OLM200-1009

OLM

OPTICAL LINEAR MEASUREMENT SENSORS

OLM200-1009 | OLM

OPTICAL LINEAR MEASUREMENT SENSORS

Illustration may differ

Ordering information

Type	part no.
OLM200-1009	1058126

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

Detailed technical data

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]
	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]

[1] Via multifunctional output MF1.

[2] Outputs MF1 short-circuit protected.

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 (EN 60 529)
Protection class	III

[1] Limit values, reverse-polarity protected.

[2] May not fall below or exceed U_V tolerances.

Ambient data

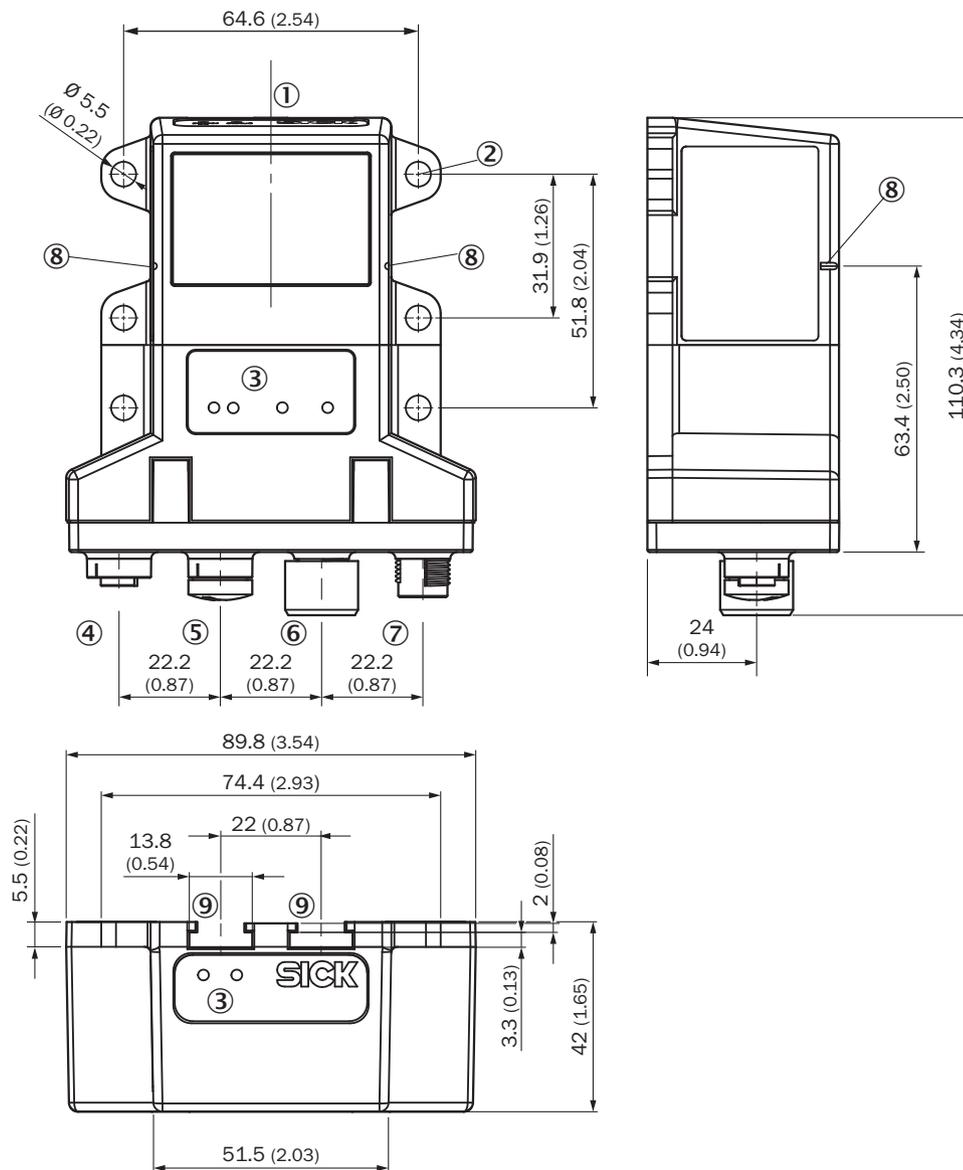|	
Electromagnetic compatibility (EMC)	EN 61000-6-2 / EN 61000-6-4
Ambient temperature, operation	–30 °C … +60 °C [1]
Ambient temperature, storage	–40 °C … +75 °C [2]
Typ. Ambient light immunity	≤ 5,000 lx [3]
Vibration resistance	DIN/EN 60068-2-6, DIN/EN 60068-2-64
Shock resistance	DIN/EN 60068-2-27

[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 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

Brief description		Type	part no.
Mounting systems			
	• **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			
	• **Connection type head A:** Female connector, M12, 4-pin, straight, D-coded • **Signal type:** Ethernet • **Cable:** CAT5, CAT5e • **Description:** Ethernet, shielded • **Connection systems:** IDC quick connection • **Permitted cross-section:** 0.14 mm² ... 0.34 mm²	DOS-1204-GE	6048153
	• **Connection type head A:** Male connector, RJ45, 4-pin, straight • **Signal type:** Ethernet, PROFINET • **Cable:** CAT5, CAT5e • **Description:** Ethernet, shieldedPROFINET • **Connection systems:** IDC quick connection • **Permitted cross-section:** 4 mm² ... 8 mm²	STE-0J04-GZ	6048260
	• **Connection type head A:** Male connector, M12, 4-pin, straight, D-coded • **Signal type:** Ethernet • **Cable:** CAT5, CAT5e • **Description:** Ethernet, shielded • **Connection systems:** IDC quick connection • **Permitted cross-section:** 0.14 mm² ... 0.34 mm²	STE-1204-GE01	6048151
	• **Connection type head A:** Male connector, M12, 4-pin, angled, D-coded • **Signal type:** Ethernet • **Cable:** CAT5, CAT5e • **Description:** Ethernet, shielded • **Connection systems:** IDC quick connection • **Permitted cross-section:** 0.14 mm² ... 0.34 mm²	STE-1204-WE	6048152
	• **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, shieldedPROFINET • **Application:** Drag chain operation, Zones with oils and lubricants	YM2D24-020P-N1M2D24	2106159
	• **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, shieldedPROFINET • **Application:** Drag chain operation, Zones with oils and lubricants	YM2D24-020P-N1MRJA4	2106182
	• **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, shieldedPROFINET • **Application:** Drag chain operation, Zones with oils and lubricants	YM2D24-050P-N1N2D24	2106166
	• **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, shieldedPROFINET • **Application:** Drag chain operation, Zones with oils and lubricants	YN2D24-050P-N1MRJA4	2106163
	• **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, shieldedPROFINET • **Application:** Drag chain operation, Zones with oils and lubricants	YM2D24-020P-N1XLEAX	2106171
	• **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, shieldedPROFINET • **Application:** Drag chain operation, Zones with oils and lubricants	YN2D24-050P-N1XLEAX	2106175

Brief description	Type	part no.
Codes		
• **Product family:** Positioning codes • **Description:** 30 mm, height: 60 mm, measuring range: customer-specific	Customer-specific bar code tape	5327812
• **Product family:** Positioning codes • **Description:** 30 mm, height: 100 mm, measuring range: customer-specific	Customer-specific bar code tape	5327576
• **Product family:** Positioning codes • **Description:** 30 mm, height: 25 mm, measuring range: customer-specific	Customer-specific bar code tape	5328960
• **Product family:** Positioning codes • **Description:** 30 mm, height: 40 mm, measuring range: customer-specific	Customer-specific bar code tape	5323951
• **Product family:** Positioning codes • **Description:** 30 mm, height: 30 mm, measuring range: customer-specific	Customer-specific bar code tape	5322556

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