



# OLM100-1201S03

OLM100 Hi

LINEAR MEASUREMENT SENSORS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
OLM100-1201S03	1071962

Other models and accessories → [www.sick.com/OLM100\\_Hi](http://www.sick.com/OLM100_Hi)



### Detailed technical data

#### Mechanics/electronics

<b>Supply voltage <math>V_s</math></b>	DC 10 V ... 30 V <sup>1)</sup>
<b>Ripple</b>	$\leq 5 V_{pp}$ <sup>2)</sup>
<b>Power consumption</b>	< 5.5 W
<b>Initialization time</b>	< 3 s
<b>Enclosure rating</b>	IP65
<b>Protection class</b>	III

<sup>1)</sup> Limit values, reverse-polarity protected.

<sup>2)</sup> May not exceed or fall below  $U_v$  tolerances.

#### Performance

<b>Measuring range</b>	0 m ... 10,000 m <sup>1)</sup>
<b>Resolution</b>	0.1 mm, 1 mm
<b>Repeatability</b>	0.15 mm <sup>2)</sup>
<b>Response time</b>	10 ms <sup>3)</sup>
<b>Light source</b>	LED, red
<b>Max. movement speed</b>	7 m/s
<b>Reading distance</b>	100 mm, $\pm 20$ mm
<b>Barcode width</b>	30 mm

<sup>1)</sup> Dependent on the set resolution and transfer protocol.

<sup>2)</sup> Statistical error  $3\sigma$ .

<sup>3)</sup> Response time of digital output.

#### Interfaces

<b>SSI</b>	✓
<b>Digital input</b>	Multifunctional input MF1
<b>Digital output</b>	

<sup>1)</sup> Via multifunctional output MF2.

<sup>2)</sup> Outputs MF2 short-circuit protected.

Number	1 <sup>1)</sup>
Type	Push-pull: 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 $I_A$	$\leq 100 \text{ mA}$ <sup>2)</sup>

<sup>1)</sup> Via multifunctional output MF2.

<sup>2)</sup> Outputs MF2 short-circuit protected.

### Ambient data

<b>Electromagnetic compatibility (EMC)</b>	EN 61000-6-2 EN 61000-6-4
<b>Ambient temperature, operation</b>	-30 °C ... +60 °C <sup>1)</sup>
<b>Ambient temperature, storage</b>	-40 °C ... +75 °C <sup>2)</sup>
<b>Typ. Ambient light immunity</b>	$\leq 5,000 \text{ lx}$ <sup>3)</sup>
<b>Vibration resistance</b>	DIN/EN 60068-2-6, DIN/EN 60068-2-64
<b>Shock resistance</b>	DIN/EN 60068-2-27

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

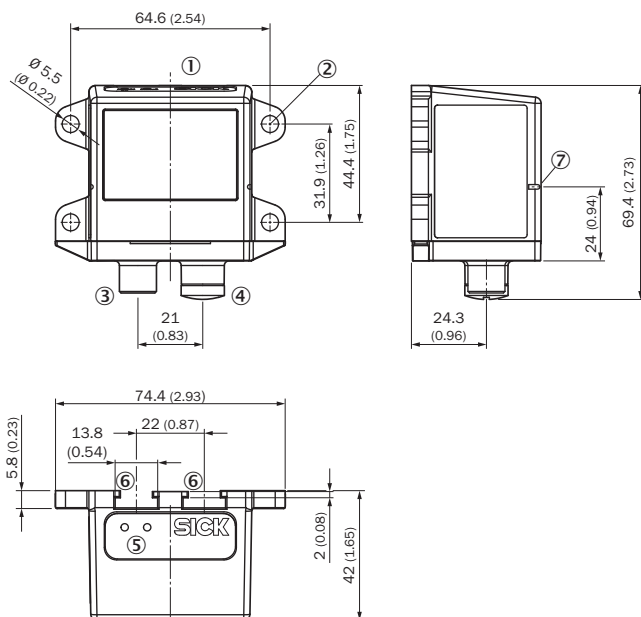
<sup>2)</sup> Max. 95 % humidity, non-condensing.

<sup>3)</sup> Typ. value at +25 °C ambient temperature.

### Classifications

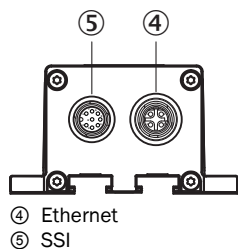
<b>eCl@ss 5.0</b>	27270890
<b>eCl@ss 5.1.4</b>	27270890
<b>eCl@ss 6.0</b>	27270890
<b>eCl@ss 6.2</b>	27270890
<b>eCl@ss 7.0</b>	27270890
<b>eCl@ss 8.0</b>	27270890
<b>eCl@ss 8.1</b>	27270890
<b>eCl@ss 9.0</b>	27270890
<b>eCl@ss 10.0</b>	27270890
<b>eCl@ss 11.0</b>	27270890
<b>eCl@ss 12.0</b>	27280106
<b>ETIM 5.0</b>	EC001825
<b>ETIM 6.0</b>	EC001825
<b>ETIM 7.0</b>	EC001825
<b>ETIM 8.0</b>	EC001825
<b>UNSPSC 16.0901</b>	39121528

## 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)

## Connection type



- ④ Ethernet
- ⑤ SSI

## Connection diagram

wht	1	MF1 (in)
brn	2	L+ (10 ... 30 V)
grn	3	Clk-
yel	4	Clk+
gra	5	Data-
pnk	6	Data+
blu	7	M (0 V)
red	8	MF2 (out)

Recommended accessories

Other models and accessories → [www.sick.com/OLM100\\_Hi](http://www.sick.com/OLM100_Hi)

	Brief description	Type	Part no.
<b>Codes</b>			
	30 mm, height: 25 mm, measuring range: customer-specific	Customer-specific bar code tape	5328960
	30 mm, height: 60 mm, measuring range: customer-specific	Customer-specific bar code tape	5327812
	30 mm, height: 100 mm, measuring range: customer-specific	Customer-specific bar code tape	5327576
	30 mm, height: 30 mm, measuring range: customer-specific	Customer-specific bar code tape	5322556
	30 mm, height: 40 mm, measuring range: customer-specific	Customer-specific bar code tape	5323951
<b>Other mounting accessories</b>			
	4 pieces, Sliding nut set, M5, 4x, Included in delivery	Sliding nuts	2017550
<b>Plug connectors and cables</b>			
	Head A: Flying leads Head B: Flying leads Cable: HIPERFACE®, PUR, halogen-free, shielded For DME with HIPERFACE® Interface	LTG-3108-MW	6032456
	Head A: female connector, M12, 8-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, shielded, 5 m	YG2A28-050VA6XLEAX	2096219
	Head A: male connector, M12, 4-pin, angled, D-coded Head B: male connector, RJ45, 8-pin, straight Cable: Ethernet, PUR, halogen-free, shielded, 2 m	SSL-2J04-H02ME	6047911
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, RJ45, 4-pin, straight Cable: Ethernet, PROFINET, PUR, halogen-free, shielded, 2 m	YM2D24-020PN1MRJA4	2106182
	Head A: female connector, M12, 8-pin, straight, A-coded Cable: Incremental, SSI, shielded	DOS-1208-GA01	6045001
	Head A: male connector, M12, 8-pin, straight Cable: shielded	STE-1208-GA	6028370

### Recommended services

Additional services → [www.sick.com/OLM100\\_Hi](http://www.sick.com/OLM100_Hi)

	Type	Part no.
Warranty extensions		
<ul style="list-style-type: none"><li>• <b>Product area:</b> Identification solutions, machine vision, Distance sensors, Detection and ranging solutions</li><li>• <b>Range of services:</b> The services correspond to the scope of the statutory manufacturer warranty (SICK general terms of delivery).</li><li>• <b>Duration:</b> Five-year warranty from delivery date.</li></ul>	Extended warranty for a total of five years from delivery date	1680671

## 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](http://www.sick.com)