



# OLM200-1008

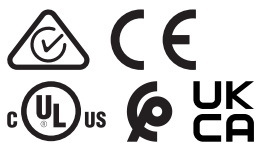
OLM

OPTICAL LINEAR MEASUREMENT SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

Type	part no.
OLM200-1008	1058813

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 required.

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

#### Interfaces

<b>EtherNet/IP™</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>
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<sup>1)</sup> Via multifunctional output MF1.

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

## Electronics

<b>Supply voltage <math>V_s</math></b>	DC 18 V ... 30 V <sup>1)</sup>
<b>Ripple</b>	$\leq 5 \text{ V}_{pp}$ <sup>2)</sup>
<b>Power consumption</b>	$< 5.5 \text{ W}$
<b>Initialization time</b>	10 s
<b>Enclosure rating</b>	IP65 (EN 60 529)
<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 <sup>1)</sup>
<b>Ambient temperature, operation</b>	$-30 \text{ }^\circ\text{C} \dots +60 \text{ }^\circ\text{C}$ <sup>2)</sup>
<b>Ambient temperature, storage</b>	$-40 \text{ }^\circ\text{C} \dots +75 \text{ }^\circ\text{C}$ <sup>3)</sup>
<b>Typ. Ambient light immunity</b>	$\leq 5,000 \text{ lx}$ <sup>4)</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> This is a Class A device. This device can cause radio interference in living quarters.

<sup>2)</sup> Temperatures  $< -20 \text{ }^\circ\text{C}$  with 5 min warm up time.

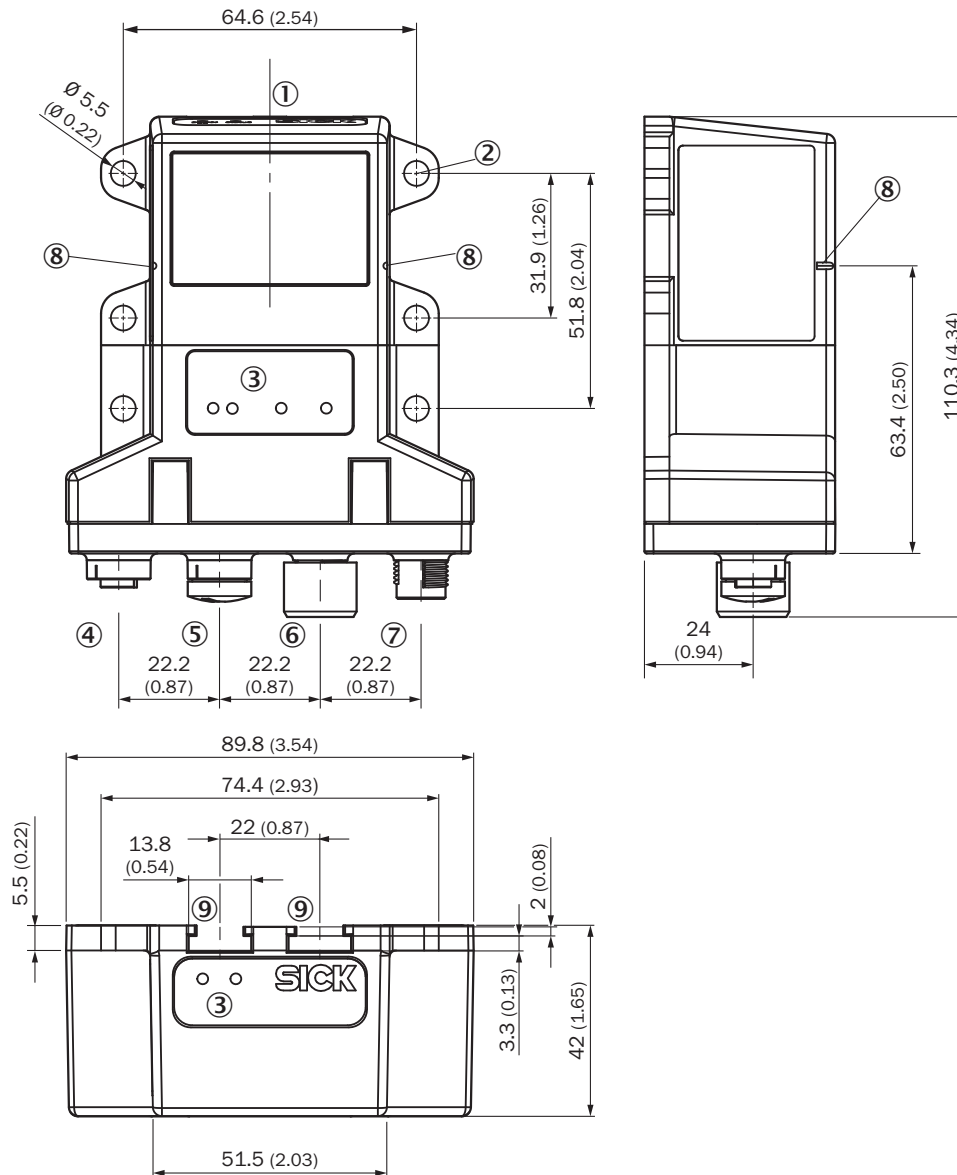
<sup>3)</sup> Max. 95 % humidity, non-condensing.

<sup>4)</sup> Typ. value at  $+25 \text{ }^\circ\text{C}$  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>Ethernet/IP certificate</b>	✓

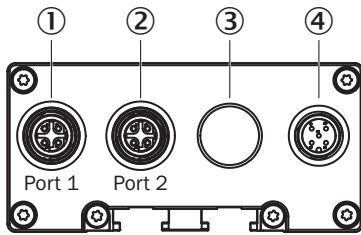
### Dimensional drawing



Dimensions in mm (inch)

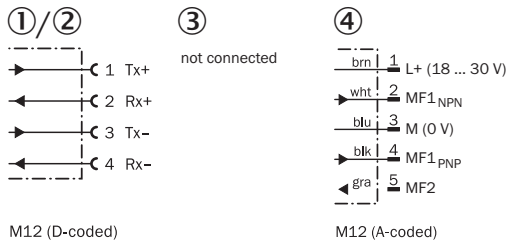
- ① Reference axis position measurement
- ② Mounting holes
- ③ status LED [status]
- ④ Ethernet port 1, M12 female connector, 4-pin
- ⑤ EtherNet port 2, socket M12, 4-pin
- ⑥ Not assigned
- ⑦ Connector M12, 5-pin
- ⑧ Adjustment aid (slot)
- ⑨ T-slot

## 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

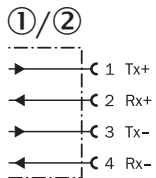


M12 (D-coded)

M12 (A-coded)

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

## Ethernet connection diagram



M12 (D-coded)



- ① Ethernet port 1, M12 female connector, 4-pin
- ② Ethernet port 1, M12 female connector, 4-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, Head A: female connector, M12, 4-pin, straight, D-coded, shielded, for cable diameter 4 mm ... 8 mm Head B: -</li> <li><b>Connection systems:</b> IDC quick connection</li> <li><b>Permitted cross-section:</b> 0.14 mm² ... 0.34 mm²</li> </ul>	DOS-1204-GE	6048153
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, straight</li> <li><b>Connection type head B:</b> Male connector, M12, 4-pin, straight</li> <li><b>Signal type:</b> Ethernet</li> <li><b>Cable:</b> 4-wire</li> <li><b>Description:</b> Ethernet, unshielded</li> <li><b>Note:</b> Connection cable, extension cable 1:1, shielded, for TTK70 inspector</li> </ul>	EtherNet/IP adapter	2044264
	<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</li> <li><b>Cable:</b> 2 m, 4-wire, CAT5, CAT5e, PUR, halogen-free</li> <li><b>Description:</b> Ethernet, shielded, 2 m cable, M12 male connector straight to M12 male connector straight</li> </ul>	SSL-1204-G02ME90	6045222
	<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, 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, Head A: male connector, M12, 4-pin, straight, D coded Head B: male connector, RJ45, 8-pin, straight Cable: PUR, halogen-free, shielded, 2 x 2 x 0.14 mm², Ø 6.4 mm</li> </ul>	SSL-2J04-G02ME60	6047916
	<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> 5 m, 4-wire, CAT5, CAT5e, PUR, halogen-free</li> <li><b>Description:</b> Ethernet, shielded, Head A: male connector, M12, 4-pin, angled, D-coded Head B: male connector, RJ45, 8-pin, straight Cable: PUR, halogen-free, shielded, 2 x 2 x 0.14 mm², Ø 6.4 mm</li> </ul>	SSL-2J04-H05ME	6045287
	<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, shielded, Head A: male connector, RJ45, 4-pin, straight, shielded, PROFINET, EtherCAT, for cable diameter 4.5 mm ... 8 mmPROFINET</li> <li><b>Connection systems:</b> IDC quick connection</li> <li><b>Permitted cross-section:</b> 4 mm² ... 8 mm²</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, Head A: male connector, M12, 4-pin, straight, D coded, shielded, for cable diameter 4 mm ... 8 mm Head B: -</li> <li><b>Connection systems:</b> IDC quick connection</li> <li><b>Permitted cross-section:</b> 0.14 mm² ... 0.34 mm²</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, Head A: male connector, M12, 4-pin, angled, D coded, shielded, for cable diameter 4 mm ... 8 mm Head B: -</li> <li><b>Connection systems:</b> IDC quick connection</li> <li><b>Permitted cross-section:</b> 0.14 mm² ... 0.34 mm²</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> Flying leads</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, M12 male connector D-coded straight to open end</li> </ul>	STL-1204-G02ME90	6045284
	<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</li> <li><b>Cable:</b> 5 m, 4-wire, CAT5, CAT5e, PUR, halogen-free</li> <li><b>Description:</b> Ethernet, shielded, M12 male connector D-coded angled to open end</li> </ul>	STL-1204-W05ME90	6047913

	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



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