



Photoelectric sensors
W280L-2 Long Range, Photoelectric proximity
sensor, Background suppression

WLT280L-2P1536



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Model Name > [WLT280L-2P1536](#)
Part No. > [6048071](#)



Illustration may differ

At a glance

- WLT280L-2: Sensing distance up to 18 m with reflector P250
- Visible red Class 1 laser
- 2 x switching outputs and light/dark switch
- Disable laser by wire

Your benefits

- One sensor with two outputs and two status LEDs improves application flexibility and reduces the number of sensors needed
- Quick and easy commissioning with sensing range adjustment potentiometers and status LEDs - one for each output
- Quick and easy alignment with a red Class 1 laser
- Rotatable connector and light/dark switch for mounting and installation flexibility



Features

Sensor/detection principle:	Photoelectric proximity sensor, Background suppression
Dimensions (W x H x D):	23.5 mm x 76 mm x 55.8 mm
Housing design (light emission):	Rectangular
Sensing range max.:	200 mm ... 18,000 mm ¹⁾
Sensing range:	200 mm ... 18,000 mm
Type of light:	Visible red light
Light source:	Laser ²⁾
Laser class:	1 (EN 60825-1:2008-5, IEC 60825-1:2007-03)
Light spot diameter (distance):	Ø 50 mm (18 m)
Adjustment of operating distance:	Potentiometer

¹⁾ Reflector P250, PL80A ²⁾ Average service life of 100,000 h at T_A = +25 °C

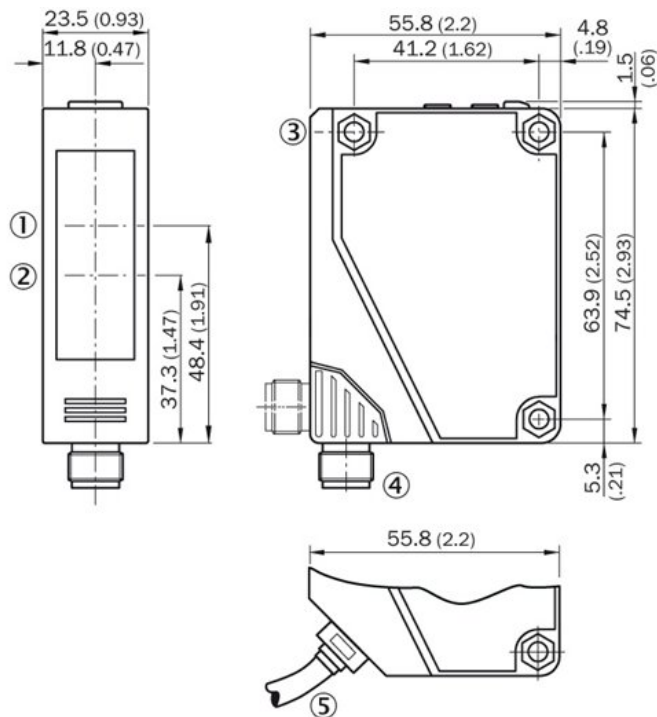
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	≤ 3 Vpp ²⁾
Power consumption:	≤ 70 mA ³⁾
Output type:	2 x PNP, Light/dark-switching, selectable via light/dark rotary switch, open collector
Switching mode selector:	Selectable via light/dark rotary switch
Output current I _{max} :	≤ 100 mA

Response time:	$\leq 2 \text{ ms}$ ⁴⁾
Switching frequency:	250 Hz ⁵⁾
Connection type:	Cable 2 m, 5-pin, 2 m ⁶⁾
Cable material:	PVC
Conductor cross-section:	0.18 mm ²
Cable diameter:	Ø 3.8 mm
Circuit protection:::	A, B, C, D ⁷⁾ 8) 9) 10)
Protection class:	III
Weight:	120 g
Housing material:	ABS
Optics material:	PMMA
Enclosure rating:	IP 67
Items supplied:	Mounting bracket BEF-W280
EMC:	EN 60947-5-2 ¹¹⁾
Ambient operating temperature:	-10 °C ... 50 °C
Ambient storage temperature:	-40 °C ... 70 °C
Switching mode characteristic:	Open collector

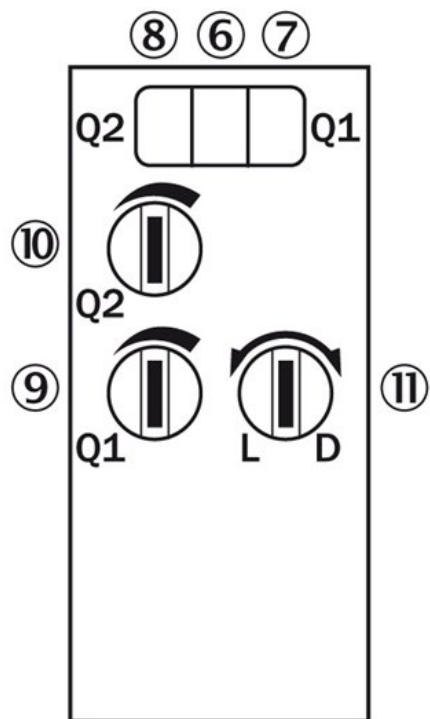
¹⁾ Limit values, operation in short-circuit protected network max. 8 A ²⁾ May not exceed or fall short of V_S tolerances ³⁾ Without load ⁴⁾ Signal transit time with resistive load ⁵⁾ With light/dark ratio 1:1 ⁶⁾ Do not bend below 0 °C ⁷⁾ A = V_S connections reverse-polarity protected ⁸⁾ B = output reverse-polarity protected ⁹⁾ C = interference suppression ¹⁰⁾ D = outputs overcurrent and short-circuit protected ¹¹⁾ The devices meet the interference suppression requirements for industrial use (interference suppression class A). When used in residential areas it can cause interference.

Dimensional drawing



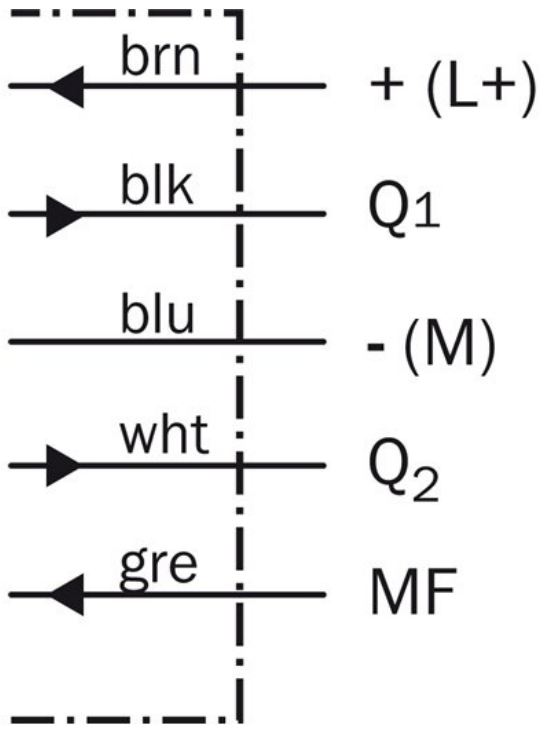
- [1] Center of optical axis, receiver
- [2] Center of optical axis, sender
- [3] Mounting hole, Ø 4.3 mm
- [4] Connector M12, 5-pin , rotatable by 90°
- [5] Cable, 2 m, 5-wire, Ø 3,8 mm

Adjustments possible

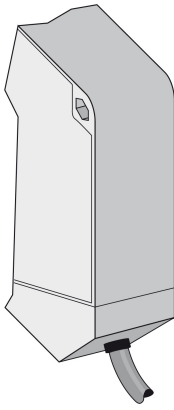


- |6| LED indicator green: Stability indicator
- |7| Status indicator LED, yellow: Status of received light beam (switching output 1)
- |8| Status indicator LED, yellow: Status of received light beam (switching output 2)
- |9| Sensing range adjustment: potentiometer for switching output 1
- |10| Sensing range adjustment: potentiometer for switching output 2
- |11| Light/dark selector

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 +1 905 771 14 44
E-Mail information@sick.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