



OLM200-1009

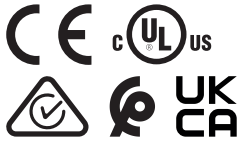
OLM

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

Detailed technical data

Safety-related parameters

MTTF_D (mean time to dangerous failure)	> 100 years
DC_{avg} (average diagnostic coverage)	0 %

Features

Measuring range	0 m ... 10,000 m ¹⁾
Resolution	0.1 mm, 1 mm, 10 mm, 100 mm
Repeatability	0.15 mm ²⁾
Response time	10 ms ³⁾
Output time	2.5 ms
Light source	LED, red
Accuracy of speed output	± 5 mm/s
Max. movement speed	7 m/s
Reading distance	100 mm, ± 20 mm
Barcode width	30 mm

¹⁾ Dependent on the set resolution and transfer protocol.

²⁾ Statistical error 3 s, no warm-up time necessary.

³⁾ Response time of digital output.

Interfaces

PROFINET	✓
Digital input	Multifunctional input MF2
Digital output	
Number	1 ¹⁾

¹⁾ Via multifunctional output MF1.

²⁾ Outputs MF1 short-circuit protected.

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]
Maximum output current I _A	≤ 100 mA ²⁾

¹⁾ Via multifunctional output MF1.

²⁾ Outputs MF1 short-circuit protected.

Electronics

Supply voltage V _s	DC 18 V ... 30 V ¹⁾
Ripple	≤ 5 V _{pp} ²⁾
Power consumption	< 5.5 W
Initialization time	10 s
Enclosure rating	IP65
Protection class	III

¹⁾ Limit values, reverse-polarity protected.

²⁾ May not fall below or exceed U_y tolerances.

Ambient data

Electromagnetic compatibility (EMC)	EN 61000-6-2 / EN 61000-6-4
Ambient temperature, operation	-30 °C ... +60 °C ¹⁾
Ambient temperature, storage	-40 °C ... +75 °C ²⁾
Typ. Ambient light immunity	≤ 9,000 lx ³⁾
Vibration resistance	DIN/EN 60068-2-6, DIN/EN 60068-2-64
Shock resistance	DIN/EN 60068-2-27

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

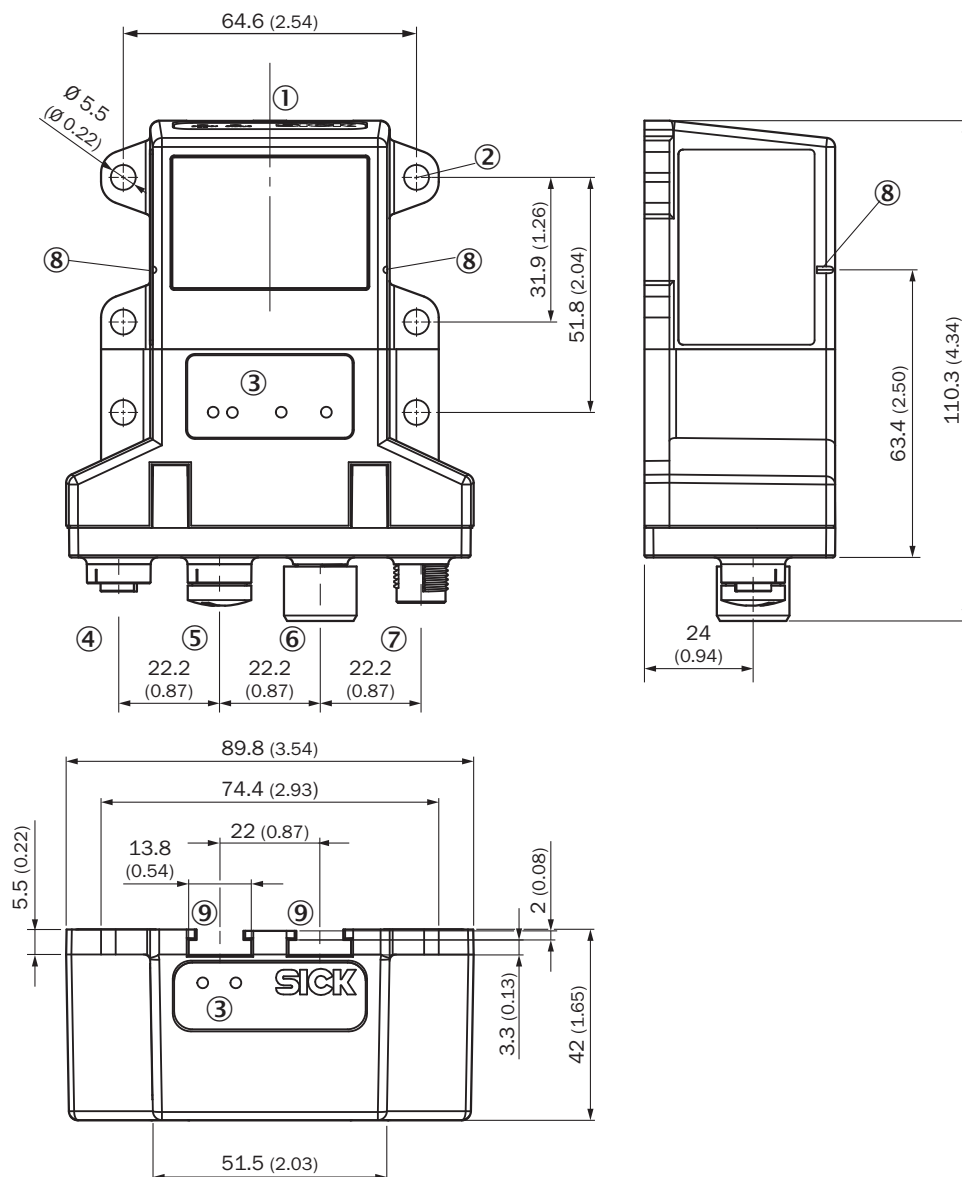
²⁾ Max. 95 % humidity, non-condensing.

³⁾ Typ. value at +25 °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)	✓

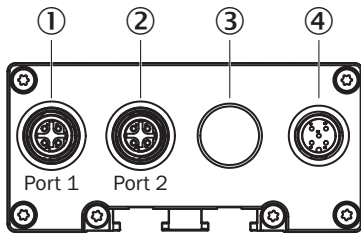
Dimensional drawing



Dimensions in mm (inch)

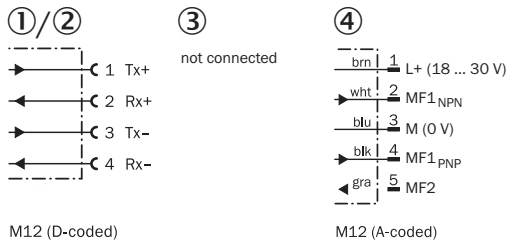
- ① Reference axis position measurement
- ② Mounting holes
- ③ status LED [status]
- ④ Ethernet port 1, M12 socket, 4-pin
- ⑤ EtherNet port 2, socket M12, 4-pin
- ⑥ Not assigned
- ⑦ M12 device connector plug, 5-pin
- ⑧ Adjustment aid (slot)
- ⑨ T-slot

Pinouts OLM200-10x8 / OLM200-10x9



- ① M12 socket, 4-pin, Ethernet interface 1
- ② M12 socket, 4-pin, Ethernet interface 2
- ③ Not assigned
- ④ M12 male connector, 5-pin


Connection diagram








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

Recommended accessories

Other models and accessories → www.sick.com/OLM

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

	Brief description	Type	part no.
connectors and cables			
	<ul style="list-style-type: none"> Description: Ethernet, shielded Connection type head A: Female connector, M12, 4-pin, straight, D-coded Signal type: Ethernet Cable: CAT5, CAT5e Connection systems: IDC quick connection Permitted cross-section: 0.14 mm² ... 0.34 mm² 	DOS-1204-GE	6048153
	<ul style="list-style-type: none"> Description: Ethernet, shielded, PROFINET Connection type head A: Male connector, RJ45, 4-pin, straight, EIA/TIA 568A/B Signal type: Ethernet, PROFINET Cable: CAT5, CAT5e Connection systems: IDC quick connection Permitted cross-section: 4 mm² ... 8 mm² 	STE-0J04-GZ	6048260
	<ul style="list-style-type: none"> Description: Ethernet, shielded Connection type head A: Male connector, M12, 4-pin, straight, D-coded Signal type: Ethernet Cable: CAT5, CAT5e Connection systems: IDC quick connection Permitted cross-section: 0.14 mm² ... 0.34 mm² 	STE-1204-GE01	6048151
	<ul style="list-style-type: none"> Description: Ethernet, shielded Connection type head A: Male connector, M12, 4-pin, angled, D-coded Signal type: Ethernet Cable: CAT5, CAT5e Connection systems: IDC quick connection Permitted cross-section: 0.14 mm² ... 0.34 mm² 	STE-1204-WE	6048152
	<ul style="list-style-type: none"> Connection type head A: Male connector, M12, 4-pin, straight, D-coded Connection type head B: Male connector, M12, 4-pin, straight, D-coded Signal type: Ethernet, PROFINET Cable: 2 m, 4-wire, PUR, halogen-free Description: Ethernet, shielded, PROFINET Application: Drag chain operation, Zones with oils and lubricants 	YM2D24-020P-N1M2D24	2106159
	<ul style="list-style-type: none"> Connection type head A: Male connector, M12, 4-pin, straight, D-coded Connection type head B: Male connector, RJ45, 4-pin, straight Signal type: Ethernet, PROFINET Cable: 2 m, 4-wire, PUR, halogen-free Description: Ethernet, shielded, PROFINET Application: Drag chain operation, Zones with oils and lubricants 	YM2D24-020P-N1MRJA4	2106182
	<ul style="list-style-type: none"> Connection type head A: Male connector, M12, 4-pin, straight, D-coded Connection type head B: Male connector, M12, 4-pin, angled, D-coded Signal type: Ethernet, PROFINET Cable: 5 m, 4-wire, PUR, halogen-free Description: Ethernet, shielded, PROFINET Application: Drag chain operation, Zones with oils and lubricants 	YM2D24-050P-N1N2D24	2106166
	<ul style="list-style-type: none"> Connection type head A: Male connector, M12, 4-pin, angled, D-coded Connection type head B: Male connector, RJ45, 4-pin, straight Signal type: Ethernet, PROFINET Cable: 5 m, 4-wire, PUR, halogen-free Description: Ethernet, shielded, PROFINET Application: Drag chain operation, Zones with oils and lubricants 	YN2D24-050P-N1MRJA4	2106163
	<ul style="list-style-type: none"> Connection type head A: Male connector, M12, 4-pin, straight, D-coded Connection type head B: Flying leads Signal type: Ethernet, PROFINET Cable: 2 m, 4-wire, PUR, halogen-free Description: Ethernet, shielded, PROFINET Application: Drag chain operation, Zones with oils and lubricants 	YM2D24-020P-N1XLEAX	2106171
	<ul style="list-style-type: none"> Connection type head A: Male connector, M12, 4-pin, angled, D-coded Connection type head B: Flying leads Signal type: Ethernet, PROFINET Cable: 5 m, 4-wire, PUR, halogen-free Description: Ethernet, shielded, PROFINET Application: Drag chain operation, Zones with oils and lubricants 	YN2D24-050P-N1XLEAX	2106175

	Brief description	Type	part no.
Codes			
	<ul style="list-style-type: none"> Description: 30 mm, height: 60 mm, measuring range: customer-specific Suitable for: OLM100/OLM200-1x0x 	Customer-specific bar code tape	5327812
	<ul style="list-style-type: none"> Description: 30 mm, height: 100 mm, measuring range: customer-specific Suitable for: OLM100/OLM200-1x0x 	Customer-specific bar code tape	5327576
	<ul style="list-style-type: none"> Description: 30 mm, height: 25 mm, measuring range: customer-specific Suitable for: OLM100/OLM200-1x0x 	Customer-specific bar code tape	5328960
	<ul style="list-style-type: none"> Description: 30 mm, height: 40 mm, measuring range: customer-specific Suitable for: OLM100/OLM200-1x0x 	Customer-specific bar code tape	5323951
	<ul style="list-style-type: none"> Description: 30 mm, height: 30 mm, measuring range: customer-specific Suitable for: OLM100/OLM200-1x0x 	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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