



OLM200-1009

OLM200

LINEAR MEASUREMENT SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
OLM200-1009	1058126

Other models and accessories → www.sick.com/OLM200



Detailed technical data

Performance

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

¹⁾ Statistical error 3 s, no warm-up time required.

²⁾ Response time of switching output.

³⁾ Dependent on the set resolution and transfer protocol.

Interfaces

Data transmission rate	100 Mbit/s
Switching output	Multifunctional output MF1: PNP, Multifunctional output MF1: NPN ¹⁾
Data interface	PROFINET IO/RT ²⁾
Switching input	Multifunctional input MF2

¹⁾ Functions of switching output MF1 PNP/MF1 NPN: position, speed, control mark Q00 (off), Q01 (on), illumination on/off, service [prefailure (dirt/LED life time), no bar code tape, over/under temperature, out of range 0 km > position > 10 km, internal error].

²⁾ Conformance Class B, PN specification V2.25.

Mechanics/electronics

Supply voltage V_s	DC 18 V ... 30 V ¹⁾
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¹⁾ Limit values, reverse-polarity protected.

²⁾ May not exceed or fall below U_v tolerances.

³⁾ Switching outputs MF1 short-circuit protected.

Ripple	$\leq 5 V_{pp}^{2)}$
Power consumption	$< 5.5 W$
Initialization time	10 s
Housing material	Magnesium Zinc
Weight	Approx. 291 g
Output current I_A	$\leq 100 mA^{3)}$

¹⁾ Limit values, reverse-polarity protected.

²⁾ May not exceed or fall below U_V tolerances.

³⁾ Switching outputs MF1 short-circuit protected.

Ambient data

Enclosure rating	IP 65 (EN 60 529)
Protection class	III
Electromagnetic compatibility (EMC)	EN 61000-6-2 EN 61000-6-4
Ambient temperature	Operation: $-30\text{ °C} \dots +60\text{ °C}^{1)}$ Storage: $-40\text{ °C} \dots +75\text{ °C}^{2)}$
Typ. Ambient light immunity	$\leq 30,000\text{ lx}^{3)}$
Vibration resistance	DIN/EN 60068-2-6, DIN/EN 60068-2-64
Shock resistance	DIN/EN 60068-2-27

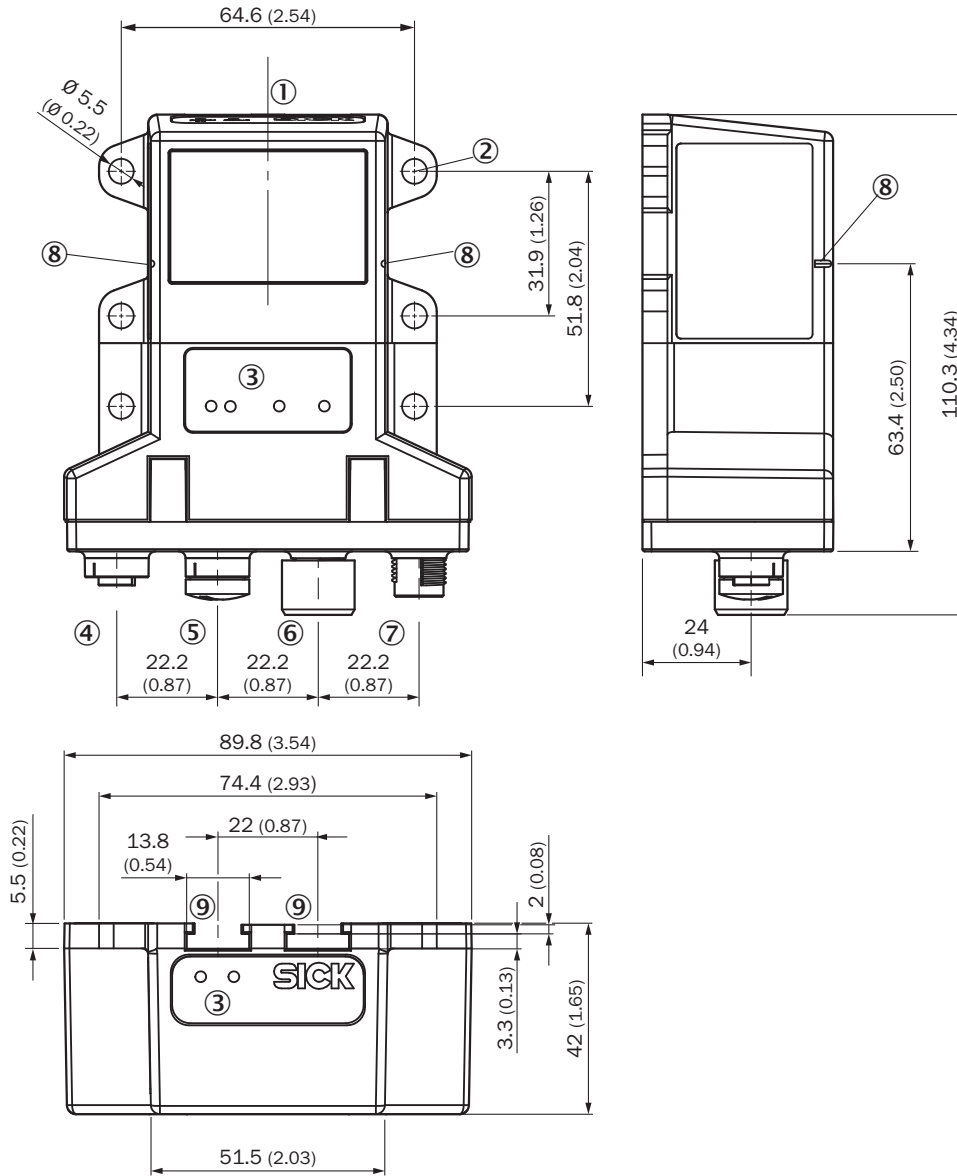
¹⁾ Temperatures $< -20\text{ °C}$ with 5 min warm up time.

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

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

Dimensional drawing (Dimensions in mm (inch))

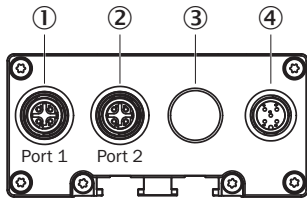
OLM200, PROFINET, Ethernet, EtherCat



- 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

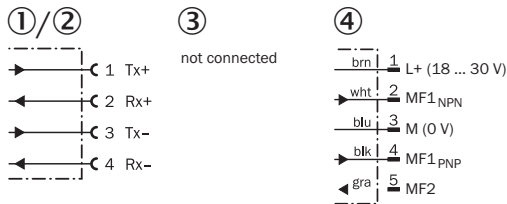
Connection type

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

Recommended accessories

Other models and accessories → www.sick.com/OLM200

	Brief description	Type	Part no.
Other mounting accessories			
	4 pieces, Sliding nut set, M5, 4x, Included in delivery	Sliding nuts	2017550
Plug connectors and cables			
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: cable Cable: PROFINET, PVC, shielded, 2 m	STL-1204-G02MZ90	6048247
	Head A: male connector, M12, 4-pin, angled, D-coded Head B: cable Cable: PROFINET, PVC, shielded, 5 m	STL-1204-W05MZ90	6048257
	Head A: male connector, M12, 4-pin, angled, D-coded Head B: male connector, M12, 4-pin, straight Cable: PROFINET, PVC, shielded, 5 m	SSL-1204-F05MZ90	6048251
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, M12, 4-pin, straight Cable: PROFINET, PVC, shielded, 2 m	SSL-1204-G02MZ90	6048241

	Brief description	Type	Part no.
	Head A: male connector, RJ45, 4-pin, straight Head B: male connector, M12, 4-pin, angled, D-coded Cable: PROFINET, EtherCAT, PVC, shielded, 5 m	SSL-2J04-F05MZ	6048254
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, RJ45, 4-pin, straight Cable: PROFINET, PVC, shielded, 2 m	SSL-2J04-G02MZ60	6048244
	Head A: female connector, M12, 4-pin, straight, D-coded Head B: - Cable: EtherNet/IP, shielded	DOS-1204-GE	6048153
	Head A: male connector, RJ45, 4-pin, straight Cable: Ethernet, PROFINET, EtherCAT, shielded	STE-0J04-GZ	6048260
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: - Cable: EtherNet/IP, shielded	STE-1204-GE01	6048151
	Head A: male connector, M12, 4-pin, angled, D-coded Head B: - Cable: EtherNet/IP, shielded	STE-1204-WE	6048152

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:

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