



Linear measurement sensors OLM100, RS-485

OLM100-1005



Model Name > OLM100-1005
Part No. > 1046580

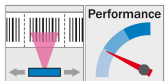


At a glance

- Control marks for special functions and sensor configuration
- Measurement range up to 10 km
- High repeatability of 1 mm
- Adjustable resolution as low as 0.1 mm
- Multiple interfaces: SSI, RS-422, RS-485 and CANopen
- Self-adjusting quadruple redundant red LED lighting
- Integrated skew and bank angle for fast parallel mounting, therefore alignment only in one axis is necessary
- Large temperature range from -30 °C to +60 °C

Your benefits

- Precise positioning with speeds of up to 4 m/s significantly increases throughput
- Camera-based system with no moving parts in combination with tough metal housing ensure increased lifetime, thus reducing replacement costs
- High ambient light safety due to selfadjusting LED illumination ensures reliable operation, thus increasing machine availability
- Large temperature range from -30 °C to +60 °C offers flexible and reliable use in many applications
- Various interfaces (RS-422, RS-485, SSI and CANopen) offer highest flexibility and easiest system integration, hence saving costs for interface converters and protocol adaption
- Smallest available housing for common industrial serial interfaces offers easy integration in confined spaces, therefore allowing the customer to save room on his machine design



CE III RoHS 2011/65/EU **RS-485**

Performance

Resolution:	0.1 mm, 1 mm
Repeatability ¹⁾ :	1 mm
Output rate:	5 ms
Light source:	LED, red
Measurement range ²⁾ :	0 m ... 10,000 m
Bar code width ³⁾ :	30 mm
MTTFd:	> 100 years
Working distance:	100 mm, ± 20 mm (to bar code tape, 30 mm bar code width)
Max. movement speed:	4 m/s
Laser service life (MTTF at 25 °C):	100,000 h ⁴⁾

¹⁾ Statistical error 1σ ²⁾ Dependant on the set resolution and transfer protocol ³⁾ The bar code tape available from SICK always has a width of 30 mm. The bar code tape is available in two heights: 30 mm or 40 mm ⁴⁾ LED typ. MTTF at 25°C

Interfaces

Data interface: RS-485

Mechanics/electronics

Supply voltage V_s ¹⁾: DC 10 V ... 30 V

Ripple ²⁾: ≤ 5 Vpp

Power consumption: < 3 W

Initialization time: < 3 s

Housing material: Aluminum
zinc

Weight: Ca. 260 g

¹⁾ Limit values, reverse-polarity protected ²⁾ May not exceed or fall short of V_s tolerances

Ambient data

Enclosure rating: IP 65 (EN 60 529)

Protection class: III

Ambient temperature ^{1), 2)}: Operation: -30 ... 60 °C, Storage: -40 ... 75 °C

Typ. ambient light safety ³⁾: $\leq 30,000$ lx

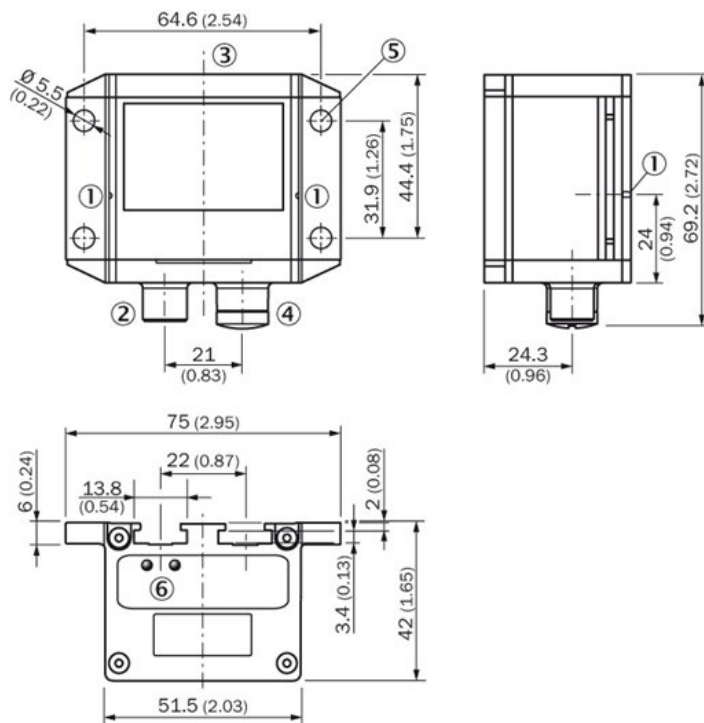
Vibration resistance: DIN/EN 60068-2-6, DIN/EN 60068-2-64

Shock resistance: DIN/EN 60068-2-27

Electromagnetic compatibility (EMC): EN 61000-6-2/EN 61000-6-4

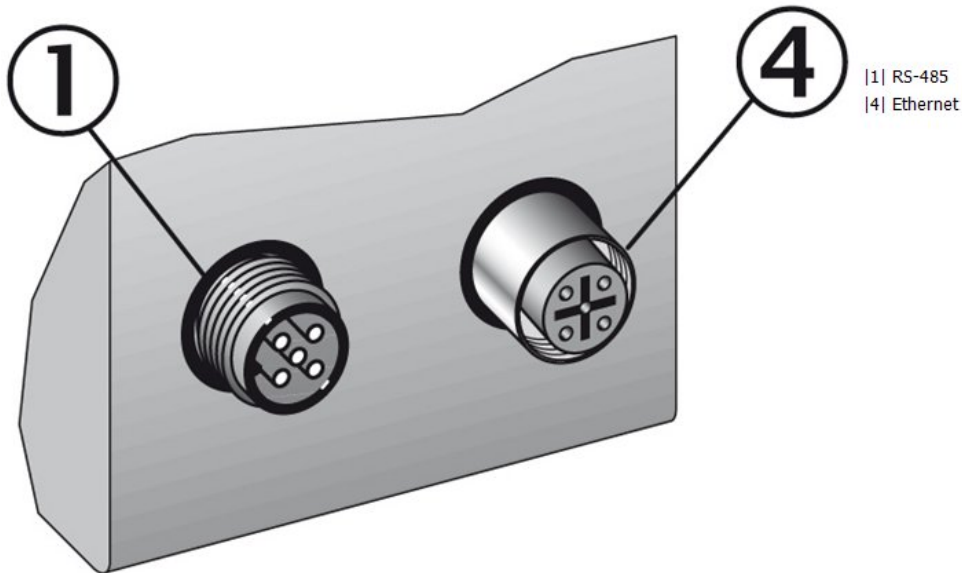
¹⁾ Temperatures < -20 °C with 5 min warm up time ²⁾ Max. 95 % humidity, non-condensing ³⁾ Typ. value at +25 °C ambient temperature

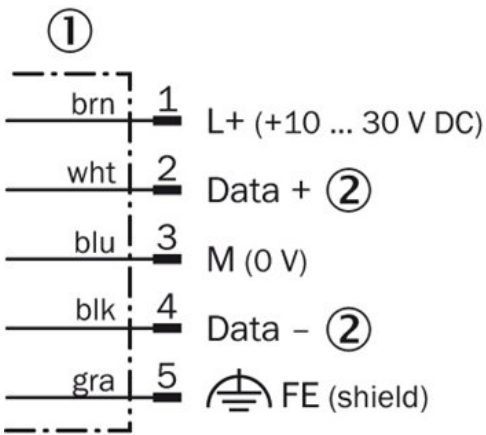
Dimensional drawing



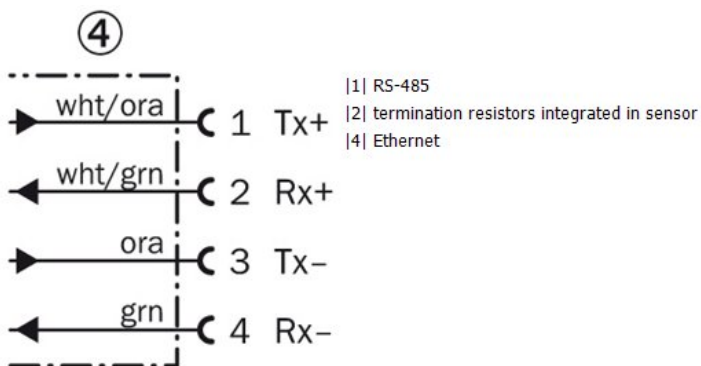
- [1] Adjustment aid (slot)
- [2] Connector M12, 5-pin
- [3] Reference axis position measurement
- [4] Connector socket Ethernet M12, 4-pin
- [5] Mounting holes, Ø 5.5 mm

Connection type





M12 (A-coded)



M12 (D-coded)

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