



Short range distance sensors (displacement) OD Hi

OD100-40N850



Model Name > OD100-40N850
Part No. > 6025046

At a glance

- Many measurement ranges from 26 mm ... 34 mm to 100 mm ... 400 mm
- CMOS receiving element for accurate measurement independent of surface
- High-visibility LC display on the device
- Laser technology for measurement of very small objects
- Tough and compact stand-alone device

Your benefits

- Reliably measure targets regardless of color or reflectivity, minimizing machine downtime
- Fast, cost-effective setup due to easy-to-read LC display
- Less wiring ensures low installation cost due to its compact, stand-alone design
- Tough, metal housing for reliable operation and reduced machine downtime
- Non-contact measurement enables quality inspection during production
- 100% inspection with optical distance sensors ensures consistent high product quality



Performance

Measuring range:	60 mm ... 140 mm, 6 % ... 90 % remission
Resolution:	35 μ m ^{1) 2)}
Repeatability:	105 μ m ³⁾
Linearity:	$\pm$ 800 μ m ⁴⁾
Response time ⁵⁾ :	2 ms
Measuring frequency:	1 kHz
Light source:	Laser, red
Laser protection class:	2 (EN 60825-1) ⁶⁾
Typ. light spot size (distance):	1 mm x 1.5 mm (100 mm)
Additional function:	3 memory banks, Automatic sensitivity adjustment, Teach-in of analog output, Teach-in of switching output, Set hysteresis, Manual sensitivity adjustment, Averaging function 1 ... 1,024x, Switching mode Distance to object (DtO), Switching mode Window (Wnd)

^{1) 4)} 6 % ... 90 % remission ²⁾ Averaging function set to: 64 ³⁾ Averaging function set to: 64; constant ambient conditions ⁵⁾ Automatic sensitivity adjustment $\leq$ 15 ms

⁶⁾ Wavelength 650 nm, max. output 1 mW

Interfaces

Output type ¹⁾ :	1 x NPN (100 mA)
Analog output:	1 x 4 mA ... 20 mA ($\leq 300 \Omega$)
Teach input:	1 x ET
Trigger input:	1 x trigger

¹⁾ PNP: HIGH = $V_S - (< 2 \text{ V})$ /LOW = $< 2 \text{ V}$; NPN: HIGH = $< 2 \text{ V}$ /LOW = V_S

Mechanics/electronics

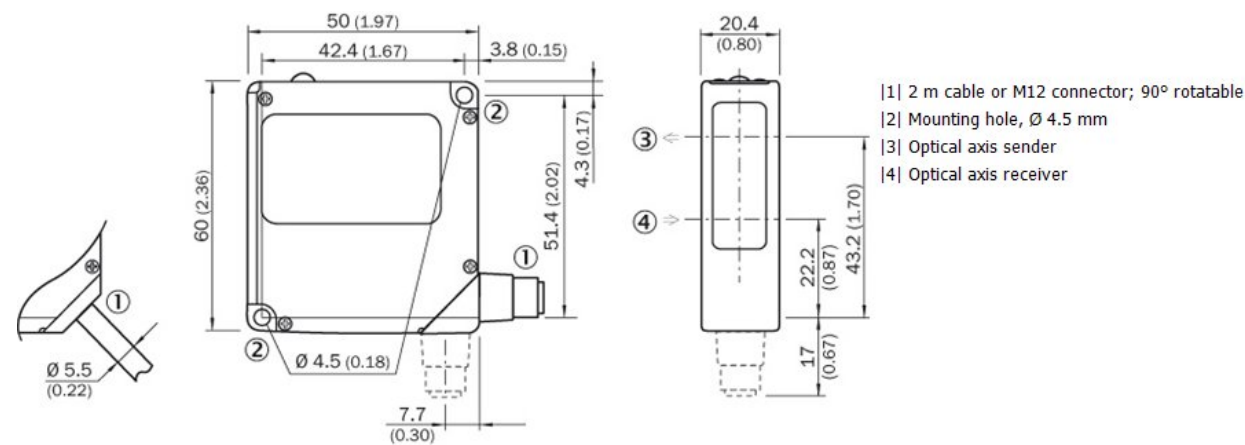
Connection type:	Connector M12, 8-pin
Supply voltage V_S ¹⁾ :	DC 12 V ... 24 V
Power consumption ²⁾ :	$\leq 2.88 \text{ W}$
Warm-up time:	$\leq 5 \text{ min}$
Indication:	LC display
Weight:	200 g ³⁾
Housing material:	Zinc housing with glass lens

¹⁾ DC 12 V (-5 %) ... DC 24 V (+10 %) ²⁾ Exclusive load, inclusive current output ³⁾ 300 g with cable

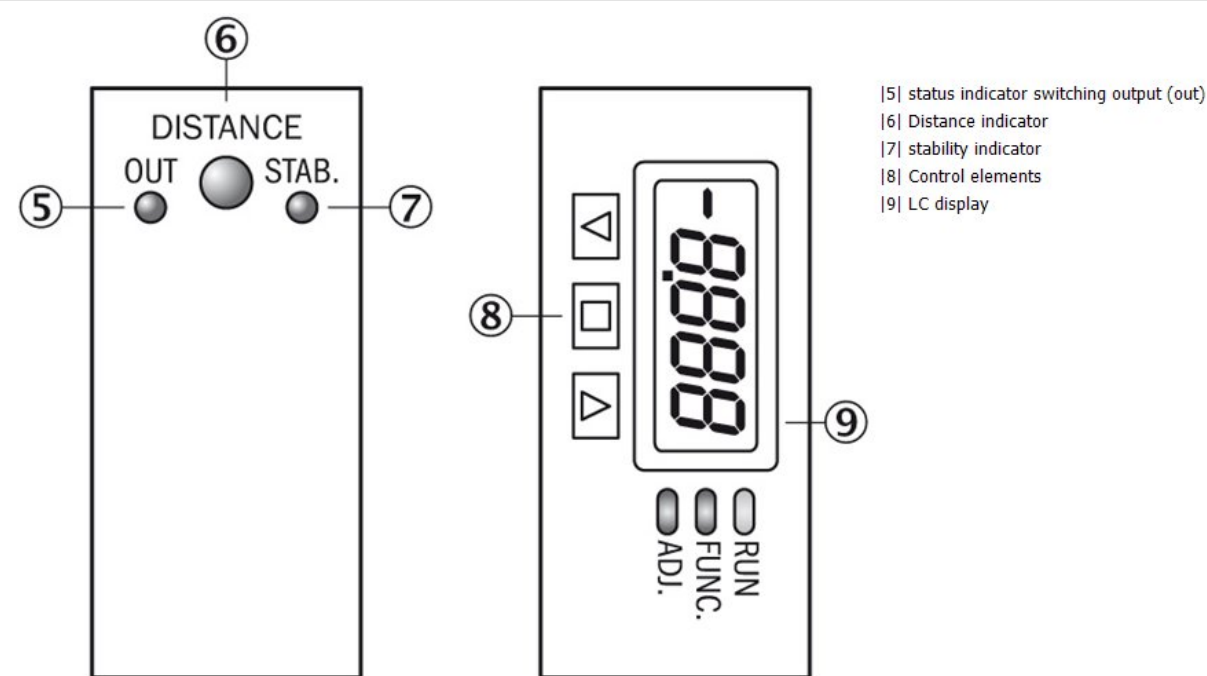
Ambient data

Enclosure rating:	IP 67
Protection class:	III
Ambient temperature:	Operation: -10 ... 40 °C, Storage: -20 ... 60 °C
Temperature drift:	$\pm 0.08 \text{ \% FS/K}$ (FS = Full Scale = Measuring range of sensor)
Typ. ambient light safety:	Artificial light: $\leq 3,000 \text{ lx}$ Sunlight: $\leq 10,000 \text{ lx}$
Vibration resistance:	10 Hz ... 55 Hz (amplitude 1.5 mm, x-, y-, z-axis 2 hours each)
Shock resistance:	50 G (x-, y-, z-axis 3 times each)
Relative humidity (not condensing):	35 % ... 85 %

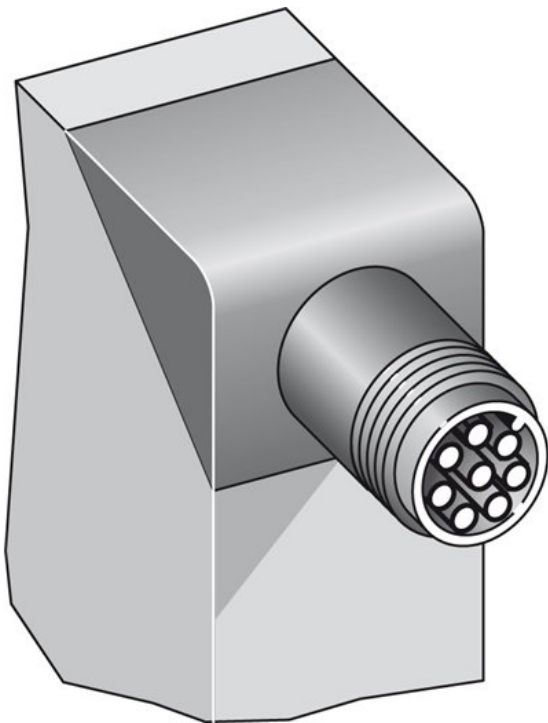
Dimensional drawing



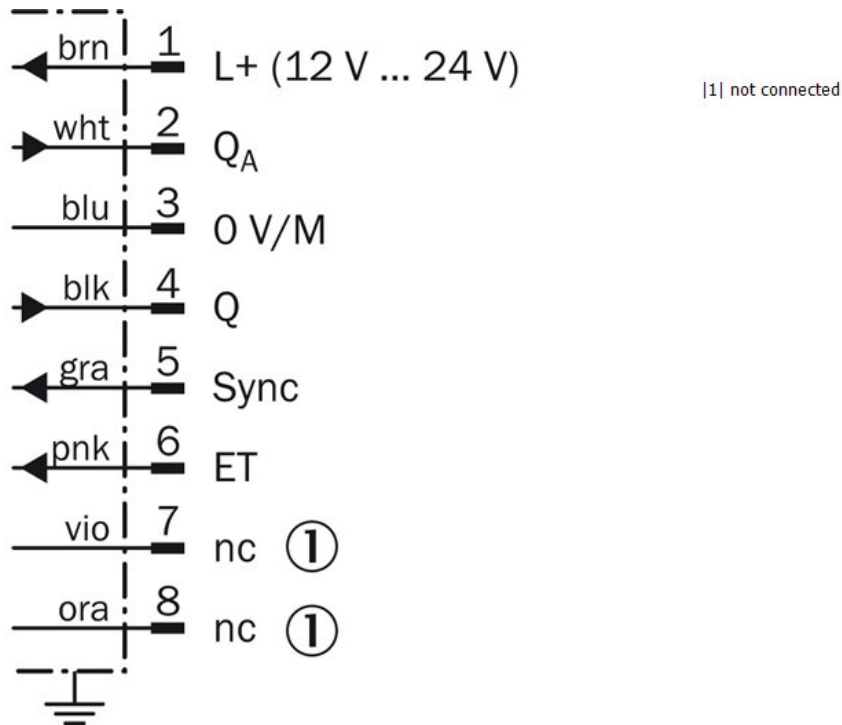
Adjustment possible



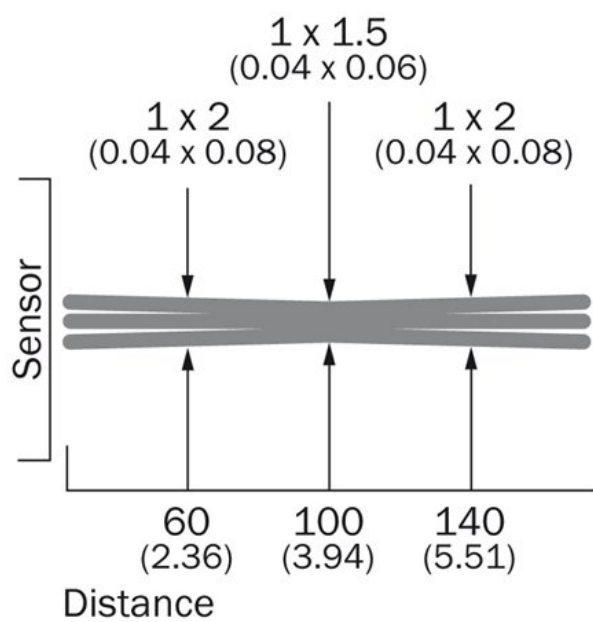
Connection type



Connection diagram

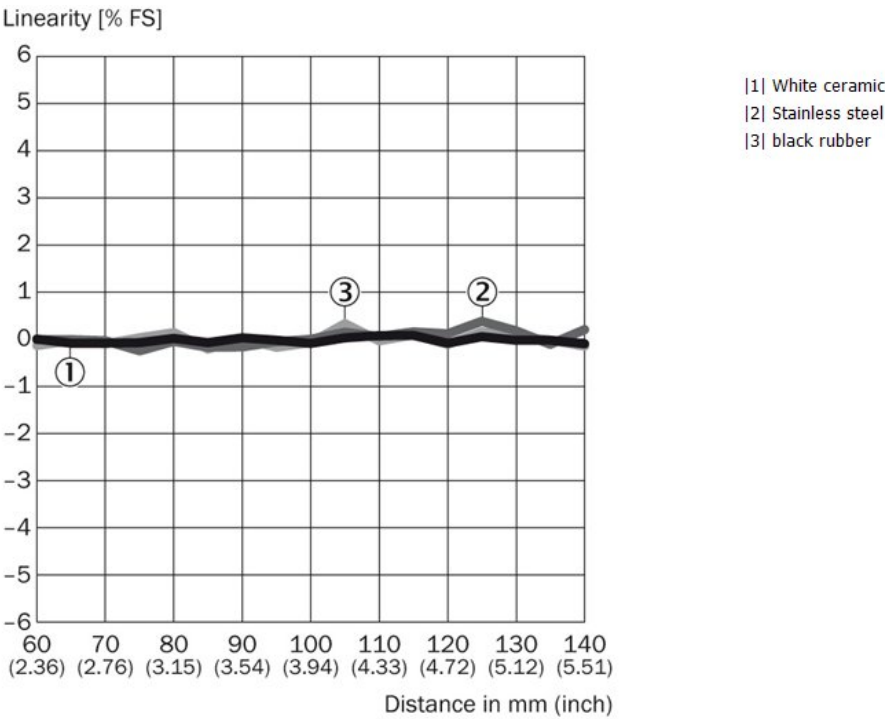


Light spot size



All dimensions in mm (inch)

Linearity



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