



# GLS100L-1MEB1FZ

## GLS100

IMAGE-BASED CODE READERS

**SICK**  
Sensor Intelligence.



### Ordering information

| Type            | part no. |
|-----------------|----------|
| GLS100L-1MEB1FZ | 1141629  |

Other models and accessories → [www.sick.com/GLS100](http://www.sick.com/GLS100)



### Detailed technical data

#### Features

|                                   |   |
|-----------------------------------|---|
| <b>Variant</b>                    | Complete device   |
| <b>Optical filter</b>             | Polarizing filter   |
| <b>Optical focus</b>              | Fixed focus   |
| <b>LED class</b>                  | Free group (IEC 62471:2006-07, EN 62471:2008-09)  |
| <b>Light source</b>               | Internal lighting, 2 x LED, Visible, Amber, 590 nm, ± 80 nm<br>Internal lighting, 2 x LED, Visible, cyan, 500 nm, ± 40 nm |
| <b>Reading distance</b>           | 100 mm <sup>1) 2)</sup>   |
| <b>Overrun speed</b>              | ≤ 3.5 m/s <sup>3)</sup>   |
| <b>Repeatability (position)</b>   | ± 0.1 mm <sup>4)</sup>  |
| <b>Angular accuracy (azimuth)</b> | ± 0.1° <sup>5)</sup>  |
| <b>Working range</b>              | 100 nm ... 100 mm <sup>1) 2)</sup>  |

<sup>1)</sup> ± 30 mm with the SICK MultiCode label; ± 10 mm when using color tracks.

<sup>2)</sup> For code module size of 1 mm. For module size ≤ 1 mm, see operating instructions.

<sup>3)</sup> ≤ 3.5 m/s with the SICK MultiCode label.

<sup>4)</sup> ± 0.1 mm with the SICK MultiCode label; ± 1 mm when using color tracks.

<sup>5)</sup> ± 0.1° with the SICK MultiCode label; ± 2° when using color tracks.

#### Mechanics/electronics

|                          |                       |
|--------------------------|-----------------------|
| <b>Supply voltage</b>    | 10.8 V ... 30 V       |
| <b>Power consumption</b> | < 3 W                 |
| <b>Housing material</b>  | Zinc diecast          |
| <b>Housing color</b>     | Light blue (RAL 5012) |

|                               |                              |
|-------------------------------|------------------------------|
| <b>Enclosure rating</b>       | IP65 (EN 60529, EN 60529/A2) |
| <b>Protection class</b>       | III                          |
| <b>Weight</b>                 | 250 g                        |
| <b>Dimensions (L x W x H)</b> | 31 mm x 62 mm x 52.5 mm      |

### Performance

|                                 |  |
|---------------------------------|--|
| <b>Readable code structures</b> | 2D codes   |
| <b>2D code types</b>            | Data Matrix ECC200, QR code  |
| <b>Code qualification</b>       | On the basis of ISO/IEC 16022, ISO/IEC 15415, ISO/IEC 15416, ISO/IEC 18004 |

### Interfaces

|                           |  |
|---------------------------|--|
| <b>IO-Link</b>            | ✓, IO-Link V1.1                            |
| Data transmission rate    | COM3 (230,4 kBaud)                         |
| <b>CANopen</b>            | ✓  |
| Data transmission rate    | 50/125/250/500/1,000 kbit/s                |
| <b>Optical indicators</b> | 2 LEDs (1 x voltage supply, 1 x code read) |

### Ambient data

|  |  |
|--|--|
| <b>Electromagnetic compatibility (EMC)</b> | EN 61000-6-3:2007+A1:2011, EN 61000-6-2:2005-08 / IEC 61000-6-3:2006+AMD1:2010 |
| <b>Vibration resistance</b>                | EN 60068-2-6:2008-02 / EN 60068-2-27:2010-02                                   |
| <b>Ambient operating temperature</b>       | 0 °C ... +50 °C  |
| <b>Storage temperature</b>                 | -25 °C ... +75 °C  |
| <b>Permissible relative humidity</b>       | 90 %, Non-condensing   |

### Connection type/pinouts

|                        |   |
|------------------------|---|
| <b>Connection type</b> | Connector M12, 5-pin, A-coded <sup>1)</sup> |
| <b>Pinouts</b>         |   |
| BN 1                   | V IN  |
| WH 2                   | CAN HIGH                                    |
| BU 3                   | GND   |
| BK 4                   | C   |
| GY 5                   | CAN LOW                                     |

<sup>1)</sup> The pin assignment does not correspond to the DeviceNet specification.

### Certificates

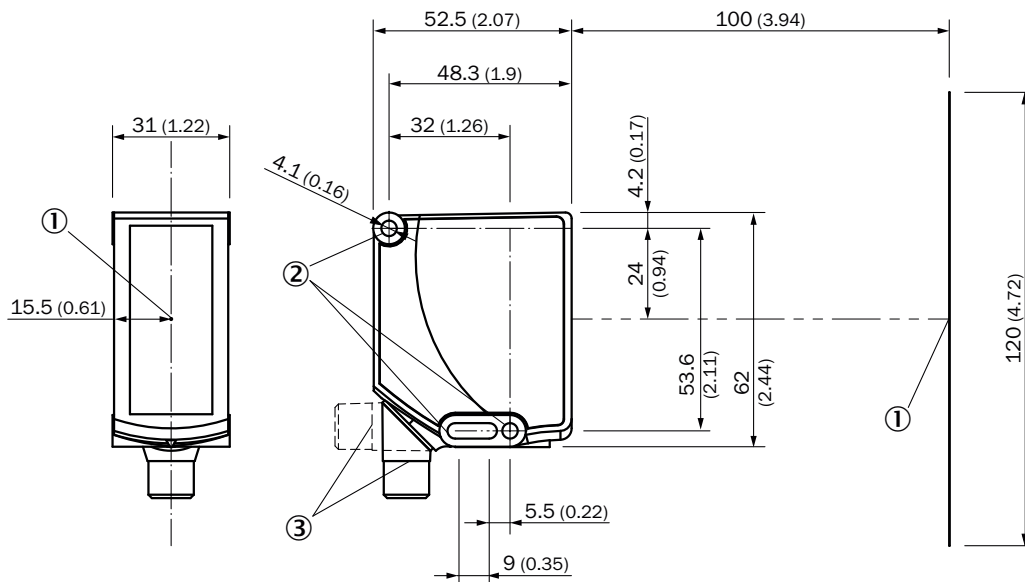
|   |   |
|---|---|
| <b>EU declaration of conformity</b>       | ✓ |
| <b>UK declaration of conformity</b>       | ✓ |
| <b>ACMA declaration of conformity</b>     | ✓ |
| <b>Moroccan declaration of conformity</b> | ✓ |
| <b>China RoHS</b>                         | ✓ |
| <b>cULus certificate</b>                  | ✓ |
| <b>IO-Link certificate</b>                | ✓ |
| <b>KC Mark certificate</b>                | ✓ |
| <b>BIS registration</b>                   | ✓ |

|   |   |
|---|---|
| Photobiological safety (IEC EN 62471)                                 | ✓ |
| Information according to Art. 3 of Data Act (Regulation EU 2023/2854) | ✓ |

### Classifications

|                       |          |
|-----------------------|----------|
| <b>ECLASS 5.0</b>     | 27280103 |
| <b>ECLASS 5.1.4</b>   | 27280103 |
| <b>ECLASS 6.0</b>     | 27280103 |
| <b>ECLASS 6.2</b>     | 27280103 |
| <b>ECLASS 7.0</b>     | 27280103 |
| <b>ECLASS 8.0</b>     | 27280103 |
| <b>ECLASS 8.1</b>     | 27280103 |
| <b>ECLASS 9.0</b>     | 27280103 |
| <b>ECLASS 10.0</b>    | 27280103 |
| <b>ECLASS 11.0</b>    | 27280103 |
| <b>ECLASS 12.0</b>    | 27280103 |
| <b>ETIM 5.0</b>       | EC002550 |
| <b>ETIM 6.0</b>       | EC002550 |
| <b>ETIM 7.0</b>       | EC002999 |
| <b>ETIM 8.0</b>       | EC002999 |
| <b>UNSPSC 16.0901</b> | 43211701 |

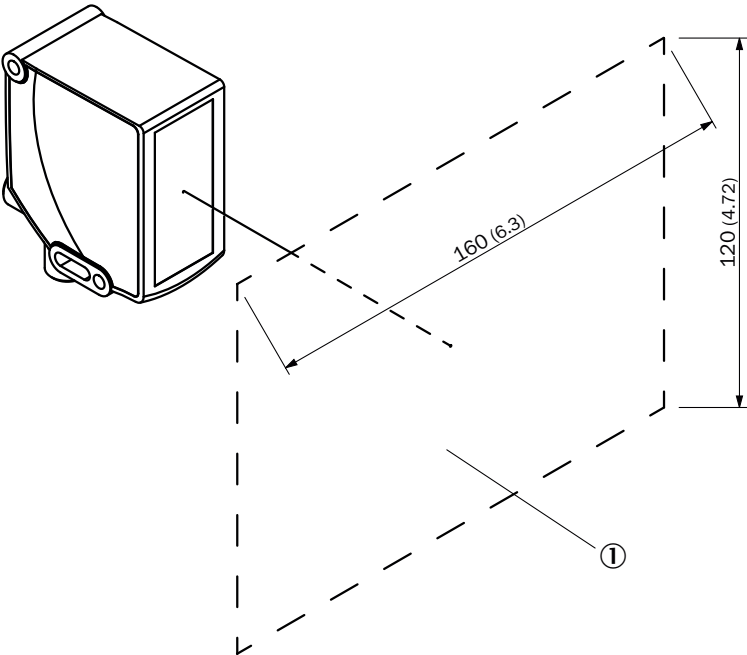
### Dimensional drawing, sensor



Dimensions in mm (inch)

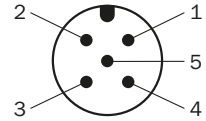
- ① Optical axis
- ② Mounting hole,  $\varnothing$  4.1 mm
- ③ Connector M12 (rotatable up to 90°)

Field of view



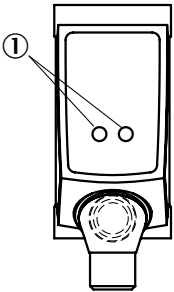
① Field of view (W x H)

Pinouts, see table Technical data: Connection type/pinouts



Male connector, M12, 5-pin, A-coded









display and adjustment elements



① Status indicators

### Recommended accessories

Other models and accessories → [www.sick.com/GLS100](http://www.sick.com/GLS100)

|   | Brief description   | Type   | part no. |
|---|---|--|----------|
| <b>Mounting systems</b>   |   |  |          |
|   | <ul style="list-style-type: none"> <li><b>Description:</b> Adapter plate for easy mounting of the GLS1 with existing hole pattern</li> <li><b>Material:</b> Steel</li> <li><b>Details:</b> Steel, zinc coated</li> <li><b>Items supplied:</b> Adapter plate, screw set for adapter plate and GLS1</li> <li><b>Suitable for:</b> GLS100</li> </ul>   | GLS100 adapter plate                           | 4111248  |
|    | <ul style="list-style-type: none"> <li><b>Description:</b> Adapter bracket for easy mounting of the GLS1 with existing hole pattern</li> <li><b>Material:</b> Metal</li> <li><b>Details:</b> Steel, zinc coated</li> <li><b>Items supplied:</b> Adapter bracket, screw set for adapter bracket and GLS1</li> <li><b>Suitable for:</b> GLS100</li> </ul>   | GLS100 adapter bracket                         | 4111249  |
|    | <ul style="list-style-type: none"> <li><b>Description:</b> Plate N04 for universal clamp, steel</li> <li><b>Material:</b> Steel, zinc diecast</li> <li><b>Details:</b> Zinc plated steel (sheet), Zinc die cast (clamping bracket)</li> <li><b>Items supplied:</b> Universal clamp (5322626), mounting hardware</li> <li><b>Usable for:</b> Dx50, UC12, W12G, W14-2, W18-2, W23, W280, W11-2, W12-3, W12-2 Laser, W12 Teflon, W16, W18-3, W23-2, W24-2, W24-2 Ex, W26, W27-2 Laser, W27-2, W27-3, W34, W260, W280-2, PowerProx, Reflex Array, W11G-2, W18-3 Ex, W27-3 Ex</li> </ul> | BEF-KHS-N04                                    | 2051610  |
| <b>Codes</b>  |   |  |          |
|   | <ul style="list-style-type: none"> <li><b>Description:</b> Multi code label with 16 data matrix codes for localizing AGVs, 400 codes in set: X0 / Y0 to X19 / Y19, self-adhesive, recommended for GLS100</li> </ul>   | DATAMATRIX MULTI-CODE LABEL SET2 X0/Y0-X19/Y19 | 4111694  |
|  | <ul style="list-style-type: none"> <li><b>Description:</b> Multi code label with 16 Data Matrix codes for localizing AGVs, 100 codes in set: X0 / Y0 to X9 / Y9, self-adhesive, recommended for GLS100</li> </ul>   | DATAMATRIX MULTI-CODE LABEL SET1 X0/Y0-X9/Y9   | 4111693  |
|  | <ul style="list-style-type: none"> <li><b>Description:</b> Code tape with 2D Data Matrix codes for positioning using GLS100, code size 12 mm x 12 mm, self-adhesive, recommended for GLS100</li> </ul>  | MULTICODE-TAPE 0-40                            | 5345479  |
|  | <ul style="list-style-type: none"> <li><b>Description:</b> Multi code label with 16 data matrix codes for localizing AGVs, customized, self-adhesive, recommended for GLS100 (for orders, the following information on the code grid must be entered in the "Position note" field: X0000 Y0000 to X9999 Y9999)</li> </ul>   | DATAMATRIX MULTICODE LABEL CUSTOMIZED          | 4126813  |
| <b>connectors and cables</b>  |   |  |          |
|  | <ul style="list-style-type: none"> <li><b>Description:</b> Unshielded</li> <li><b>Connection type head A:</b> Male connector, M12, 5-pin, straight, A-coded</li> <li><b>Connection systems:</b> Screw-type terminals</li> <li><b>Permitted cross-section:</b> ≤ 0.75 mm<sup>2</sup></li> <li><b>Note:</b> For field bus technology</li> </ul>   | STE-1205-G                                     | 6022083  |
|  | <ul style="list-style-type: none"> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Connection type head A:</b> Female connector, M12, 5-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 5 m, 5-wire, PVC</li> <li><b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>   | YF2A15-050VB5XLEAX                             | 2096240  |

## 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:

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