MLS

The sensor for magnetic line guidance

SICK
Sensor Intelligence.

MLS

Product description

The MLS is a magnetic line guidance sensor for navigating automated guided vehicles and carts. Navigation is done by aligning the sensor to the center of the magnetic lane. The sensor reliably differentiates between up to three lanes. The vehicle can therefore maneuver through branches and lane junctions with no problem. When selecting the magnetic band and the installation height, the MLS allows for a lot of freedom and is available in different variants with various detection ranges. This enables high flexibility when it comes to design and retrofitting. Magnetic marks for additional vehicle commands can be attached to the side next to the lane. An integrated inertial measuring unit supports vehicle navigation with information on the position of the sensor.

At a glance

- Detection of magnetic lines for line guidance
- Detection of switches: Up to 3 lanes at a time
- Resolution 1 mm, repeatability 1 mm
- CANopen, Modbus RTU RS-485
- Detection of control marks
- IP65, IP67, IP68
- Variants with measuring ranges of 100 mm to 1,000 mm
- Integrated inertial measuring unit

Your benefits

- Rugged aluminum housing
- Easy installation: Thin housing design and different measurement area variants
- Quick commissioning without configuration. Optional configuration and visualization via a user interface.
- Large ground clearance: 10 mm to 70 mm of distance to the magnetic band can be installed
- Safe lane detection and differentiation of up to 3 lanes for intersections and lane junctions
- Monitoring of magnetic strength of the guidance lane
- Easy and reliable detection of command marks (STOP, MERGE, SPEED CHANGE)
- Support of vehicle navigation due to integrated inertial measuring unit

Fields of application

- Line guidance for automated guided vehicles and carts (AGVs/AGCs) with magnetic band
- Fine positioning of automated guided vehicles

Ordering information

Other models and accessories ➜ www.sick.com/MLS

- **Detection range typ.:** 200 mm
- **Enclosure rating:** IP65, IP67, IP68
- **Teach-in:** ✓
- **Electrical wiring:** DC 4-wire

Connection type	Terminal resistor	Communication interface	Type	Part no.
Cable with M12 male connector, 4-pin, 0.3 m	No internal terminator	CANopen	MLSE-0200A2NQ0	1104468
Cable with M8 male connector, 4-pin, 0.3 m	Internal 120 Ω terminator	CANopen	MLSE-0200A2TP0	1092496
	No internal terminator	CANopen	MLSE-0200A2NP0	1090687
Cable, 4-wire, 3 m	No internal terminator	Modbus	MLSE-0200C2NUA	1113030

- **Detection range typ.:** 300 mm
- **Connection type:** Cable with M8 male connector, 4-pin, 0.3 m
- **Enclosure rating:** IP65, IP67, IP68
- **Teach-in:** ✓
- **Electrical wiring:** DC 4-wire
- **Communication interface:** CANopen

Terminal resistor	Type	Part no.
Internal 120 Ω terminator	MLSE-0300A2TP0	1092497
No internal terminator	MLSE-0300A2NP0	1090688

- **Detection range typ.:** 400 mm
- **Enclosure rating:** IP65, IP67, IP68
- **Teach-in:** ✓
- **Electrical wiring:** DC 4-wire

Connection type	Terminal resistor	Communication interface	Type	Part no.
Cable with M8 male connector, 4-pin, 0.3 m	Internal 120 Ω terminator	CANopen	MLSE-0400A2TP0	1092498
	No internal terminator	CANopen	MLSE-0400A2NP0	1090689
Cable, 4-wire, 3 m	No internal terminator	Modbus	MLSE-0400C2NUA	1128847

- **Detection range typ.:** 500 mm
- **Connection type:** Cable with M8 male connector, 4-pin, 0.3 m
- **Enclosure rating:** IP65, IP67, IP68
- **Teach-in:** ✓
- **Electrical wiring:** DC 4-wire
- **Communication interface:** CANopen

Terminal resistor	Type	Part no.
Internal 120 Ω terminator	MLSE-0500A2TP0	1092499
No internal terminator	MLSE-0500A2NP0	1090690

MLS

- **Detection range typ.:** 600 mm
- **Connection type:** Cable with M8 male connector, 4-pin, 0.3 m
- **Enclosure rating:** IP65, IP67, IP68
- **Teach-in:** ✓
- **Electrical wiring:** DC 4-wire

Terminal resistor	Communication interface	Type	Part no.
Internal 120 Ω terminator	CANopen	MLSE-0600A2TP0	1092500
No internal terminator	CANopen	MLSE-0600A2NP0	1090691
	Modbus	MLSE-0600C2NP0	1138631

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**

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