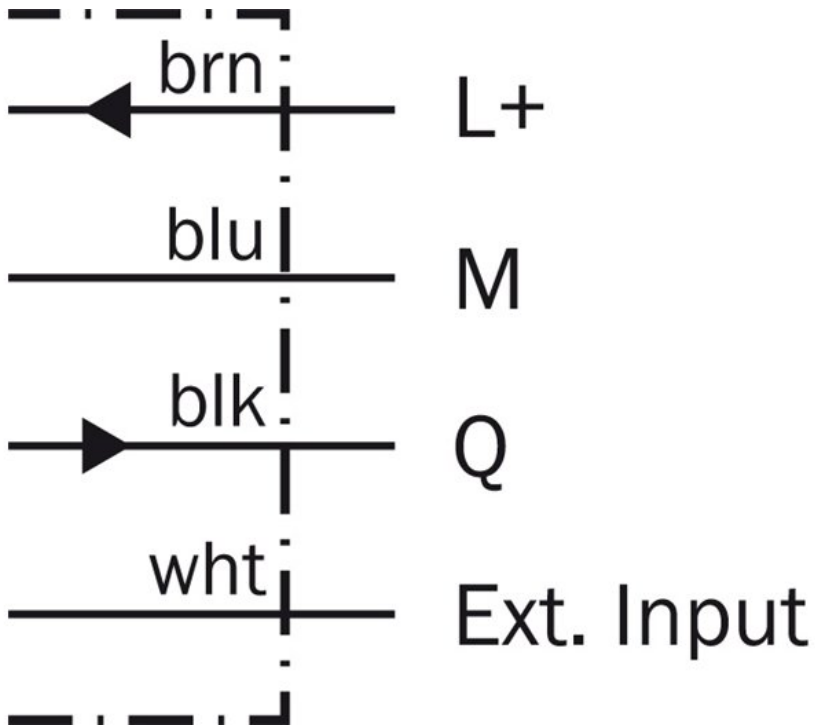
- [1] Sender LED, installation of LL3 fibre-optic cable (sender fibre)
- [2] Receiver, installation of LL3 fibre optic cable (receiver fibre)
- [3] Locking the fiber-optic cables
- [4] Protective hood, can be raised at both ends
- [5] Connection
- [6] Mounting bracket, included

Adjustments possible

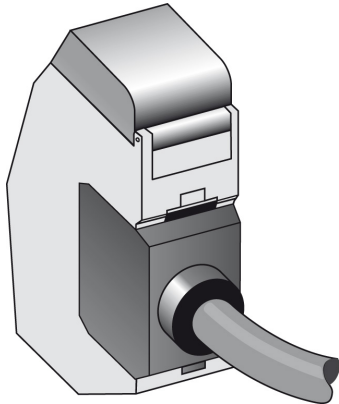


- [3] Locking the fiber-optic cables
- [7] LED indicator orange, lights up when switching output is active
- [8] Numeric display 2 x 4-digit; green: switching threshold, operating mode; red: actual value, Teach-in and function parameter
- [9] Step-button > (manual switching threshold: higher; or next function parameter)
- [10] Step-button < (manual switching threshold: lower; or previous function parameter)
- [11] Mode/Enter-button
- [12] "Teach-in" push button

Connection diagram



Connection type



Australia

Phone +61 3 9457 0600
1800 334 802 – tollfree
E-Mail sales@sick.com.au

Belgium/Luxembourg

Phone +32 (0)2 466 55 66
E-Mail info@sick.be

Brasil

Phone +55 11 3215-4900
E-Mail sac@sick.com.br

Canada

Phone +1(952) 941-6780
1 800-325-7425 – tollfree
E-Mail info@sickusa.com

Ceská Republika

Phone +420 2 57 91 18 50
E-Mail sick@sick.cz

China

Phone +86 4000 121 000
E-Mail info.china@sick.net.cn
Phone +852-2153 6300
E-Mail ghk@sick.com.hk

Danmark

Phone +45 45 82 64 00
E-Mail sick@sick.dk

Deutschland

Phone +49 211 5301-301
E-Mail kundenservice@sick.de

España

Phone +34 93 480 31 00
E-Mail info@sick.es

France

Phone +33 1 64 62 35 00
E-Mail info@sick.fr

Great Britain

Phone +44 (0)1727 831121
E-Mail info@sick.co.uk

India

Phone +91-22-4033 8333
E-Mail info@sick-india.com

Israel

Phone +972-4-6801000
E-Mail info@sick-sensors.com

Italia

Phone +39 02 27 43 41
E-Mail info@sick.it

Japan

Phone +81 (0)3 3358 1341
E-Mail support@sick.jp

Magyarország

Phone +36 1 371 2680
E-Mail office@sick.hu

Nederlands

Phone +31 (0)30 229 25 44
E-Mail info@sick.nl

Norge

Phone +47 67 81 50 00
E-Mail austefjord@sick.no

Österreich

Phone +43 (0)22 36 62 28 8-0
E-Mail office@sick.at

Polska

Phone +48 22 837 40 50
E-Mail info@sick.pl

România

Phone +40 356 171 120
E-Mail office@sick.ro

Russia

Phone +7-495-775-05-30
E-Mail info@sick.ru

Schweiz

Phone +41 41 619 29 39
E-Mail contact@sick.ch

Singapore

Phone +65 6744 3732
E-Mail admin@sicksgp.com.sg

Slovenija

Phone +386 (0)1-47 69 990
E-Mail office@sick.si

South Africa

Phone +27 11 472 3733
E-Mail info@sickautomation.co.za

South Korea

Phone +82 2 786 6321/4
E-Mail info@sickkorea.net

Suomi

Phone +358-9-25 15 800
E-Mail sick@sick.fi

Sverige

Phone +46 10 110 10 00
E-Mail info@sick.se

Taiwan

Phone +886-2-2375-6288
E-Mail sales@sick.com.tw

Türkiye

Phone +90 (216) 528 50 00
E-Mail info@sick.com.tr

United Arab Emirates

Phone +971 (0) 4 8865 878
E-Mail info@sick.ae

USA/México

Phone +1(952) 941-6780
1 800-325-7425 – tollfree
E-Mail info@sickusa.com

More representatives and agencies
at www.sick.com

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Sick manufacturer:

Other Similar products are found below :

[6-020-768](#) [CSM-WP11122P](#) [GRL18-P2437](#) [IM05-0B8NS-ZT1](#) [IM12-04BPS-ZC1](#) [KT6W-2P5116](#) [GRSE18-P2442](#) [GRSE18-P2447](#)
[GRTE18-P2412](#) [IM30-15NPS-ZW1](#) [IME08-02BPSZT0S](#) [IME08-2N5PSZT0K](#) [KTM-MB31111P](#) [VTE18-4N2212](#) [WTB11-2P2431](#)
[WLL180T-P434](#) [VTF18-4P1612](#) [VTF-18-4N1240](#) [VTE18-4P8240](#) [VS/VE18-4P3740](#) [WTE280-2P1131](#) [WTE11-2P2432](#) [WTB8-P2231](#)
[CM30-25NNP-EC1](#) [CM18-08BNP-EW1](#) [CM18-12NNP-EC1](#) [CM30-16BPP-EC1](#) [CM30-16BPP-EW1](#) [CM30-25NPP-EW1](#) [E100-](#)
[A2A22C05A](#) [GRL18-P1137](#) [KUP-0606-B](#) [KUP-0610-D](#) [P250H](#) [VT12T-2P410](#) [CQ28-10NPP-KW1](#) [DFS60B-S1PA10000](#) [GL6-P7111](#)
[GRL18-P1132](#) [KT5W-2P1116](#) [WSE11-2N2430](#) [WTB11-2P2461](#) [WSE4-3P2230](#) [WL2SG-2F3235](#) [IMB12-08NPPVC0S](#) [DBS36E-](#)
[BBAK02048](#) [DBS36E-BBEK00500](#) [DBS36E-S3AK01024](#) [DBS36E-S3AK02048](#) [DBS36E-S3EK00600](#)