



OLM100-1005S01

OLM

OPTICAL LINEAR MEASUREMENT SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	part no.
OLM100-1005S01	1050976

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

Detailed technical data

Features

Measuring range	0 m ... 10,000 m ¹⁾
Resolution	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-485
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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.

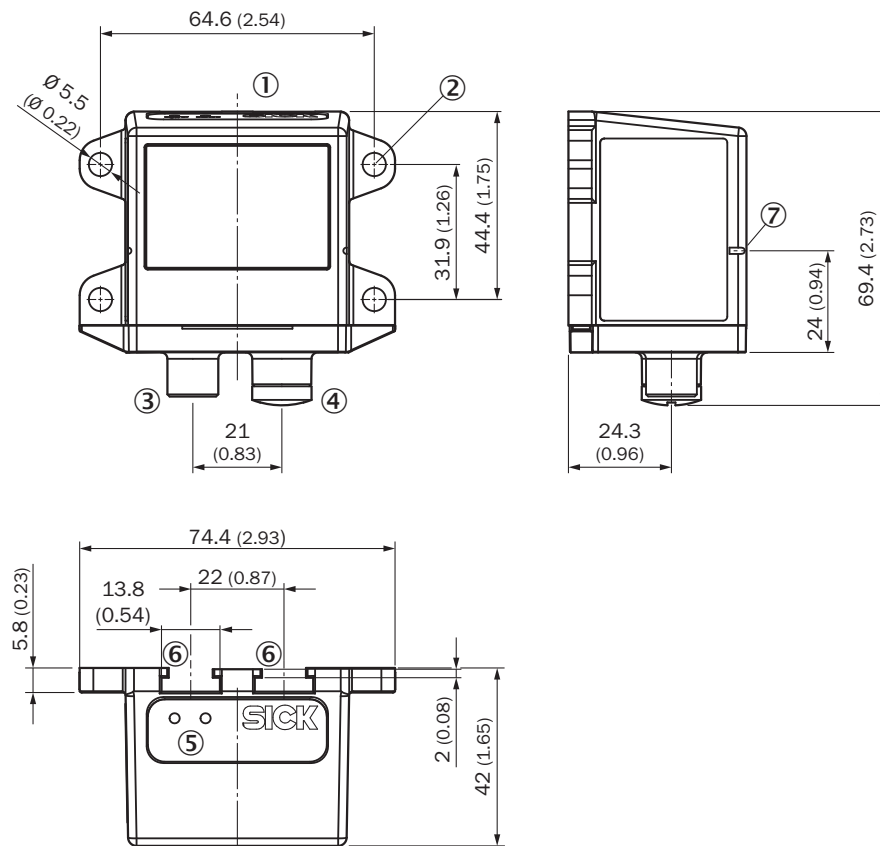
²⁾ Max. 95 % humidity, non-condensing.

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	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

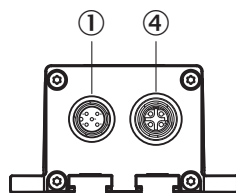
Dimensional drawing



Dimensions in mm (inch)

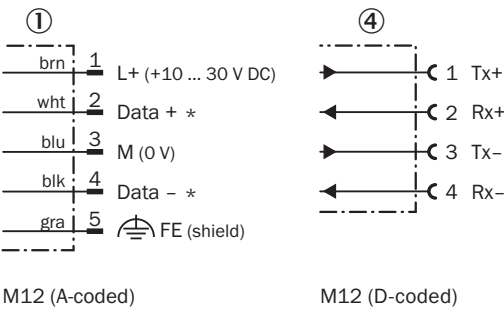
- ① Reference axis position measurement
- ② Mounting holes, $\varnothing 5.5$ mm
- ③ Connector M12, 5-pin
- ④ Ethernet M12 female connector, 4-pin
- ⑤ status LED [status]
- ⑥ T-slot
- ⑦ Adjustment aid (slot)

Pinouts OLM100-10x5 1 x socket M12, 4-pin 1 x connector M12, 5-pin



- ① RS-485
- ④ Ethernet

Connection diagram OLM100-10x5 1 x socket M12, 4-pin 1 x connector M12, 5-pin



* Termination resistors
integrated in sensor

- ① RS-485
- ④ Ethernet

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: Male connector, M12, 5-pin, straight, A-coded Signal type: CANopen, DeviceNet™ Description: CANopen, shielded DeviceNet™ Connection systems: Screw-type terminals Permitted cross-section: ≤ 0.75 mm²	STE-1205-GA	6027533
	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	SSL-2J04-H02ME	6047911
	Connection type head A: Female connector, M12, 5-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 5-wire, PUR, halogen-free Description: Sensor/actuator cable, shielded Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation	YF2A25-050UB6XLEAX	2095733
	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
	Connection type head A: Female connector, M12, 5-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 2 m, 5-wire, PUR, halogen-free Description: Sensor/actuator cable, shielded Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation	YF2A25-020UB6XLEAX	2145583
	Connection type head A: Female connector, M12, 5-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 1 m, 5-wire, PUR, halogen-free Description: Sensor/actuator cable, shielded Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation	YF2A25-010UB6XLEAX	2145582
	Connection type head A: Female connector, M12, 5-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 0.6 m, 5-wire, PUR, halogen-free Description: Sensor/actuator cable, shielded Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation	YF2A25-C60UB6XLEAX	2145581
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

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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