



Photoelectric sensors
W190 Laser Standard, Through-beam
photoelectric sensor

WS/WE190L-N132



Model Name > [WS/WE190L-N132](#)
Part No. > [6026559](#)



Illustration may differ

At a glance

- Laser LED, visible red light, class 2
- User-friendly sensor with simple alignment and adjustment
- Sensitivity setting via potentiometer
- Selectable output: light/dark switching

Your benefits

- Highly visible laser light spot provides simple alignment and adjustment
- Simple adjustment via potentiometer
- Flexible operation with two output functions in one device due to light/dark selector switch



Features

Sensor/detection principle:	Through-beam photoelectric sensor
Dimensions (W x H x D):	15 mm x 44.4 mm x 30 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0 m ... 50 m
Type of light:	Visible red light
Light source:	Laser
Laser class:	2
Adjustment:	Potentiometer, 1 turn
Light spot size (distance):	Ø 40 mm (10 m)

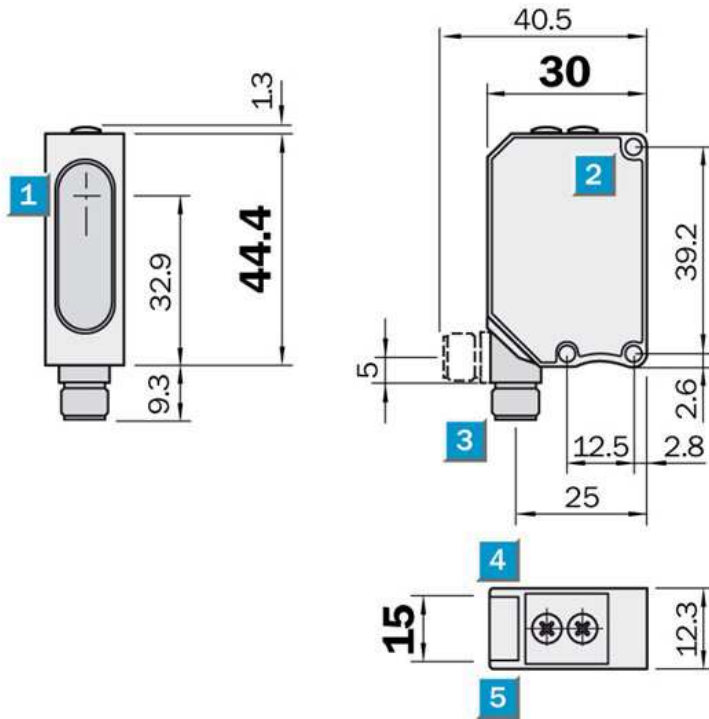
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Residual ripple:	± 10 % ²⁾
Power consumption:	≤ 40 mA ³⁾
Output type:	NPN
Switching mode:	Light/dark switching
Switching mode selector:	Manually selectable
Output current I _{max.} :	< 100 mA
Response time:	0.5 ms ⁴⁾
Switching frequency:	1,000 Hz ⁵⁾
Electrical connection:	Cable, 3-wire, 2 m ⁶⁾
Conductor cross-section:	0.18 mm ²
Circuit protection::	A, D ^{7) 8)}
Protection class:	III ⁹⁾

Weight: 200 g
Housing material: ABS, Plastic
Optics material: PMMA
Enclosure rating: IP 67
Ambient temperature operation: -10 °C ... 40 °C
Ambient storage temperature: -20 °C ... 60 °C

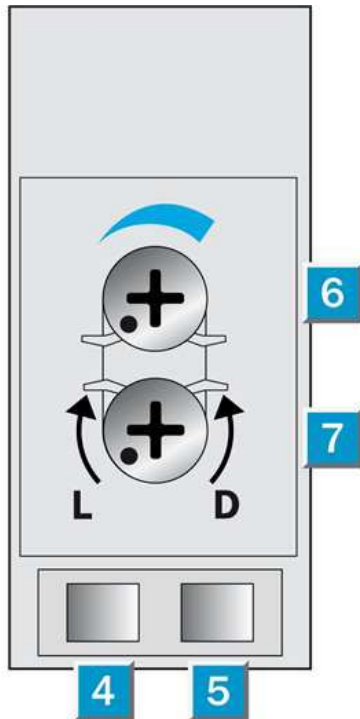
1) Limit values 2) May not exceed or fall short of V_S tolerances 3) Without load 4) Signal transit time with resistive load 5) With light/dark ratio 1:1 6) Do not bend below 0 °C 7) A = V_S connections reverse-polarity protected 8) D = outputs overcurrent and short-circuit protected 9) Reference voltage 50 V DC

Dimensional drawing



- [1] Center of optical axis
- [2] Mounting hole, \varnothing approx. 3.1 mm
- [3] Connector 4-pin, M8, 90° rotatable or cable 2 m, 3-wire
- [4] Status indicator LED, yellow: Output active
- [5] Status indicator LED, green: Laser on
- [6] Sensitivity adjustment
- [7] L.ON/ d.ON selection switch

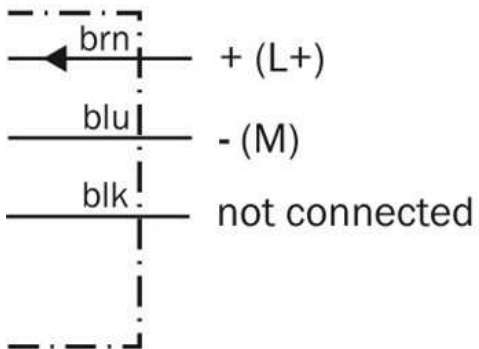
Adjustments possible



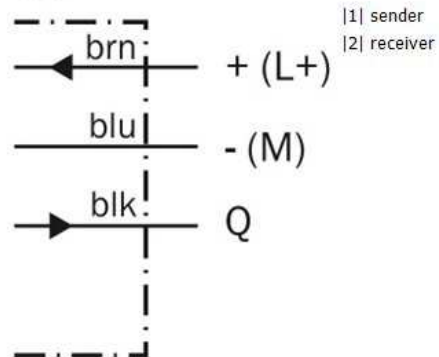
- [4] Status indicator LED, yellow: Output active
- [5] Status indicator LED, green: Laser on
- [6] Sensitivity control
- [7] L.ON/ d.ON selection switch

Connection diagram

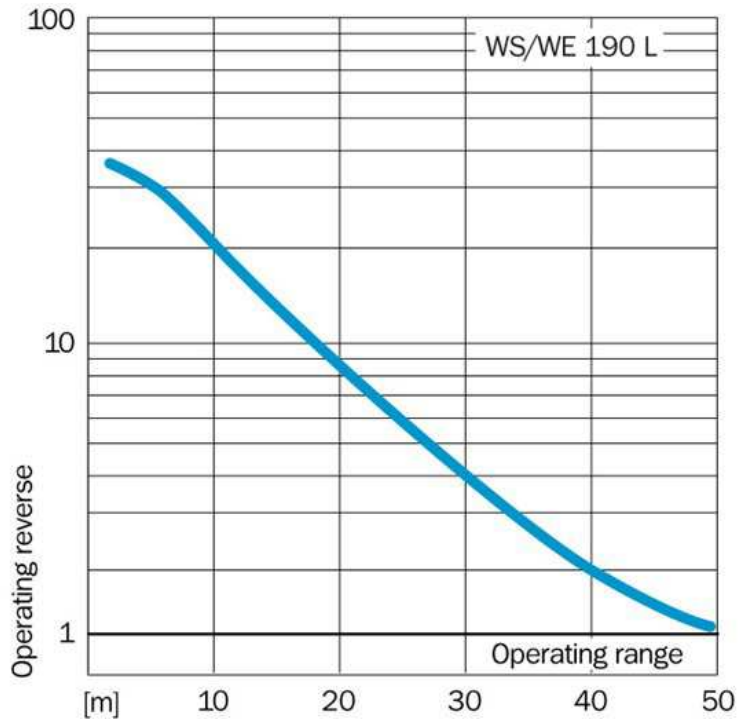
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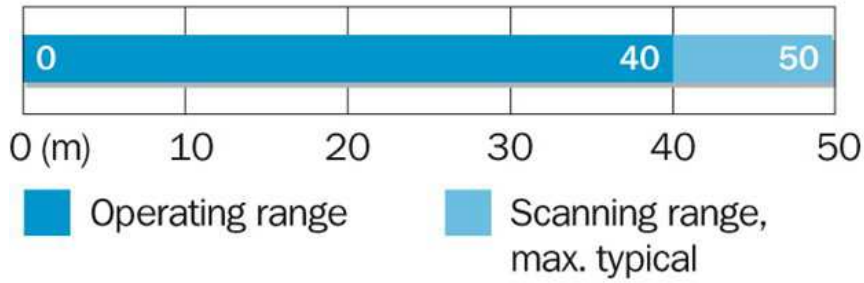
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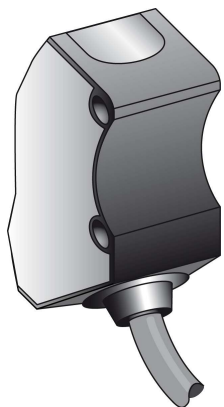
Characteristic curve



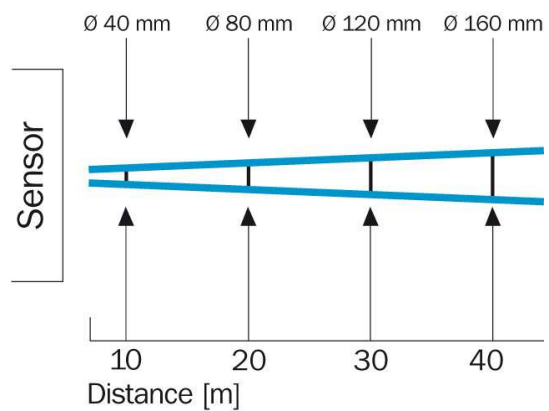
Sensing range diagram



Connection type



Light spot size



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