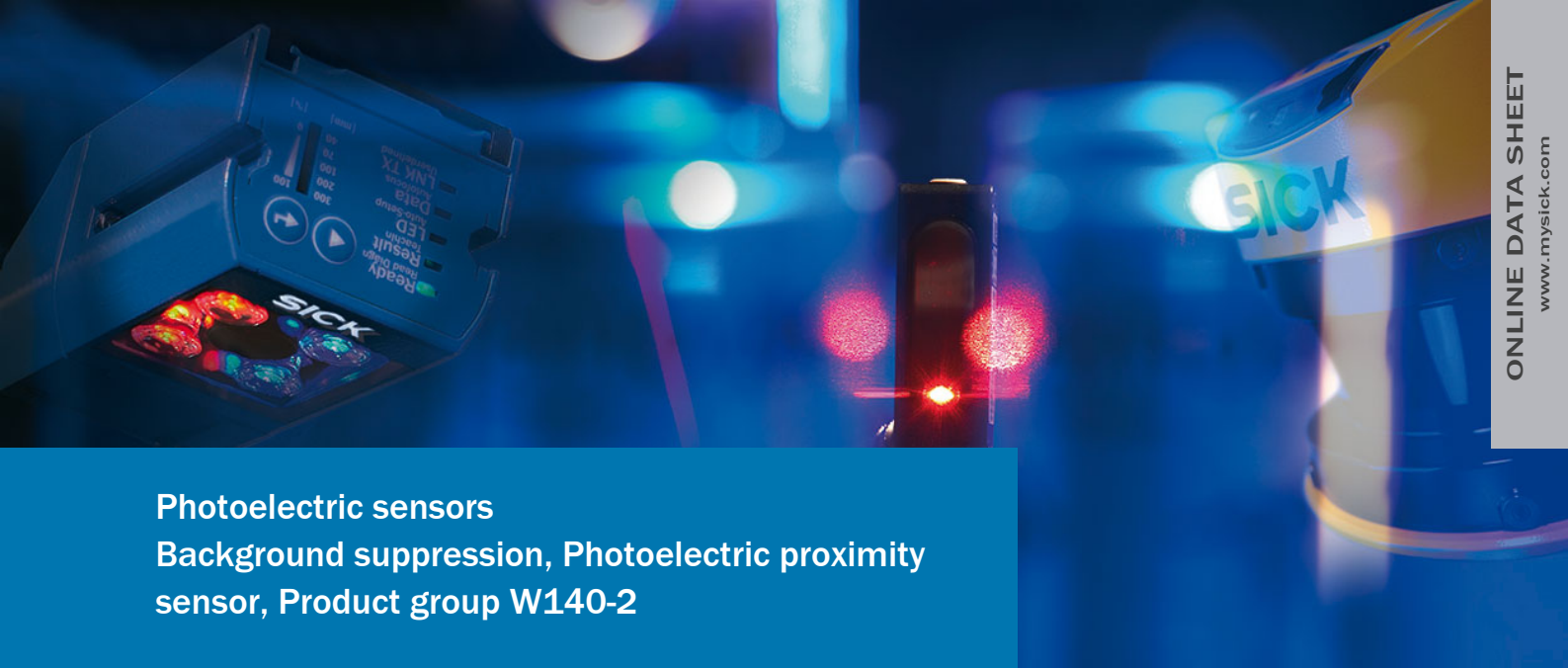




Photoelectric sensors
Background suppression, Photoelectric proximity
sensor, Product group W140-2

WTB140-N122

Model Name > [WTB140-N122](#)
Part No. > [6012628](#)



- With background suppression (BGS), consequently reliable detection of dark objects in front of a light background
- Scanning distance adjustable via potentiometer
- Red light as alignment aid
- Optionally with time release delay tOFF = 0 ... 100 ms



Product features

Sensing range min ... max:	15 mm ... 500 mm, 2 mm ... 500 mm
Light source:	LED
Type of light:	Red light
Light spot diameter:	Approx. 15 mm at 200 mm distance
Laser:	Red light
Sensing range max.:	15 mm ... 500 mm, 2 mm ... 500 mm
Adjustment.:	potentiometer, 5-turn
Wave length:	680 nm

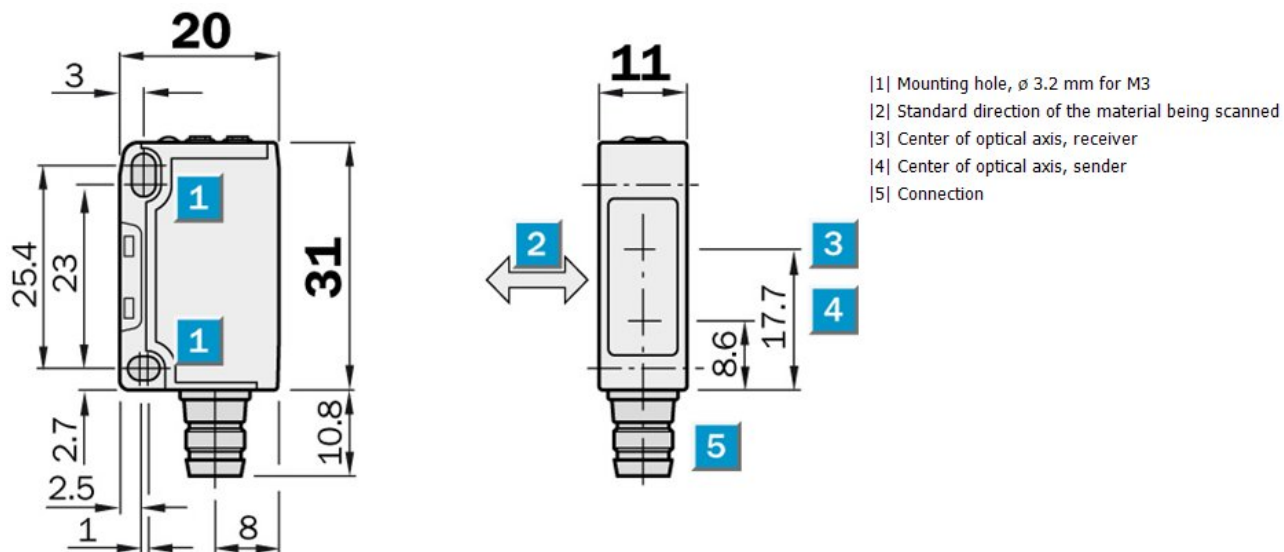
Technical data

Design:	Rectangular
Dimensions (W x H x D):	11 mm x 31 mm x 20 mm
Supply voltage min ... max:	DC 10 ... 30 V ¹⁾
Ripple:	± 10 %
Power consumption:	≤ 30 mA
Switching output:	NPN: open collector: Q
Switching mode:	Light-/dark-switching via L/D control cable
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:	Cable, 2 m
Number of cores:	4
Conductor size:	0.18 mm ²
Circuit protection:	V_S connections reverse-polarity protected/In-/outputs short-circuit protected/Interference suppression/Outputs overcurrent and short-circuit protected
Enclosure rating:	IP 67
Ambient operation temperature, min ... max:	-25 °C ... +55 °C

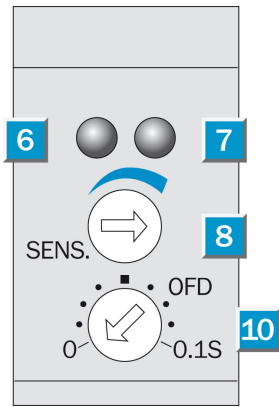
Ambient storage temperature, min ... max:	-40 °C ... +70 °C
Weight:	Ca. 53 g
Housing material:	PBT
Cable material:	PVC
Angle of dispersion:	ca. 4.3 °
Series:	W140-2
Optics material:	PC
Cable diameter:	Ø 4 mm
Time delay:	selectable: 0 ... 100 ms
Time type:	t OFF (off delay)

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

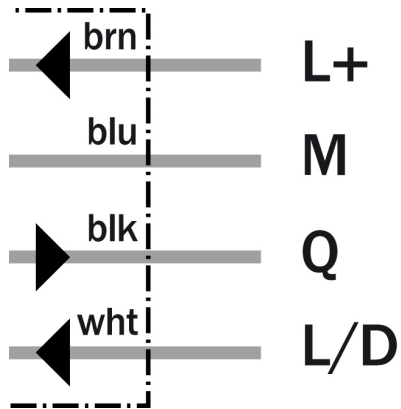
Dimensional drawing



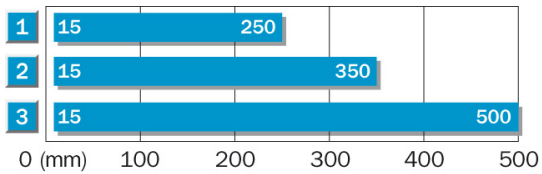
Adjustment possible



Connection diagram



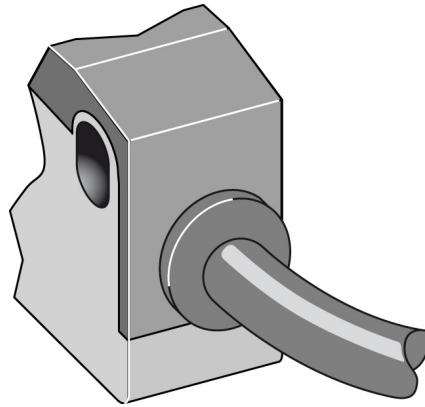
Sensing range diagram



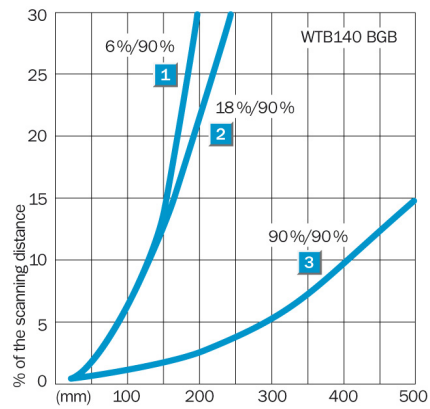
Operating range

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

Connection type



Scanning distance displacement



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