



OLM

Linear encoders with fieldbus interfaces for precise positioning

SICK
Sensor Intelligence.



Technical data overview

| | |
|---------------------------------------|--|
| Measuring range | 0 m ... 10,000 m |
| Reading distance | 100 mm ± 20 mm 130 mm ± 20 mm |
| Repeatability | 0.15 mm 1 mm (depends on variant) |
| Max. movement speed | 7 m/s / 4 m/s (depends on variant) |
| PROFIBUS DP | ✓, DPV0 |
| PROFINET | ✓ |
| EtherNet/IP™ | ✓ |
| CANopen | ✓ |
| Serial | ✓ / RS-422 / ✓ / RS-485 (depends on variant) |
| SSI | ✓ |
| Output time | 1 ms ... 5 ms (depends on variant) |
| Light source | LED, red |
| Ambient temperature, operation | -30 °C ... +60 °C |
| Ambient temperature, storage | -40 °C ... +75 °C |

Product description

OLM linear encoders from SICK ensure precise positioning on travel paths of up to 10 km. The encoders combine high traversing speeds with fieldbus interfaces, setting a benchmark in positioning via bar code strip. The position data with a measurement accuracy of 0.15 mm and the exact speed values enable reliable plant operation. The OLM linear encoders also have an integrated LED illumination unit. And thanks to the non-moving parts, the devices offer a long service life, even under demanding ambient conditions.

At a glance

- Precise image-based linear encoder
- Scanning range: up to 10 km at 0.1 mm resolution
- Transmission of position and speed data via fieldbus interfaces
- Wear and maintenance-free camera technology
- Compact, rugged magnesium housing
- Operating temperature range: -30 °C to +60 °C

Your benefits

- High system efficiency and productivity thanks to high traversing speed
- Fast, precise positioning even in dynamic processes
- Simple system integration thanks to extensive interface portfolio
- Low follow-up costs and long device service life thanks to image-based technology with no moving parts
- Easy system integration, even with limited installation space – thanks to compact housing
- Can be used in deep-freeze and hot applications due to operating temperature range from -30 °C to +60 °C

Fields of application

- Image-based position detection of electrical overhead conveyors
- Vertical and horizontal fine positioning of automated storage and retrieval systems
- Non-contact position detection of transfer cars
- Camera-assisted collision avoidance on gantry cranes
- Positioning of and collision avoidance for shuttles

Ordering information

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

- **Repeatability:** 0.15 mm
- **Max. movement speed:** 7 m/s

| Reading distance | Resolution | Output time | Barcode width | Communication interface | Type | Part no. |
|------------------|--------------------------------|-------------|---------------|-------------------------|----------------|----------|
| 100 mm ± 20 mm | 0.1 mm, 1 mm | - | 30 mm | SSI | OLM100-1201S03 | 1071962 |
| | | 1 ms | 30 mm | CANopen | OLM100-1206 | 1059271 |
| | | | | SSI | OLM100-1201 | 1053074 |
| | | 5 ms | 30 mm | Serial | OLM100-1203 | 1054170 |
| | 0.1 mm, 1 mm, 10 mm, 100 mm | 2.5 ms | 30 mm | EtherNet/IP™ | OLM200-1008 | 1058813 |
| | | | | PROFIBUS DP | OLM200-1002 | 1051658 |
| | | | | PROFINET | OLM200-1009 | 1058126 |
| 130 mm ± 20 mm | 0.1 mm, 1 mm | - | 40 mm | SSI | OLM100-1251S03 | 1054733 |
| | 0.1 mm, 1 mm, 10 mm, 100 mm | 2.5 ms | 40 mm | PROFIBUS DP | OLM200-1052 | 1051659 |
| | | | | PROFINET | OLM200-1059 | 1094905 |

- **Repeatability:** 1 mm
- **Max. movement speed:** 4 m/s

| Reading distance | Resolution | Output time | Barcode width | Communication interface | Type | Part no. |
|------------------|--------------|-------------|---------------|-------------------------|----------------|----------|
| 100 mm ± 20 mm | 0.1 mm, 1 mm | 1 ms | 30 mm | CANopen | OLM100-1006 | 1047413 |
| | | | | SSI | OLM100-1001 | 1047411 |
| | | 5 ms | 30 mm | Serial | OLM100-1003 | 1047412 |
| | | | OLM100-1005 | | 1046580 | |
| | 1 mm | 5 ms | 30 mm | Serial | OLM100-1005S01 | 1050976 |
| 130 mm ± 20 mm | 0.1 mm, 1 mm | 1 ms | 40 mm | SSI | OLM100-1051 | 1050136 |

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