



OLM100-1003

OLM

OPTICAL LINEAR MEASUREMENT SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	part no.
OLM100-1003	1047412

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
Repeatability	1 mm ²⁾
Output time	5 ms
Light source	LED, red
Max. movement speed	4 m/s
Reading distance	100 mm, ± 20 mm
Barcode width	30 mm

¹⁾ Dependent on the set resolution and transfer protocol.

²⁾ Statistical error 1 σ .

Interfaces

Serial	✓, RS-422
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Electronics

Supply voltage V_s	DC 10 V ... 30 V ¹⁾
Ripple	$\leq 5 V_{pp}$ ²⁾
Power consumption	< 3 W
Initialization time	< 3 s
Enclosure rating	IP65
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.

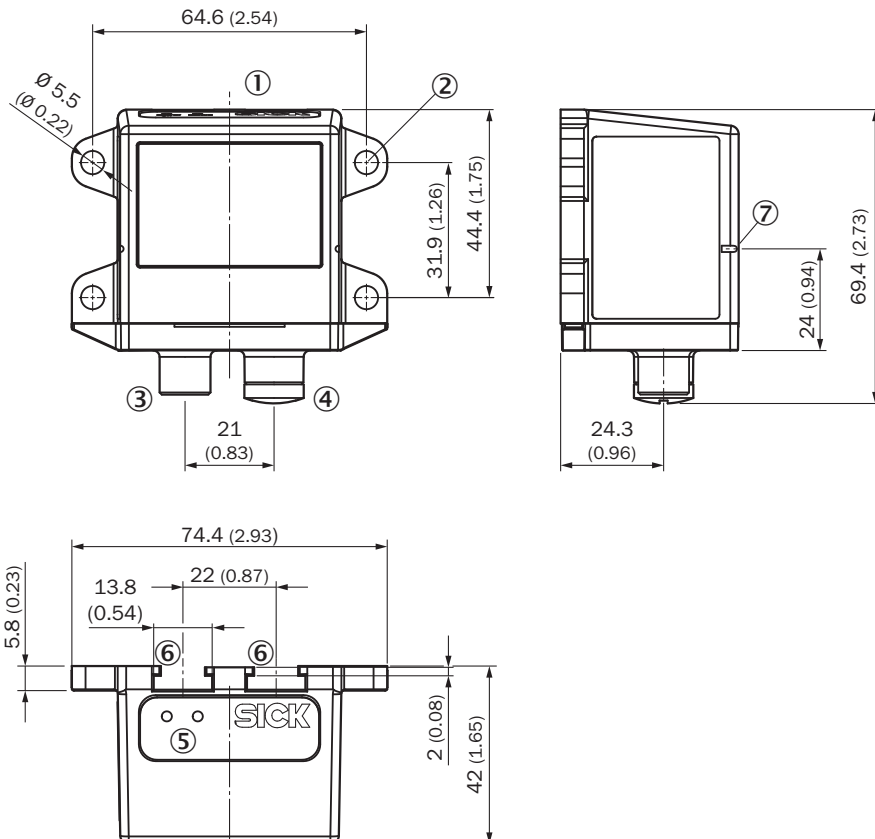
²⁾ Max. 95 % humidity, non-condensing.

³⁾ Typ. value at +25 °C ambient temperature.

Certificates

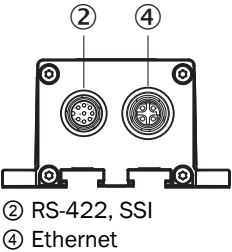
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China-RoHS	✓
cULus certificate	✓

Dimensional drawing

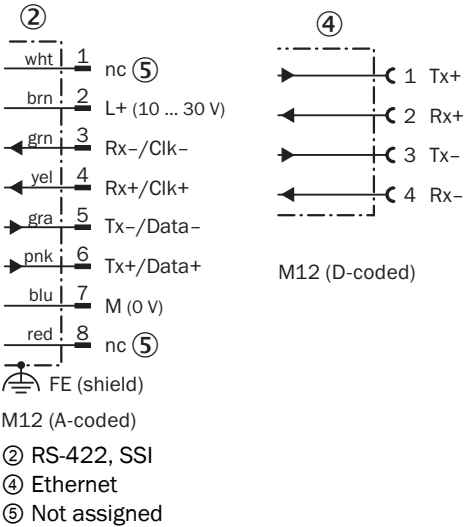


- Dimensions in mm (inch)
- ① Reference axis position measurement
 - ② Mounting holes, Ø 5.5 mm
 - ③ Connector M12, 5-pin
 - ④ Ethernet M12 female connector, 4-pin
 - ⑤ status LED [status]
 - ⑥ T-slot
 - ⑦ Adjustment aid (slot)

Pinouts OLM100-10x1 OLM100-10x3 1 x socket M12, 4-pin 1 x connector M12, 8-pin




Connection diagram OLM100-10x1 OLM100-10x3 1 x socket M12, 4-pin 1 x connector M12, 8-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"> Connection type head A: Male connector, M12, 8-pin, straight, A-coded Description: Shielded Connection systems: Screw-type terminals Permitted cross-section: ≤ 0.5 mm² 	STE-1208-GA	6028370
	<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, 8-pin, straight Signal type: Ethernet Cable: 2 m, 4-wire, CAT5, CAT5e, PUR, halogen-free Description: 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 	SSL-2J04-H02ME	6047911
	<ul style="list-style-type: none"> Connection type head A: Female connector, M12, 8-pin, straight, A-coded Signal type: Incremental, SSI Cable: CAT5, CAT5e Description: Incremental, shielded, Head A: female connector, M12, 8-pin, straight, A encoded, shielded, for cable diameter 4 mm ... 8 mm Head B: - Operating temperature: -40 °C ... +85 °C SSI Connection systems: IDC quick connection Permitted cross-section: 0.14 mm² ... 0.34 mm² 	DOS-1208-GA01	6045001
	<ul style="list-style-type: none"> Connection type head A: Flying leads Connection type head B: Flying leads Signal type: HIPERFACE® Items supplied: By the meter Cable: 8-wire, twisted pair, PUR, halogen-free Description: HIPERFACE®, shielded Note: For DME with HIPERFACE® Interface 	LTG-3108-MW	6032456
	<ul style="list-style-type: none"> Connection type head A: Female connector, M12, 8-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 8-wire, PVC Description: Sensor/actuator cable, shielded Application: Zones with chemicals, Uncontaminated zones 	YG2A28-050VA6XLEAX	2096219
	<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
Codes			
	<ul style="list-style-type: none"> Product family: Positioning codes Description: 30 mm, height: 60 mm, measuring range: customer-specific 	Customer-specific bar code tape	5327812
	<ul style="list-style-type: none"> Product family: Positioning codes Description: 30 mm, height: 100 mm, measuring range: customer-specific 	Customer-specific bar code tape	5327576
	<ul style="list-style-type: none"> Product family: Positioning codes Description: 30 mm, height: 25 mm, measuring range: customer-specific 	Customer-specific bar code tape	5328960
	<ul style="list-style-type: none"> Product family: Positioning codes Description: 30 mm, height: 40 mm, measuring range: customer-specific 	Customer-specific bar code tape	5323951
	<ul style="list-style-type: none"> Product family: Positioning codes Description: 30 mm, height: 30 mm, measuring range: customer-specific 	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