



# OLM100-1003

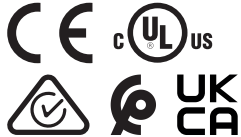
OLM

OPTICAL LINEAR MEASUREMENT SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

| Type        | part no. |
|-------------|----------|
| OLM100-1003 | 1047412  |

Other models and accessories → [www.sick.com/OLM](http://www.sick.com/OLM)

### Detailed technical data

#### Features

|                            |                                |
|----------------------------|--------------------------------|
| <b>Measuring range</b>     | 0 m ... 10,000 m <sup>1)</sup> |
| <b>Resolution</b>          | 0.1 mm, 1 mm                   |
| <b>Repeatability</b>       | 1 mm <sup>2)</sup>             |
| <b>Output time</b>         | 5 ms                           |
| <b>Light source</b>        | LED, red                       |
| <b>Max. movement speed</b> | 4 m/s                          |
| <b>Reading distance</b>    | 100 mm, ± 20 mm                |
| <b>Barcode width</b>       | 30 mm                          |

<sup>1)</sup> Dependent on the set resolution and transfer protocol.

<sup>2)</sup> Statistical error 1  $\sigma$ .

#### Interfaces

|               |           |
|---------------|-----------|
| <b>Serial</b> | ✓, RS-422 |
|---------------|-----------|

#### Electronics

|                                        |                                |
|----------------------------------------|--------------------------------|
| <b>Supply voltage <math>V_s</math></b> | DC 10 V ... 30 V <sup>1)</sup> |
| <b>Ripple</b>                          | $\leq 5 V_{pp}$ <sup>2)</sup>  |
| <b>Power consumption</b>               | < 3 W                          |
| <b>Initialization time</b>             | < 3 s                          |
| <b>Enclosure rating</b>                | IP65                           |
| <b>Protection class</b>                | III                            |

<sup>1)</sup> Limit values, reverse-polarity protected.

<sup>2)</sup> May not fall below or exceed  $U_V$  tolerances.

## Ambient data

|                                            |                                     |
|--------------------------------------------|-------------------------------------|
| <b>Electromagnetic compatibility (EMC)</b> | EN 61000-6-2 / EN 61000-6-4         |
| <b>Ambient temperature, operation</b>      | -30 °C ... +60 °C <sup>1)</sup>     |
| <b>Ambient temperature, storage</b>        | -40 °C ... +75 °C <sup>2)</sup>     |
| <b>Typ. Ambient light immunity</b>         | ≤ 5,000 lx <sup>3)</sup>            |
| <b>Vibration resistance</b>                | DIN/EN 60068-2-6, DIN/EN 60068-2-64 |
| <b>Shock resistance</b>                    | DIN/EN 60068-2-27                   |

<sup>1)</sup> Temperatures < -20 °C with 5 min warm-up time.

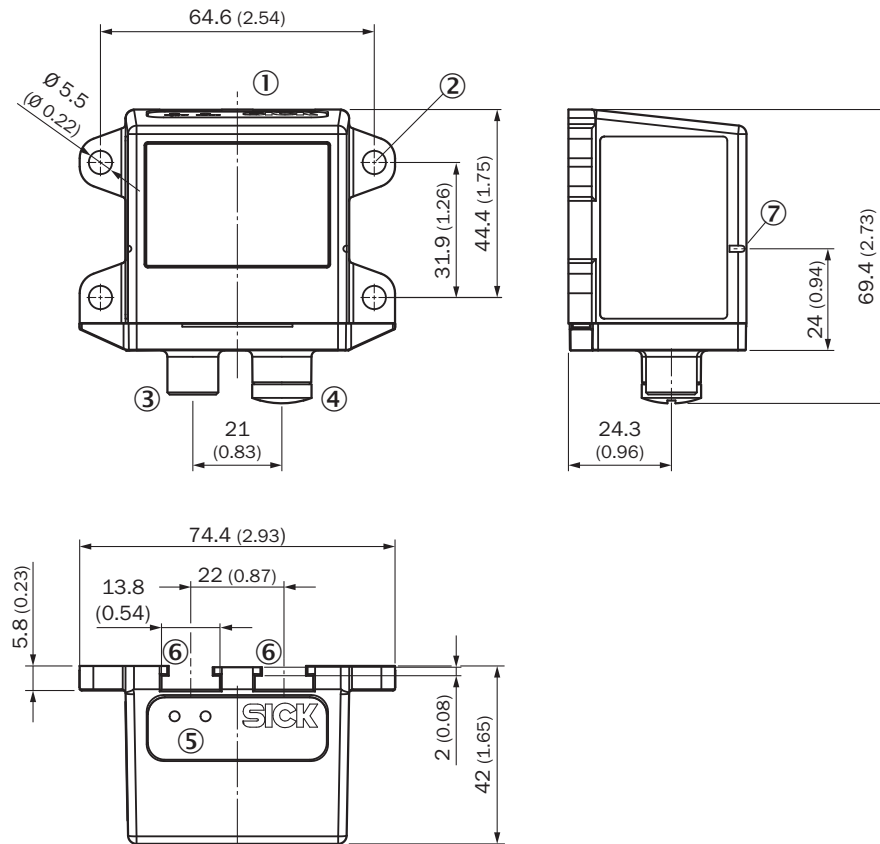
<sup>2)</sup> Max. 95 % humidity, non-condensing.

<sup>3)</sup> Typ. value at +25 °C ambient temperature.

## Certificates

|                                                                              |   |
|------------------------------------------------------------------------------|---|
| <b>EU declaration of conformity</b>                                          | ✓ |
| <b>UK declaration of conformity</b>                                          | ✓ |
| <b>ACMA declaration of conformity</b>                                        | ✓ |
| <b>Moroccan declaration of conformity</b>                                    | ✓ |
| <b>China-RoHS</b>                                                            | ✓ |
| <b>cULus certificate</b>                                                     | ✓ |
| <b>Information according to Art. 3 of Data Act (Regulation EU 2023/2854)</b> | ✓ |

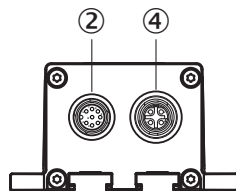
### Dimensional drawing



Dimensions in mm (inch)

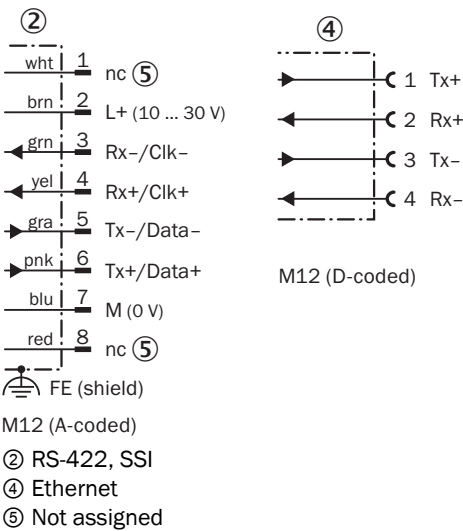
- ① Reference axis position measurement
- ② Mounting holes,  $\varnothing 5.5$  mm
- ③ Connector M12, 5-pin
- ④ Ethernet M12 female connector, 4-pin
- ⑤ status LED [status]
- ⑥ T-slot
- ⑦ Adjustment aid (slot)

### Pinouts OLM100-10x1 OLM100-10x3 1 x socket M12, 4-pin 1 x connector M12, 8-pin



- ② RS-422, SSI
- ④ Ethernet

Connection diagram OLM100-10x1 OLM100-10x3 1 x socket M12, 4-pin 1 x connector M12, 8-pin



Recommended accessories

Other models and accessories → [www.sick.com/OLM](http://www.sick.com/OLM)

|                                                                                     | Brief description                                                                                                                                                                           | Type         | part no. |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------|
| Mounting systems                                                                    |                                                                                                                                                                                             |              |          |
|  | <ul style="list-style-type: none"><li>• <b>Description:</b> Sliding nut set, M5, 4x</li><li>• <b>Packing unit:</b> 4 pieces</li><li>• <b>Items supplied:</b> Included in delivery</li></ul> | Sliding nuts | 2017550  |

|                                                                                     | Brief description                                                                                                                                                                                                                                                                                                                                                                                                                                             | Type                            | part no. |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|----------|
| connectors and cables                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                 |          |
|    | <ul style="list-style-type: none"> <li><b>Connection type head A:</b> Male connector, M12, 8-pin, straight, A-coded</li> <li><b>Description:</b> Shielded</li> <li><b>Connection systems:</b> Screw-type terminals</li> <li><b>Permitted cross-section:</b> <math>\leq 0.5 \text{ mm}^2</math></li> </ul>                                                                                                                                                     | STE-1208-GA                     | 6028370  |
|    | <ul style="list-style-type: none"> <li><b>Connection type head A:</b> Male connector, M12, 4-pin, angled, D-coded</li> <li><b>Connection type head B:</b> Male connector, RJ45, 8-pin, straight</li> <li><b>Signal type:</b> Ethernet</li> <li><b>Cable:</b> 2 m, 4-wire, CAT5, CAT5e, PUR, halogen-free</li> <li><b>Description:</b> Ethernet, shielded</li> </ul>                                                                                           | SSL-2J04-H02ME                  | 6047911  |
|    | <ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 8-pin, straight, A-coded</li> <li><b>Signal type:</b> Incremental, SSI</li> <li><b>Cable:</b> CAT5, CAT5e</li> <li><b>Description:</b> Incremental, shielded SSI</li> <li><b>Connection systems:</b> IDC quick connection</li> <li><b>Permitted cross-section:</b> <math>0.14 \text{ mm}^2 \dots 0.34 \text{ mm}^2</math></li> </ul>                             | DOS-1208-GA01                   | 6045001  |
|    | <ul style="list-style-type: none"> <li><b>Connection type head A:</b> Flying leads</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> HIPERFACE®</li> <li><b>Items supplied:</b> By the meter</li> <li><b>Cable:</b> 8-wire, twisted pair, PUR, halogen-free</li> <li><b>Description:</b> HIPERFACE®, shielded</li> <li><b>Note:</b> For DME with HIPERFACE® Interface</li> </ul>                                              | LTG-3108-MW                     | 6032456  |
|    | <ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 8-pin, angled, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 5 m, 8-wire, PVC</li> <li><b>Description:</b> Sensor/actuator cable, shielded</li> <li><b>Application:</b> Zones with chemicals, Uncontaminated zones</li> </ul>                                           | YG2A28-050VA6XLEAX              | 2096219  |
|   | <ul style="list-style-type: none"> <li><b>Connection type head A:</b> Male connector, M12, 4-pin, straight, D-coded</li> <li><b>Connection type head B:</b> Male connector, RJ45, 4-pin, straight</li> <li><b>Signal type:</b> Ethernet, PROFINET</li> <li><b>Cable:</b> 2 m, 4-wire, PUR, halogen-free</li> <li><b>Description:</b> Ethernet, shielded PROFINET</li> <li><b>Application:</b> Drag chain operation, Zones with oils and lubricants</li> </ul> | YM2D24-020P-N1MRJA4             | 2106182  |
| Codes                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                 |          |
|  | <ul style="list-style-type: none"> <li><b>Product family:</b> Positioning codes</li> <li><b>Description:</b> 30 mm, height: 60 mm, measuring range: customer-specific</li> </ul>                                                                                                                                                                                                                                                                              | Customer-specific bar code tape | 5327812  |
|                                                                                     | <ul style="list-style-type: none"> <li><b>Product family:</b> Positioning codes</li> <li><b>Description:</b> 30 mm, height: 100 mm, measuring range: customer-specific</li> </ul>                                                                                                                                                                                                                                                                             | Customer-specific bar code tape | 5327576  |
|                                                                                     | <ul style="list-style-type: none"> <li><b>Product family:</b> Positioning codes</li> <li><b>Description:</b> 30 mm, height: 25 mm, measuring range: customer-specific</li> </ul>                                                                                                                                                                                                                                                                              | Customer-specific bar code tape | 5328960  |
|                                                                                     | <ul style="list-style-type: none"> <li><b>Product family:</b> Positioning codes</li> <li><b>Description:</b> 30 mm, height: 40 mm, measuring range: customer-specific</li> </ul>                                                                                                                                                                                                                                                                              | Customer-specific bar code tape | 5323951  |
|                                                                                     | <ul style="list-style-type: none"> <li><b>Product family:</b> Positioning codes</li> <li><b>Description:</b> 30 mm, height: 30 mm, measuring range: customer-specific</li> </ul>                                                                                                                                                                                                                                                                              | Customer-specific bar code tape | 5322556  |

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

**For us, that is “Sensor Intelligence.”**

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