



Photoelectric sensors Photoelectric retro-reflective sensor, Product group W160

WL160-E440



Model Name > [WL160-E440](#)
Part No. > [6022766](#)



- Vertical models
- Polarization filter, consequently reliable detection of objects with shiny surfaces
- Red light as alignment aid
- Sensitivity adjustable
- LED indicator: operating reserve



Product features

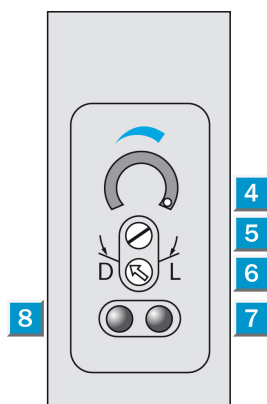
Sensing range min ... max:	0.01 m ... 4.5 m, 0.01 m ... 6.5 m
Light source:	LED
Type of light:	Red light
Light spot diameter:	Approx. 300 mm at 3 m distance
Laser:	Red light
Sensing range max.:	0.01 m ... 4.5 m, 0.01 m ... 6.5 m
Relating to:	Reflector PL80A
Sensitivity adjustment:	Potentiometer, 2 rotations
Wave length:	680 nm

Technical data

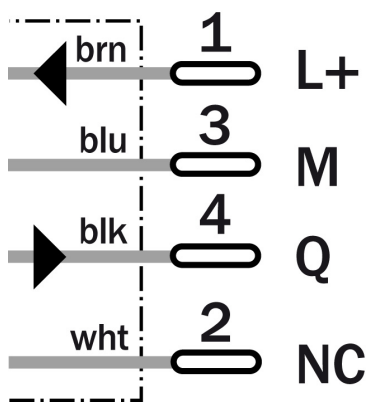
Design:	Rectangular
Dimensions (W x H x D):	11 mm x 38 mm x 23 mm
Supply voltage min ... max:	DC 10 ... 30 V ¹⁾
Ripple:	± 10 %
Power consumption:	≤ 25 mA
Switching output:	NPN: open collector: Q
Switching mode:	Light/dark switching via rotary switch
Signal voltage NPN HIGH/LOW:	Approx. $V_S / < 1.8 \text{ V}$
Output current max.:	100 mA
Response time:	≤ 0.5 ms
Switching frequency:	1,000 Hz
Connection type:	Connector, M8, 4-pin
Circuit protection:	V connections reverse-polarity protected/In-/outputs short-circuit protected/Interference suppression/Outputs overcurrent and short-circuit protected
Enclosure rating:	IP 67: EN 60529, IP 69K: EN 40050
Ambient operation temperature, min ... max:	-25 °C ... +55 °C
Ambient storage temperature, min ... max:	-40 °C ... +70 °C

1) Limit values, reverse-polarity protected operation in short-circuit protected network max. 8 A

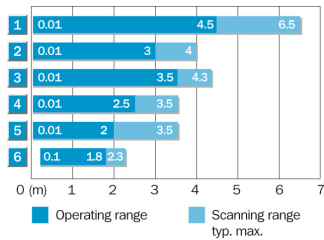
Technical drawing of a 1000 Series 1/2" (12.7mm) female connector. The drawing shows a side view of the connector with dimensions in millimeters. The overall length is 38mm. The mounting tab width is 11mm. The mounting tab height is 3mm. The main body width is 11.5mm. The main body height is 7.4mm. The main body is divided into two sections, each 11mm high. The main body is labeled with a crosshair symbol. The connector is labeled with a crosshair symbol. The connector is labeled with a crosshair symbol.



Connection diagram

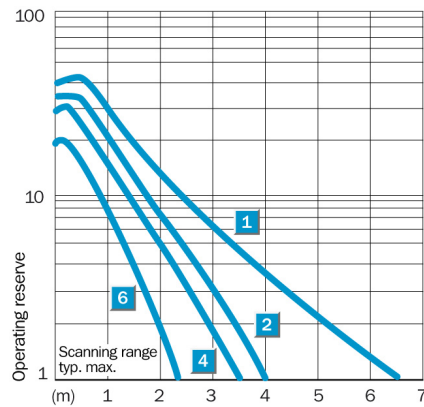


Sensing range diagram



Reflector type	Operating range
1	PL80A
2	P250
3	PL50A/PL40A
4	PL30A/PL31A
5	PL20A
6	Reflective tape Diamond Grade

Characteristic curve



Australia

Phone +61 3 9457 0600
1800 33 48 02 – 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 marketing@sick.com.br

Canada

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

Česká 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 info@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 +972-4-6881000
E-Mail info@sick-sensors.com

Italia

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

Japan

Phone +81 (0)3 5309 2112
E-Mail support@sick.jp

Magyarország

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

Nederland

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

Norge

Phone +47 67 81 50 00
E-Mail sick@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 sales.gsg@sick.com

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 88 65 878
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