



Photoelectric sensors W150, Through-beam photoelectric sensor

WS/WE150-N430



Model Name > [WS/WE150-N430](#)
Part No. > [6011029](#)



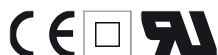
Illustration may differ

At a glance

- Sensing distance of up to 4.4 m
- Sensitivity control on device via potentiometer
- Light/dark switching selectable via control wire

Your benefits

- Reliable detection of the smallest of objects
- Reliable detection of fast-moving objects
- Highly visible red light for easy alignment



Features

Sensor/detection principle:	Through-beam photoelectric sensor
Dimensions (W x H x D):	10 mm x 28 mm x 17.5 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0 m ... 4.4 m
Sensing range:	0 m ... 4 m
Type of light:	Visible red light
Light source:	LED ¹⁾
Sensitivity adjustment:	Potentiometer, 270°
Angle of dispersion:	6 °

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

Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	± 10 % ²⁾
Power consumption:::	≤ 15 mA ^{3) 4) 5)} ≤ 20 mA
Output type:	NPN
Switching mode:	Light/dark-switching
Output characteristic:	Open collector
Switching mode selector:	Control cable
Output current I _{max} .:	≤ 100 mA
Response time:	≤ 0.5 ms ⁶⁾
Switching frequency:	1,000 Hz ⁷⁾
Angle of reception:	15 °
Connection type:	Connector M8, 4-pin

Circuit protection::::

A, B, C, D^{8) 9) 10) 11)}

Protection class:

II

Weight:

7 g

Polarisation filter:

-

AS-Interface-Chip:

-

Enclosure rating:

IP 67

Items supplied:

BEF-W150-A mounting bracket

Ambient operating temperature:

-25 °C ... 55 °C

Ambient storage temperature:

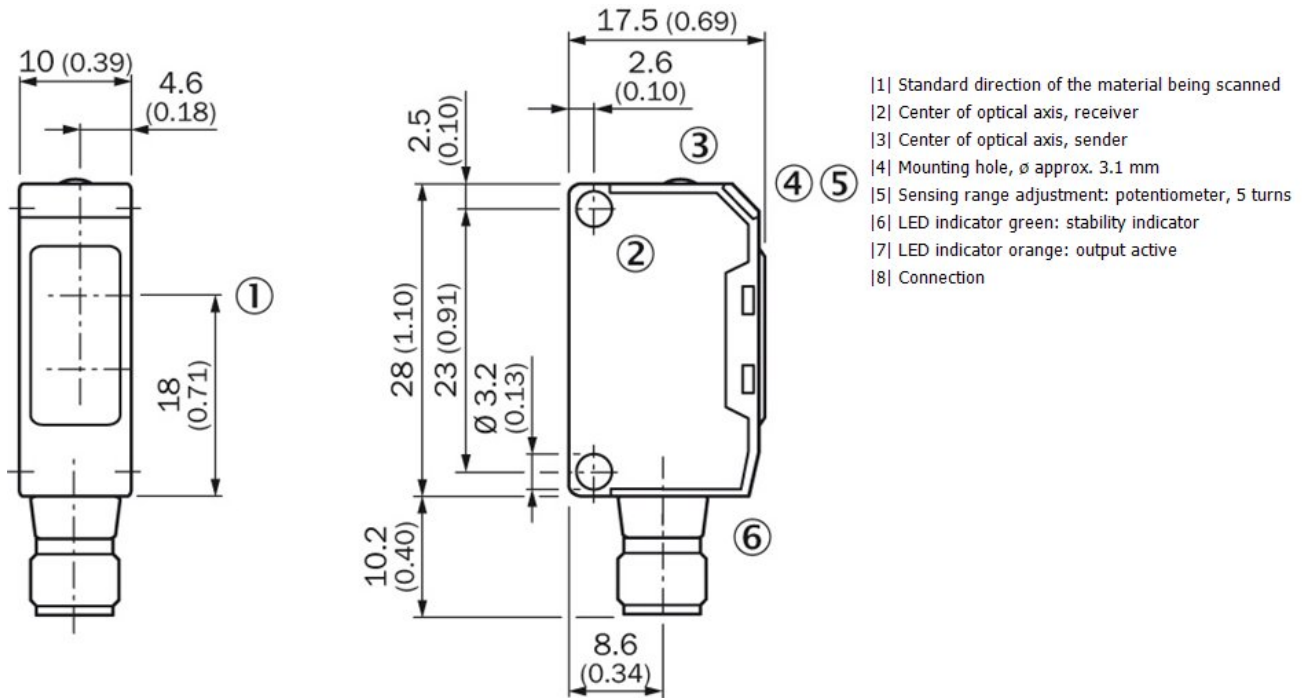
-40 °C ... 75 °C

UL File-No.:

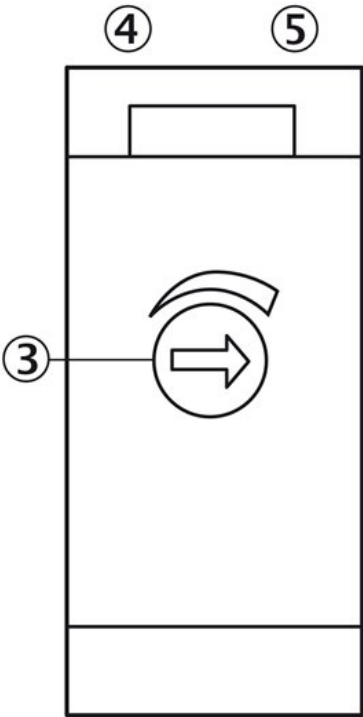
UL No. NRNT2.E128350 & cUL No. NRNT8.E128350

1) Limit values 2) May not exceed or fall short of V_S tolerances 3) Sender 4) Receiver 5) Without load 6) Signal transit time with resistive load 7) With light/dark ratio
1:1 8) A = V_S connections reverse-polarity protected 9) B = inputs and output reverse-polarity protected 10) C = interference suppression 11) D = outputs overcurrent and short-circuit protected

Dimensional drawing



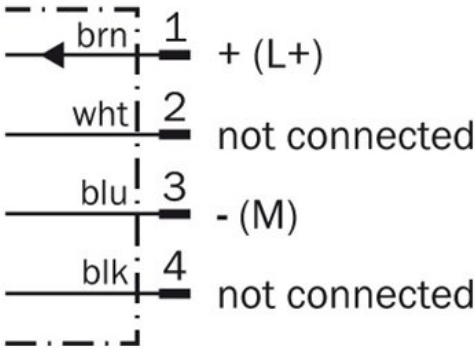
Adjustments possible



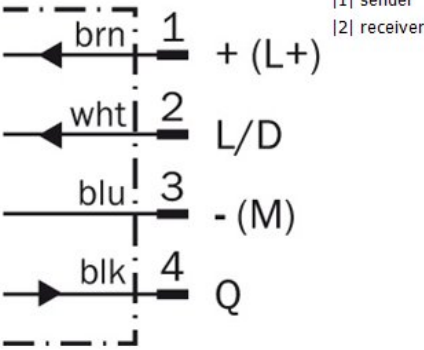
- |3| Sensitivity adjustment 270° (only WE)
- |4| LED indicator green: stability indicator (only WE)
- |5| LED indicator orange: output active (only WE)

Connection diagram

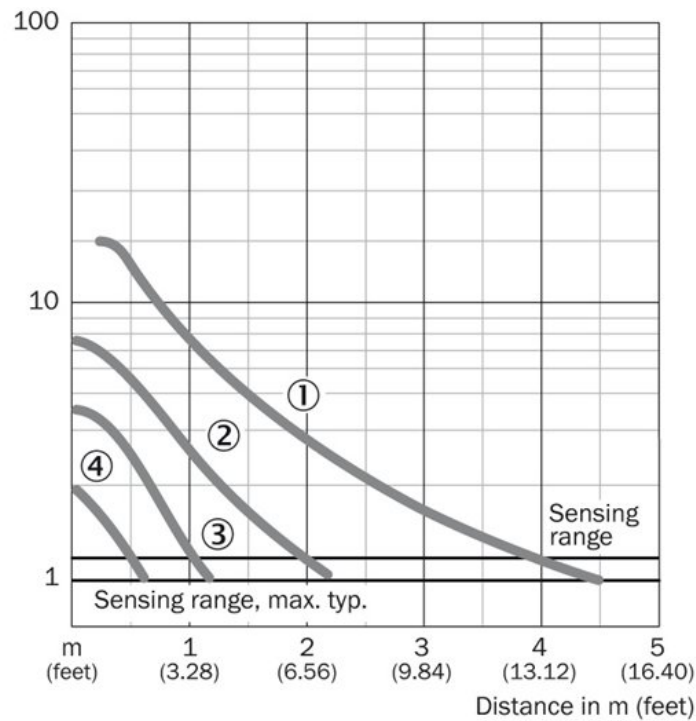
①



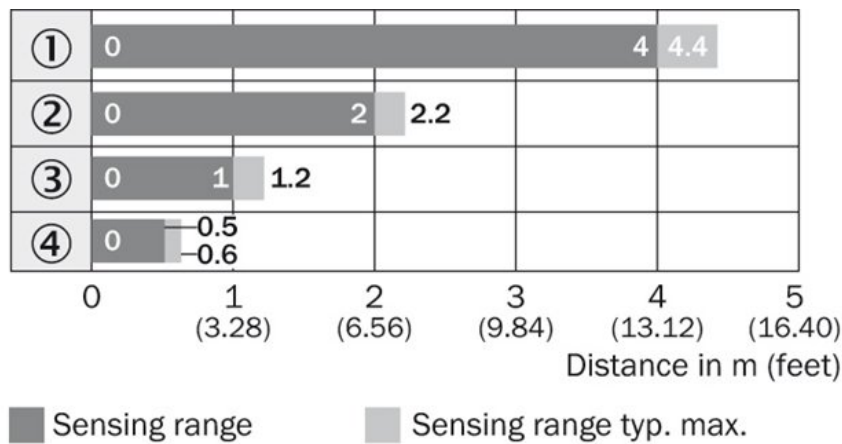
②



Characteristic curve



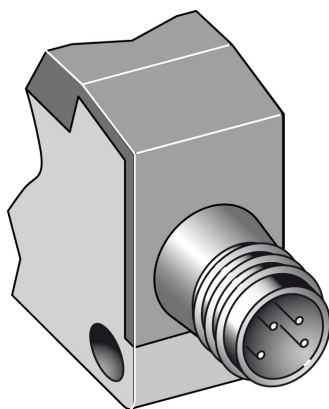
Sensing range diagram



Reduction in sensing range with slotted masks

- ① Without slotted mask
- ② Mask aperture width 2.0 mm
- ③ Mask aperture width 1.0 mm
- ④ Mask aperture width 0.5 mm

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