



Photoelectric sensors
W280-2, Photoelectric proximity sensor,
energetic

WTE280-2N4331



Model Name > [WTE280-2N4331](#)
Part No. > [6044725](#)



Illustration may differ

At a glance

- Highly visible red light spot thanks to the BrightLight LED
- Potentiometer for adjusting sensing range
- Light/dark switching (DC devices only)
- Rotatable connector, cable connection or terminal chamber
- Versions for 10 - 30 V DC or 24 - 240 V DC/AC voltage supply
- Stainless steel mounting bracket included in delivery

Your benefits

- Simple and fast commissioning with the highly visible light spot of the BrightLight LED
- Simple operation via potentiometer
- Light/dark switching provides application flexibility
- All necessary mounting and operating accessories are included in delivery, enabling quick and easy setup: since mounting bracket (stainless steel 1.4301) is included in delivery scope
- DC devices and AC/DC devices available in the same housing, allowing electrical flexibility



Features

Sensor/detection principle:	Photoelectric proximity sensor, energetic
Dimensions (W x H x D):	23.5 mm x 74.5 mm x 63 mm
Housing design (light emission):	Rectangular
Sensing range max.:	10 mm ... 2,000 mm ¹⁾
Sensing range:	10 mm ... 1,500 mm
Type of light:	Visible red light
Light source:	LED ²⁾
Adjustment:	Potentiometer
Light spot size (distance):	Ø 45 mm (1,500 mm)

¹⁾ Object with 90 % reflectance (referred to standard white, DIN 5033) ²⁾ Average service life: 100,000 h at T_U = +25 °C

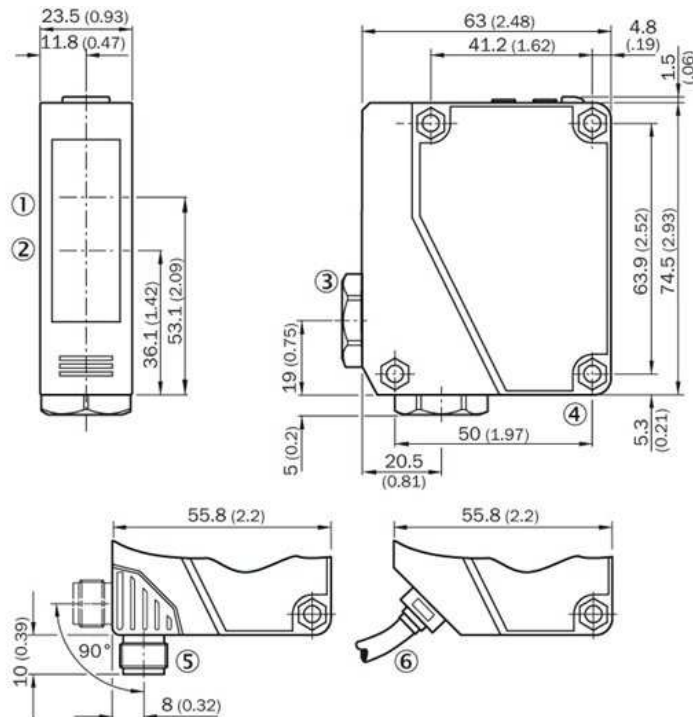
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Residual ripple:	≤ 5 Vpp ²⁾
Power consumption:	≤ 20 mA ³⁾
Output type:	NPN, open collector
Switching mode:	Light/dark switching

Switching mode selector:	Selectable via light/dark rotary switch
Output current I _{max} ..:	100 mA
Response time:	≤ 0.5 ms ⁴⁾
Switching frequency:	1,000 Hz ⁵⁾
Electrical connection:	Cable gland
Circuit protection:::	A, B, C, D ⁶⁾ ⁷⁾ ⁸⁾ ⁹⁾
Protection class:	III
Weight:	150 g
Special device:	-
Optics material:	PMMA
Enclosure rating:	IP 66 IP 67
Items supplied:	Mounting bracket BEF-W280
EMC:	EN 60947-5-2 ¹⁰⁾
Ambient temperature operation:	-25 °C ... +55 °C
Ambient storage temperature:	-40 °C ... +70 °C
UL File No.:	NRKH2.E300503 & NRKH8.E300503
Housing material:	ABS, Plastic

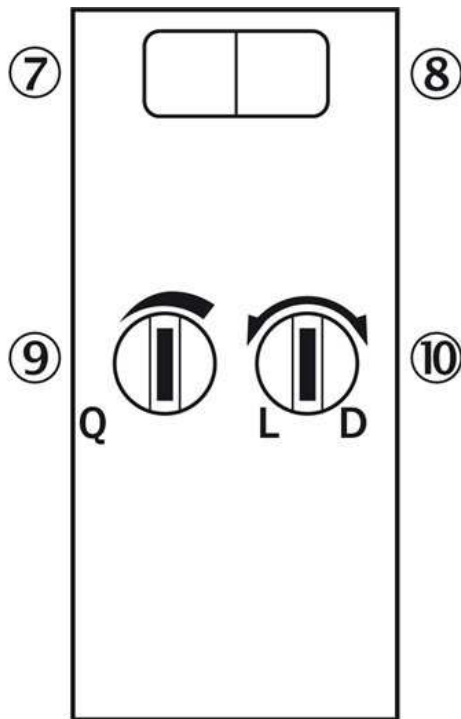
¹⁾ Limit values when operated in short-circuit protected network: max. 8 A ²⁾ May not exceed or fall below U_V tolerances ³⁾ Without load ⁴⁾ Signal transit time with resistive load ⁵⁾ With light/dark ratio 1:1 ⁶⁾ A = V_S connections reverse-polarity protected ⁷⁾ B = inputs and output reverse-polarity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

Dimensional drawing



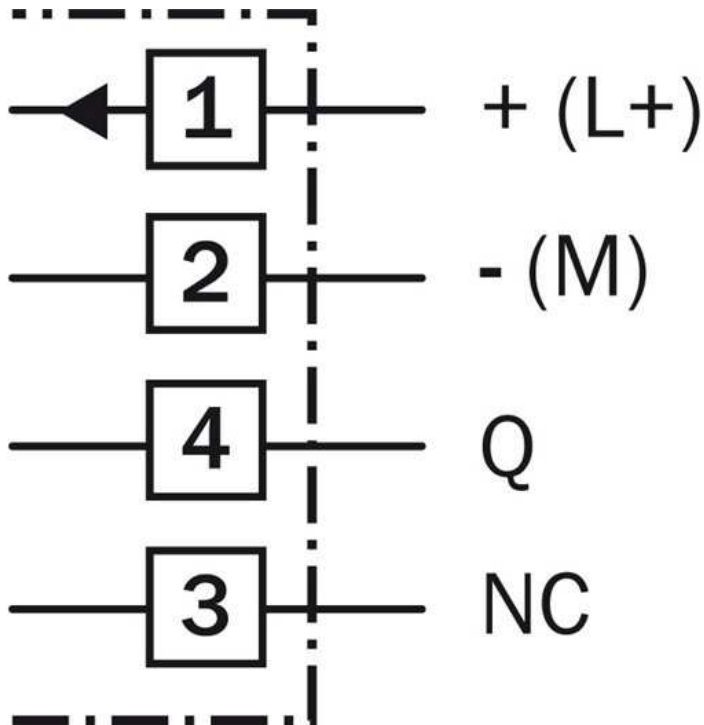
- |1| Center of optical axis, receiver
- |2| Center of optical axis, sender
- |3| Cable entry gland 3/8" for cable diameter 6 to 8 mm
- |4| Mounting hole, Ø 4.3 mm
- |5| Connector M12, 4-pin, 90°
rotatable, can be locked with slider
- |6| Cable, 2 m, 3-wire, Ø 3,8 mm

Adjustments possible

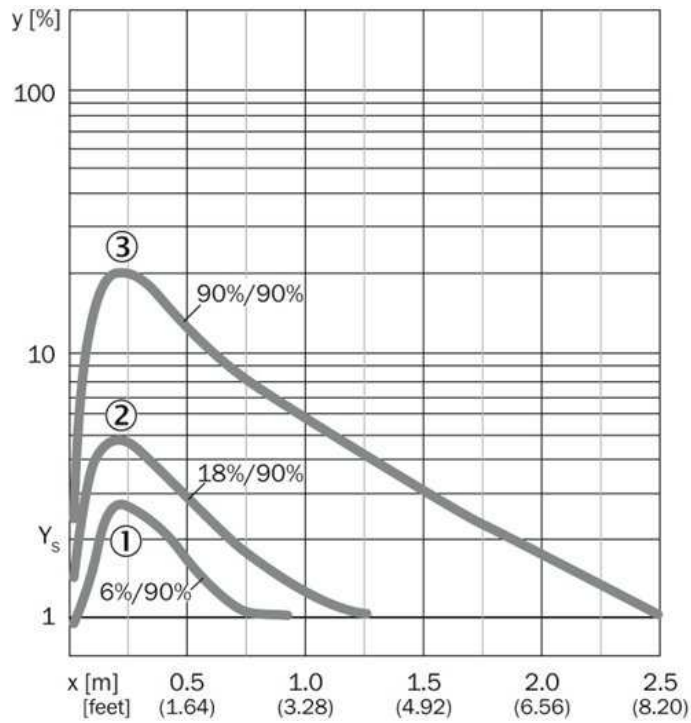


- |7| LED indicator green: Stability indicator
- |8| Status indicator LED,
yellow: Status of received light beam
- |9| Sensing range adjustment: potentiometer
- |10| Light/dark selector

Connection diagram

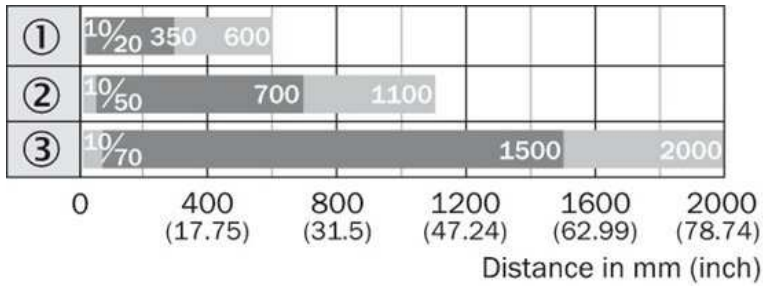


Characteristic curve



- |1| Sensing range on black, 6 % remission
- |2| Sensing range on gray, 18 % remission
- |3| Sensing range on white, 90 % remission

Sensing range diagram



- |1| Sensing range on black, 6 % remission
- |2| Sensing range on gray, 18 % remission
- |3| Sensing range on white, 90 % remission

Sensing range
 Sensing range max.

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