



# OLM200-1052

OLM200

LINEAR MEASUREMENT SENSORS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
OLM200-1052	1051659

Other models and accessories → [www.sick.com/OLM200](http://www.sick.com/OLM200)



### Detailed technical data

#### Performance

<b>Resolution</b>	0.1 mm, 1 mm, 10 mm, 100 mm
<b>Repeatability</b>	0.15 mm <sup>1)</sup>
<b>Response time</b>	10 ms <sup>2)</sup>
<b>Output time</b>	2.5 ms
<b>Light source</b>	LED, red
<b>Measurement range</b>	0 m ... 10,000 m <sup>3)</sup>
<b>Accuracy of speed output</b>	± 5 mm/s
<b>Max. movement speed</b>	10 m/s
<b>Sensing distance</b>	130 mm, ± 20 mm
<b>Bar code width</b>	40 mm

<sup>1)</sup> Statistical error 3 s, no warm-up time required.

<sup>2)</sup> Response time of switching output.

<sup>3)</sup> Dependent on the set resolution and transfer protocol.

#### Interfaces

<b>Data transmission rate</b>	3 Mbit/s
<b>Maximum baudrate</b>	12 MBaud
<b>Switching output</b>	MF1: PNP, MF1: NPN <sup>1)</sup>
<b>Data interface</b>	PROFIBUS DP-V0

<sup>1)</sup> 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].

#### Mechanics/electronics

<b>Supply voltage V<sub>s</sub></b>	DC 18 V ... 30 V <sup>1)</sup>
<b>Ripple</b>	≤ 5 V <sub>pp</sub> <sup>2)</sup>

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

<sup>2)</sup> May not exceed or fall below U<sub>v</sub> tolerances.

<sup>3)</sup> Switching outputs MF1 short-circuit protected.

<b>Power consumption</b>	< 5.5 W
<b>Initialization time</b>	3 s
<b>Housing material</b>	Magnesium Zinc
<b>Weight</b>	Approx. 291 g
<b>Output current I<sub>A</sub></b>	100 mA <sup>3)</sup>

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

<sup>2)</sup> May not exceed or fall below U<sub>v</sub> tolerances.

<sup>3)</sup> Switching outputs MF1 short-circuit protected.

## Ambient data

<b>Enclosure rating</b>	IP 65 (EN 60 529)
<b>Protection class</b>	III
<b>Electromagnetic compatibility (EMC)</b>	EN 61000-6-2 EN 61000-6-4
<b>Ambient temperature</b>	Operation: -30 °C ... +60 °C <sup>1)</sup> Storage: -40 °C ... +75 °C <sup>2)</sup>
<b>Typ. Ambient light immunity</b>	≤ 30,000 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

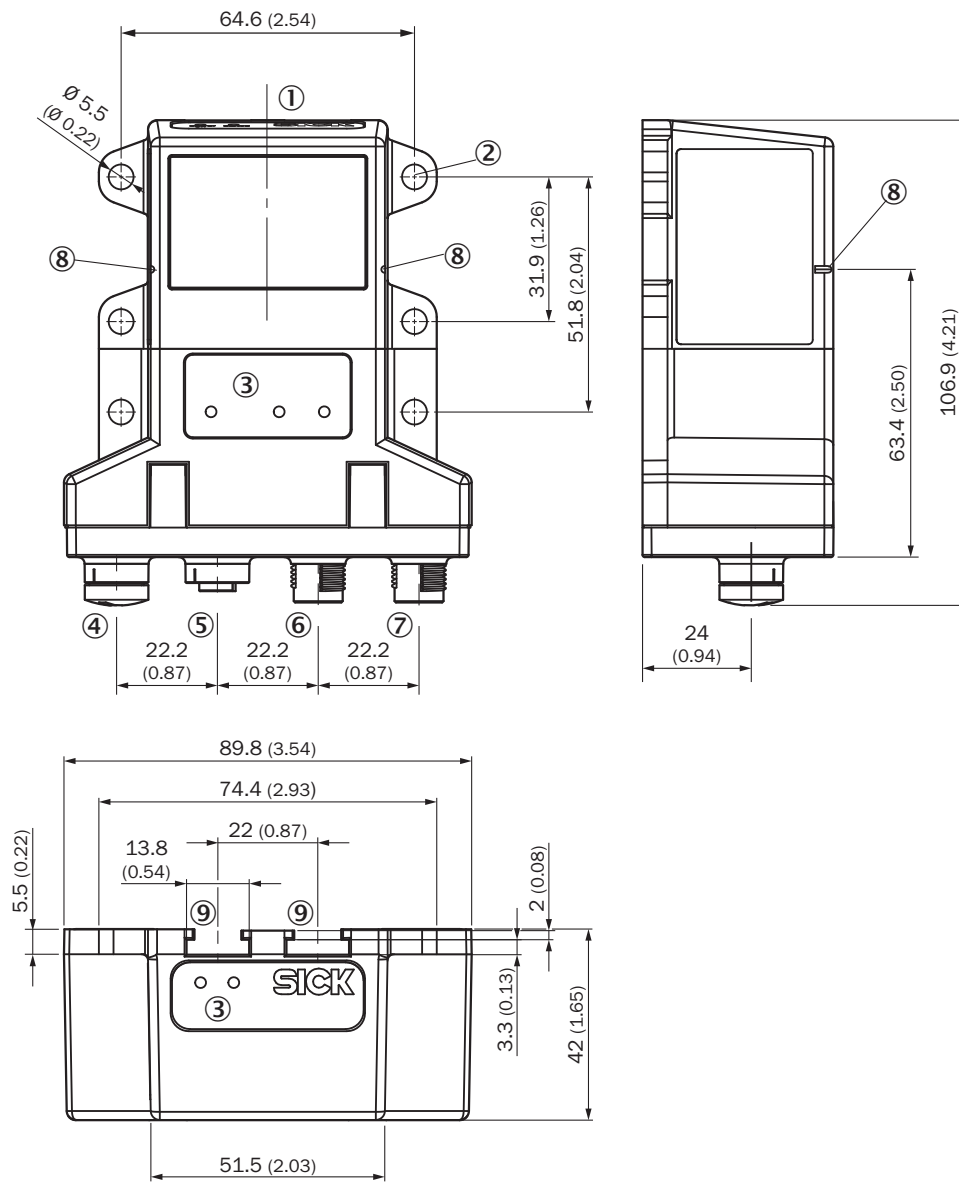
<sup>1)</sup> Temperatures < -20 °C with 5 min warm up time.

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

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

**Dimensional drawing** (Dimensions in mm (inch))

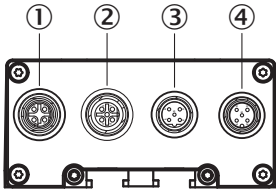
OLM200, PROFIBUS



- ① Reference axis position measurement
- ② Fixing hole
- ③ Status LED [status]
- ④ Ethernet connection M12, 4-pin
- ⑤ Fieldbus connection M12, 5-pin (e. g., PROFIBUS out)
- ⑥ Fieldbus connection M12, 5-pin (e.g. PROFIBUS in)
- ⑦ Connector M12, 5-pin
- ⑧ Adjustment aid (slot)
- ⑨ T-slot

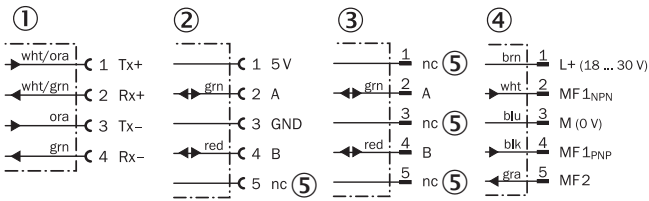
## Connection type

Socket 1 x M12, 4-pin 1 x M12, 5-pin connector 1 x M12, 5-pin



- ① Ethernet connection M12, 4-pin
- ② Fieldbus connection M12, 5-pin (e. g., PROFIBUS out)
- ③ Fieldbus connection M12, 5-pin (e.g. PROFIBUS in)
- ④ Connector M12, 5-pin

## Connection diagram










M12 (D-coded)      M12 (B-coded)      M12 (B-coded)      M12 (A-coded)

- ① Ethernet connection M12, 4-pin
- ② Fieldbus connection M12, 5-pin (e. g., PROFIBUS out)
- ③ Fieldbus connection M12, 5-pin (e.g. PROFIBUS in)
- ④ Connector M12, 5-pin
- ⑤ Not assigned

## Recommended accessories

Other models and accessories → [www.sick.com/OLM200](http://www.sick.com/OLM200)

	Brief description	Type	Part no.
<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: female connector, M12, 5-pin, straight Head B: cable Cable: PROFIBUS DP, PUR, halogen-free, shielded, 5 m	DOL-1205-G05MQ	6026006
	Head A: female connector, M12, 5-pin, angled, B-coded Head B: cable Cable: PROFIBUS DP, drag chain use, PUR, shielded, 5 m	DOL-1205-W05MQ	6041423
	Head A: male connector, M12, 5-pin, angled, B-coded Head B: cable Cable: PROFIBUS DP, drag chain use, PUR, shielded, 5 m	STL-1205-W05MQ	6041426

	Brief description	Type	Part no.
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, RJ45, 8-pin, straight Cable: Ethernet, drag chain use, PUR, shielded, 2 m	SSL-2J04-G02ME	6034414
	Head A: male connector, M12, 4-pin, angled, D-coded Head B: male connector, RJ45, 8-pin, straight Cable: EtherNet/IP, PUR, halogen-free, shielded, 2 m	SSL-2J04-H02ME	6047911
	Head A: male connector, M12, 4-pin, straight, B-coded Cable: PROFIBUS DP, terminal resistor	STE-END-Q	6021156

## 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)