



# OLM200-1009

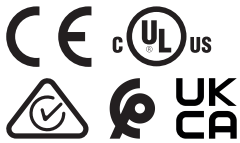
OLM

OPTICAL LINEAR MEASUREMENT SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

Type	part no.
OLM200-1009	1058126

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, 10 mm, 100 mm
<b>Repeatability</b>	0.15 mm <sup>2)</sup>
<b>Response time</b>	10 ms <sup>3)</sup>
<b>Output time</b>	2.5 ms
<b>Light source</b>	LED, red
<b>Accuracy of speed output</b>	± 5 mm/s
<b>Max. movement speed</b>	7 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 3 s, no warm-up time necessary.

<sup>3)</sup> Response time of digital output.

#### Interfaces

<b>PROFINET</b>	✓
<b>Digital input</b>	Multifunctional input MF2
<b>Digital output</b>	
Number	1 <sup>1)</sup>
Type	PNP / NPN
Function	Position, speed, control mark Q00 (off), Q01 (on), illumination on/off, service [failure (dirt/LED service life), no barcode tape, over/under temperature, out of measuring range 0 km > position > 10 km, internal error]

<sup>1)</sup> Via multifunctional output MF1.

<sup>2)</sup> Outputs MF1 short-circuit protected.

Maximum output current $I_A$	$\leq 100 \text{ mA}$ <sup>2)</sup>
------------------------------	-------------------------------------

<sup>1)</sup> Via multifunctional output MF1.

<sup>2)</sup> Outputs MF1 short-circuit protected.

## Electronics

Supply voltage $V_s$	DC 18 V ... 30 V <sup>1)</sup>
Ripple	$\leq 5 \text{ V}_{pp}$ <sup>2)</sup>
Power consumption	$< 5.5 \text{ W}$
Initialization time	10 s
Enclosure rating	IP65
Protection class	III

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

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

## Ambient data

Electromagnetic compatibility (EMC)	EN 61000-6-2 / EN 61000-6-4
Ambient temperature, operation	$-30 \text{ °C} \dots +60 \text{ °C}$ <sup>1)</sup>
Ambient temperature, storage	$-40 \text{ °C} \dots +75 \text{ °C}$ <sup>2)</sup>
Typ. Ambient light immunity	$\leq 9,000 \text{ lx}$ <sup>3)</sup>
Vibration resistance	DIN/EN 60068-2-6, DIN/EN 60068-2-64
Shock resistance	DIN/EN 60068-2-27

<sup>1)</sup> Temperatures  $< -20 \text{ °C}$  with 5 min warm-up time.

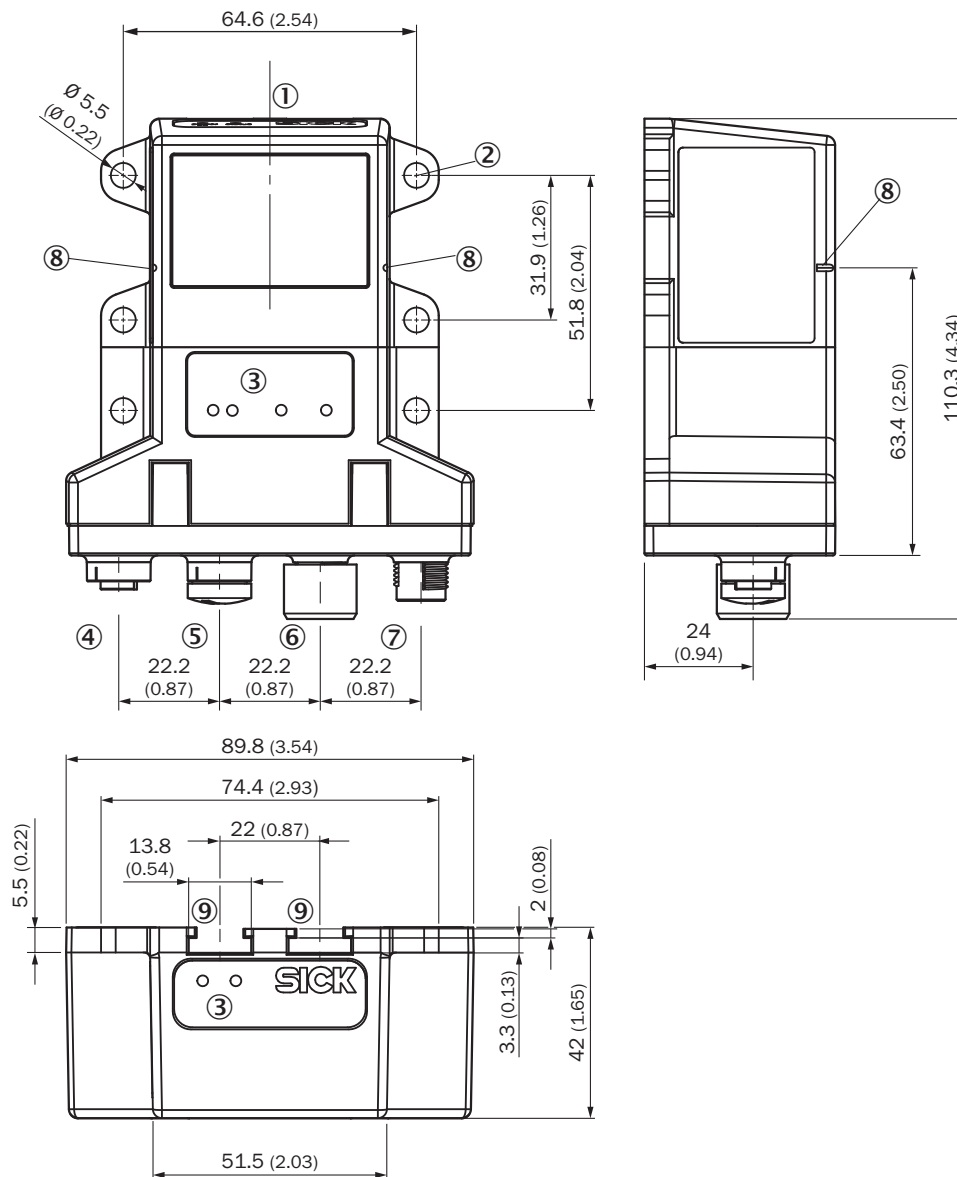
<sup>2)</sup> Max. 95 % humidity, non-condensing.

<sup>3)</sup> Typ. value at  $+25 \text{ °C}$  ambient temperature.

## Certificates

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

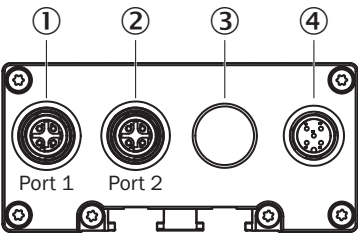
### Dimensional drawing



Dimensions in mm (inch)

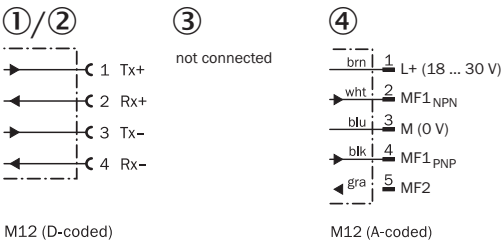
- ① Reference axis position measurement
- ② Mounting holes
- ③ status LED [status]
- ④ Ethernet port 1, M12 female connector, 4-pin
- ⑤ EtherNet port 2, socket M12, 4-pin
- ⑥ Not assigned
- ⑦ Connector M12, 5-pin
- ⑧ Adjustment aid (slot)
- ⑨ T-slot

Connection type



- ① Ethernet port 1, M12 female connector, 4-pin
- ② EtherNet port 2, socket M12, 4-pin
- ③ Not assigned
- ④ Connector M12, 5-pin


Connection diagram





- ① Ethernet, M12 female connector, 4-pin
- ② Ethernet, M12 female connector, 4-pin
- ③ Not assigned
- ④ Connector M12, 5-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> Female connector, M12, 4-pin, straight, D-coded</li> <li>• <b>Signal type:</b> Ethernet</li> <li>• <b>Cable:</b> CAT5, CAT5e</li> <li>• <b>Description:</b> Ethernet, shielded</li> <li>• <b>Connection systems:</b> IDC quick connection</li> <li>• <b>Permitted cross-section:</b> 0.14 mm<sup>2</sup> ... 0.34 mm<sup>2</sup></li> </ul>	DOS-1204-GE	6048153
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Male connector, RJ45, 4-pin, straight</li> <li>• <b>Signal type:</b> Ethernet, PROFINET</li> <li>• <b>Cable:</b> CAT5, CAT5e</li> <li>• <b>Description:</b> Ethernet, shieldedPROFINET</li> <li>• <b>Connection systems:</b> IDC quick connection</li> <li>• <b>Permitted cross-section:</b> 4 mm<sup>2</sup> ... 8 mm<sup>2</sup></li> </ul>	STE-0J04-GZ	6048260
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Male connector, M12, 4-pin, straight, D-coded</li> <li>• <b>Signal type:</b> Ethernet</li> <li>• <b>Cable:</b> CAT5, CAT5e</li> <li>• <b>Description:</b> Ethernet, shielded</li> <li>• <b>Connection systems:</b> IDC quick connection</li> <li>• <b>Permitted cross-section:</b> 0.14 mm<sup>2</sup> ... 0.34 mm<sup>2</sup></li> </ul>	STE-1204-GE01	6048151
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Male connector, M12, 4-pin, angled, D-coded</li> <li>• <b>Signal type:</b> Ethernet</li> <li>• <b>Cable:</b> CAT5, CAT5e</li> <li>• <b>Description:</b> Ethernet, shielded</li> <li>• <b>Connection systems:</b> IDC quick connection</li> <li>• <b>Permitted cross-section:</b> 0.14 mm<sup>2</sup> ... 0.34 mm<sup>2</sup></li> </ul>	STE-1204-WE	6048152
	<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, M12, 4-pin, straight, D-coded</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-N1M2D24	2106159
	<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
	<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, M12, 4-pin, angled, D-coded</li> <li>• <b>Signal type:</b> Ethernet, PROFINET</li> <li>• <b>Cable:</b> 5 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>	YM2D24-050P-N1N2D24	2106166
	<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, 4-pin, straight</li> <li>• <b>Signal type:</b> Ethernet, PROFINET</li> <li>• <b>Cable:</b> 5 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>	YN2D24-050P-N1MRJA4	2106163
	<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> Flying leads</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-N1XLEAX	2106171
	<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> Flying leads</li> <li>• <b>Signal type:</b> Ethernet, PROFINET</li> <li>• <b>Cable:</b> 5 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>	YN2D24-050P-N1XLEAX	2106175

	Brief description	Type	part no.
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.”**

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)