



OLM200-1052

OLM

OPTICAL LINEAR MEASUREMENT SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | part no. |
|-------------|----------|
| OLM200-1052 | 1051659 |

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 | 130 mm, ± 20 mm |
| Barcode width | 40 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

| | |
|----------------|-----------------|
| PROFIBUS DP | ✓ , DPV0 |
| Digital output | |
| Number | 1 ¹⁾ |
| Type | PNP / NPN |

¹⁾ Via multifunctional output MF1.

²⁾ Outputs MF1 short-circuit protected.

| | |
|------------------------------|--|
| 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 | $\leq 100 \text{ mA}^{2)}$ |

¹⁾ Via multifunctional output MF1.

²⁾ Outputs MF1 short-circuit protected.

Electronics

| | |
|----------------------|--------------------------------|
| Supply voltage V_s | DC 18 V ... 30 V ¹⁾ |
| Ripple | $\leq 5 \text{ V}_{pp}^{2)}$ |
| Power consumption | < 5.5 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 | $\leq 9,000 \text{ lx}^{3)}$ |
| 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.

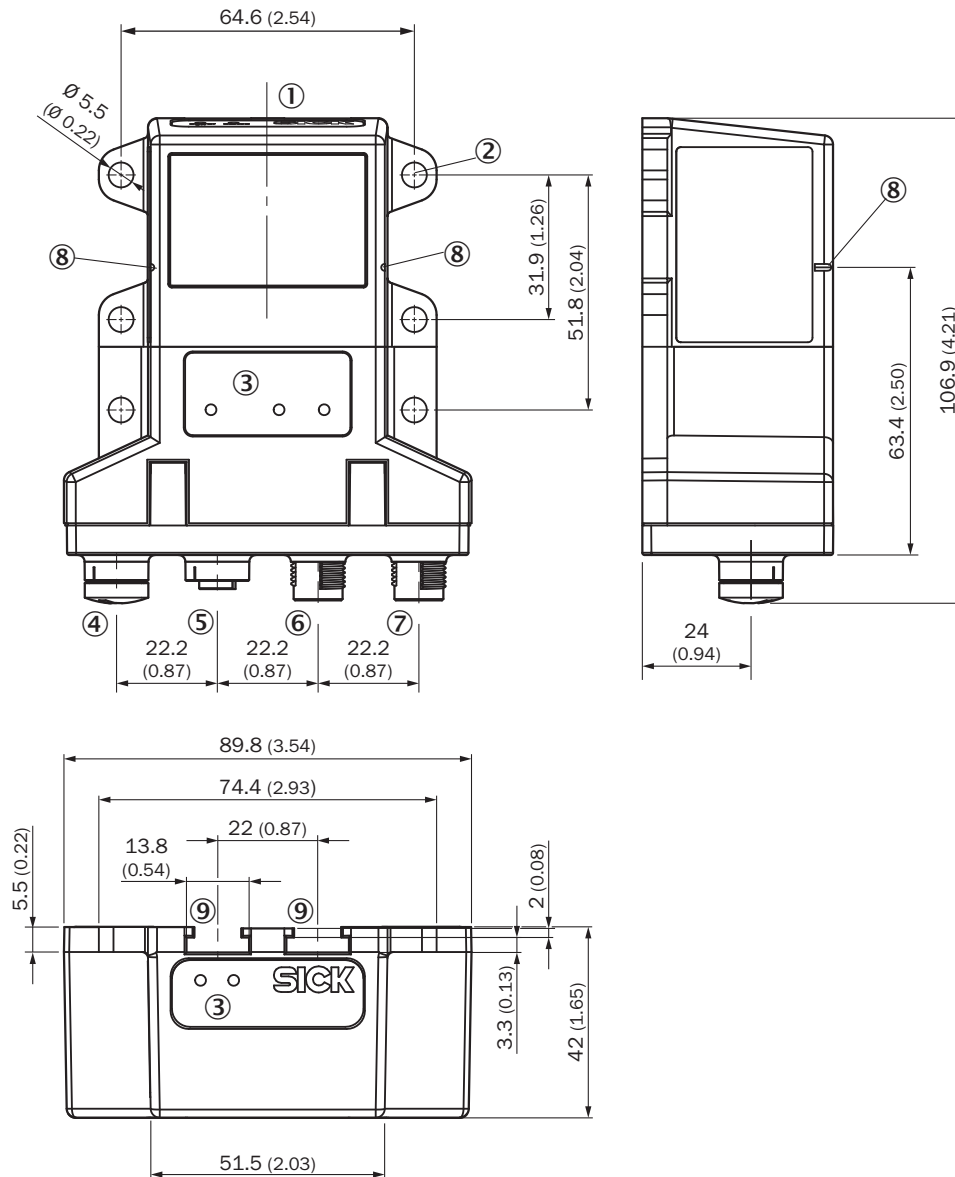
²⁾ Max. 95 % humidity, non-condensing.

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

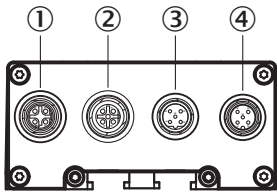
Dimensional drawing OLM200, PROFIBUS



Dimensions in mm (inch)

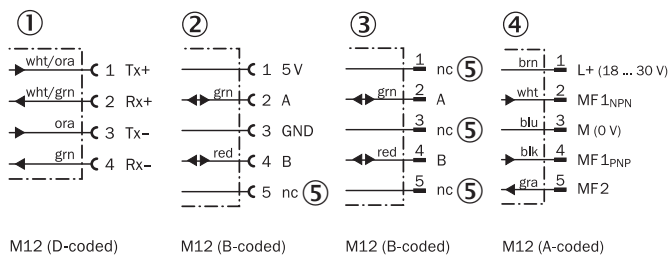
- ① Reference axis position measurement
- ② fixing hole
- ③ status LED [status]
- ④ Ethernet connection M12, 4-pin
- ⑤ fieldbus connection M12, 5-pin (e. g., PROFIBUS out)
- ⑥ Fieldbus connection M12, 5-pin (e.g. PROFIBUS in)
- ⑦ Connector M12, 5-pin
- ⑧ Adjustment aid (slot)
- ⑨ T-slot

Pinouts 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









- 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/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: Female connector, M12, 5-pin, straight, B-coded • Connection type head B: Flying leads • Signal type: PROFIBUS DP • Cable: 5 m, 2-wire, PUR, halogen-free • Description: PROFIBUS DP, twisted pair, shielded • Connection systems: Flying leads • Application: Zones with oils and lubricants | DOL-1205-G05MQ | 6026006 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, angled, B-coded • Connection type head B: Flying leads • Signal type: PROFIBUS DP • Cable: 5 m, 2-wire, PUR, halogen-free • Description: PROFIBUS DP, twisted pair, shielded • Application: Zones with oils and lubricants, Drag chain operation | DOL-1205-W05MQ | 6041423 |
|  | <ul style="list-style-type: none"> • Connection type head A: Male connector, M12, 4-pin, straight, B-coded • Signal type: PROFIBUS DP • Description: PROFIBUS DP, terminal resistor | STE-END-Q | 6021156 |
|  | <ul style="list-style-type: none"> • Connection type head A: Male connector, M12, 5-pin, angled, B-coded • Connection type head B: Flying leads • Signal type: PROFIBUS DP • Cable: 5 m, 2-wire, PUR, halogen-free • Description: PROFIBUS DP, twisted pair, shielded • Application: Zones with oils and lubricants, Drag chain operation | STL-1205-W05MQ | 6041426 |
|  | <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 | SSL-2J04-H02ME | 6047911 |
|  | <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 |

SICK AT A GLANCE

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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.”

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