



## Linear measurement sensors OLM100

OLM100-1003



**Model Name** > [OLM100-1003](#)  
**Part No.** > [1047412](#)

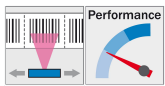


#### At a glance

- Highly accurate non-contact bar code positioning system
- Travel speed of up to 4 m/s can be achieved
- Wear and maintenance-free thanks to camera technology
- Adjustable resolution as low as 0.1 mm
- Precise positioning up to 10,000 m
- Compact, extremely rugged magnesium housing
- Wide range of interfaces: SSI, RS-422, RS-485, and CANopen
- Large temperature range from -30°C to +60°C

#### Your benefits

- High travel speed linked to precise positioning increases system efficiency and improves throughput
- Camera-based system with no moving parts increases the sensor's service life, thus reducing lifecycle costs considerably
- Minimal housing dimensions combined with the latest industrial interfaces ensure integration into almost any system design, even where space is limited
- Serial interfaces (RS-422, RS-485, SSI, and CANopen) offer highest flexibility and easiest system integration, hence saving costs for interface converters and protocol adaptation
- The large temperature range from -30°C to +60°C offers reliable use in many applications



#### Performance

Resolution:	0.1 mm, 1 mm
Repeatability <sup>1)</sup> :	1 mm
Light source:	LED, red
Measurement range <sup>2)</sup> :	0 m ... 10,000 m
Bar code width:	30 mm
Sensing distance:	100 mm, ± 20 mm
Max. movement speed:	4 m/s
Output time:	5 ms

<sup>1)</sup> Statistical error 1  $\sigma$  <sup>2)</sup> Dependant on the set resolution and transfer protocol

#### Interfaces

Data interface: RS-422

### Mechanics/electronics

Supply voltage  $V_s$  <sup>1)</sup>: DC 10 V ... 30 V  
Ripple <sup>2)</sup>:  $\leq 5$  Vpp  
Power consumption:  $< 3$  W  
Initialization time:  $< 3$  s  
Housing material: Magnesium  
zinc  
Weight: Ca. 168 g

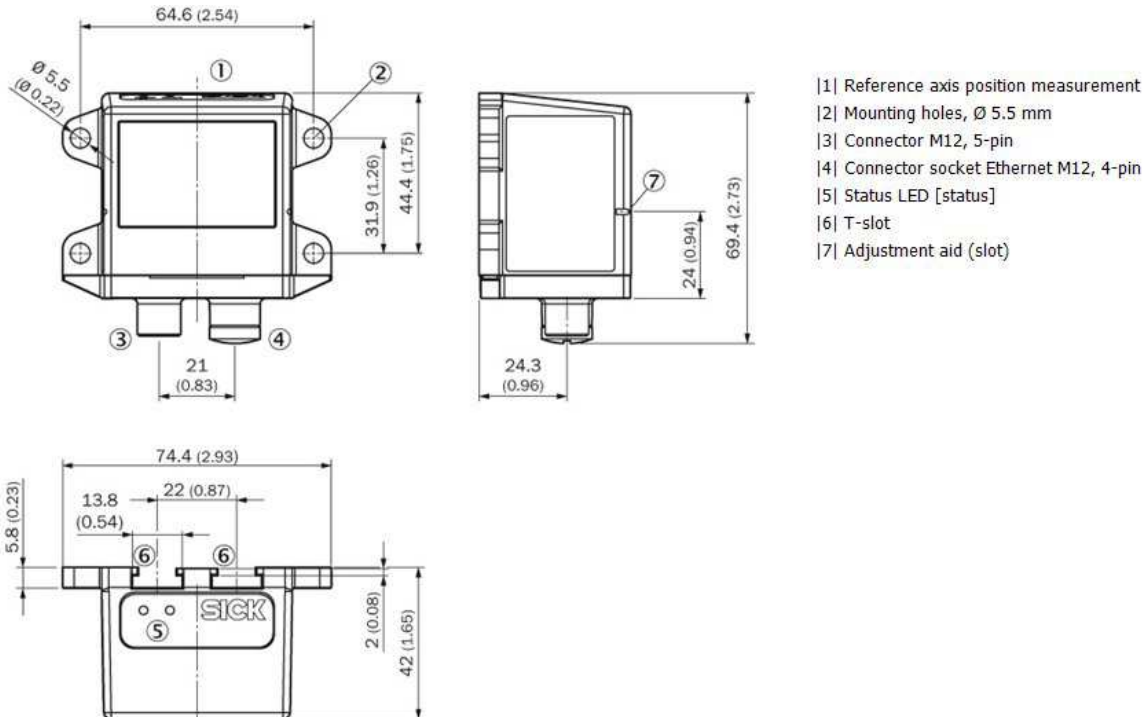
<sup>1)</sup> Limit values, reverse-polarity protected <sup>2)</sup> May not exceed or fall below  $U_v$  tolerances

### Ambient data

Enclosure rating: IP 65 (EN 60 529)  
Protection class: III  
Ambient temperature <sup>1)</sup>, <sup>2)</sup>: Operation:  $-30 \dots +60$  °C, Storage:  $-40 \dots +75$  °C  
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  
Typ. ambient light safety:  $\leq 30,000$  lx <sup>3)</sup>

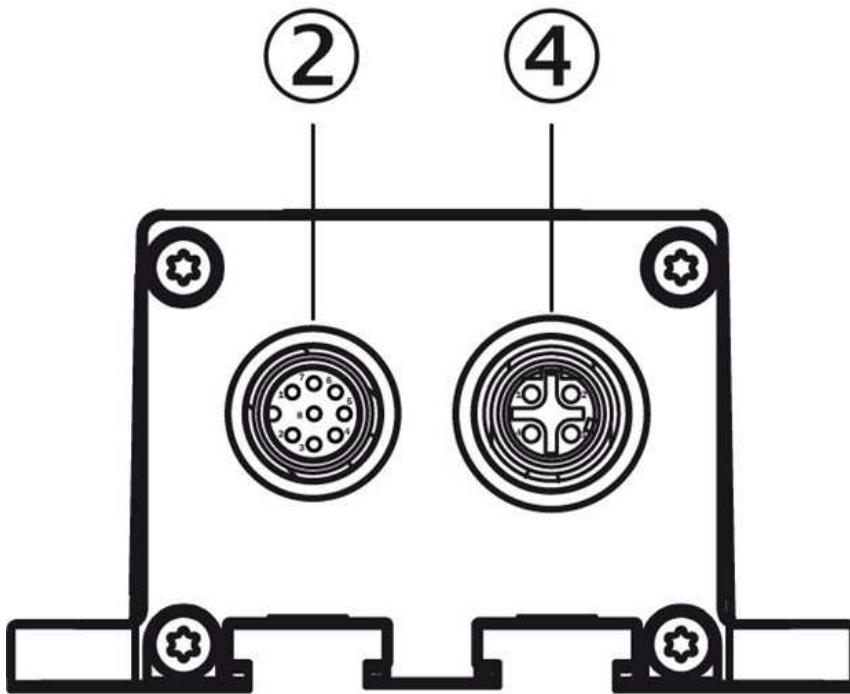
<sup>1)</sup> Temperatures  $< -20$  °C with 5 min warm up time <sup>2)</sup> Max. 95 % humidity, non-condensing <sup>3)</sup> Typ. value at  $+25$  °C ambient temperature

### Dimensional drawing

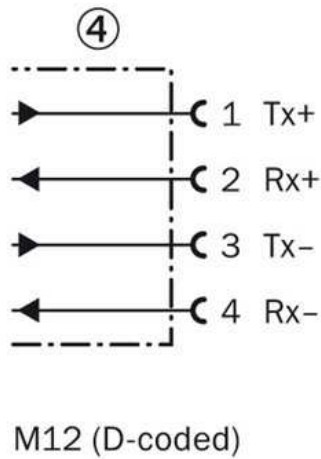
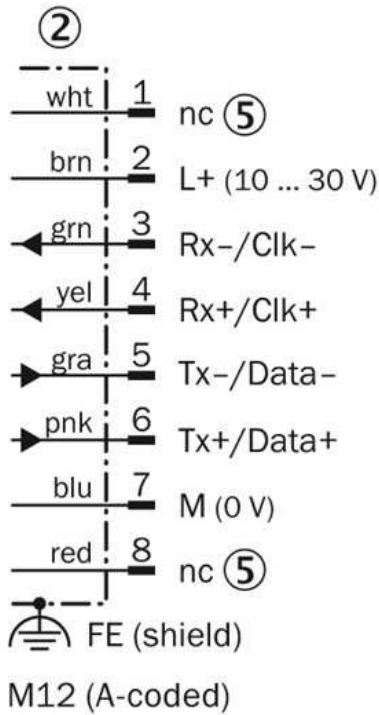


Connection type

|2| RS-422, SSI  
|4| Ethernet



Connection diagram



|2| RS-422, SSI  
|4| Ethernet  
|5| not connected

**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](http://www.sick.com)