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

Detailed technical data

Features

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

[1] ± 30 mm with the SICK MultiCode label; ± 10 mm when using color tracks.

[2] For code module size of 1 mm. For module size ≤ 1 mm, see operating instructions.

[3] ≤ 3.5 m/s with the SICK MultiCode label.

[4] ± 0.1 mm with the SICK MultiCode label; ± 1 mm when using color tracks.

[5] ± 0.1° with the SICK MultiCode label; ± 2° when using color tracks.

Mechanics/electronics

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

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

Performance

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

Interfaces

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

Ambient data

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

Connection type/pinouts

Connection type	Connector M12, 5-pin, A-coded [1]
Pinouts	
BN 1	V IN
WH 2	CAN HIGH
BU 3	GND
BK 4	C
GY 5	CAN LOW

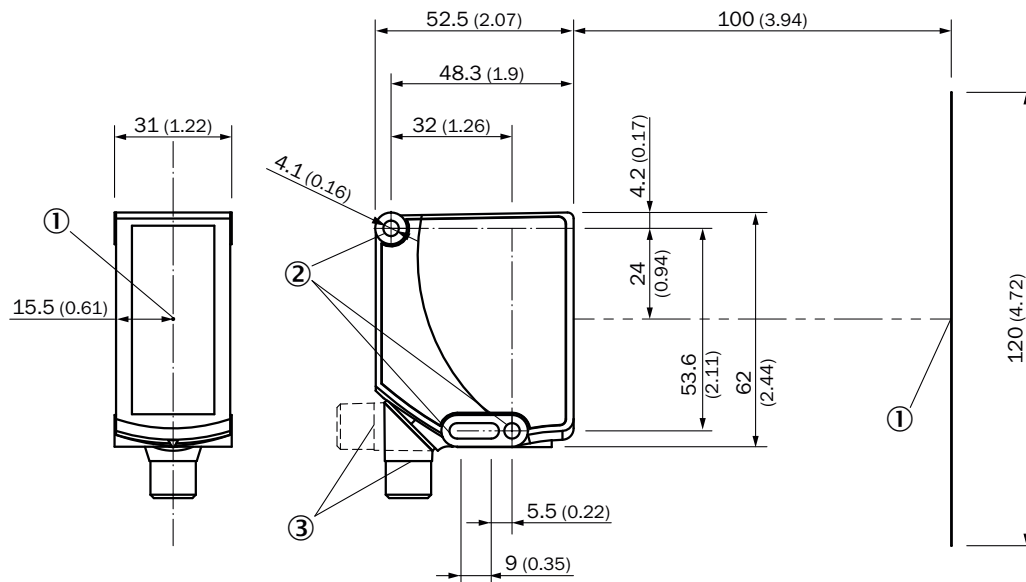[1] The pin assignment does not correspond to the DeviceNet specification.

Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
cULus certificate	✓
IO-Link certificate	✓
KC Mark certificate	✓
BIS registration	✓

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

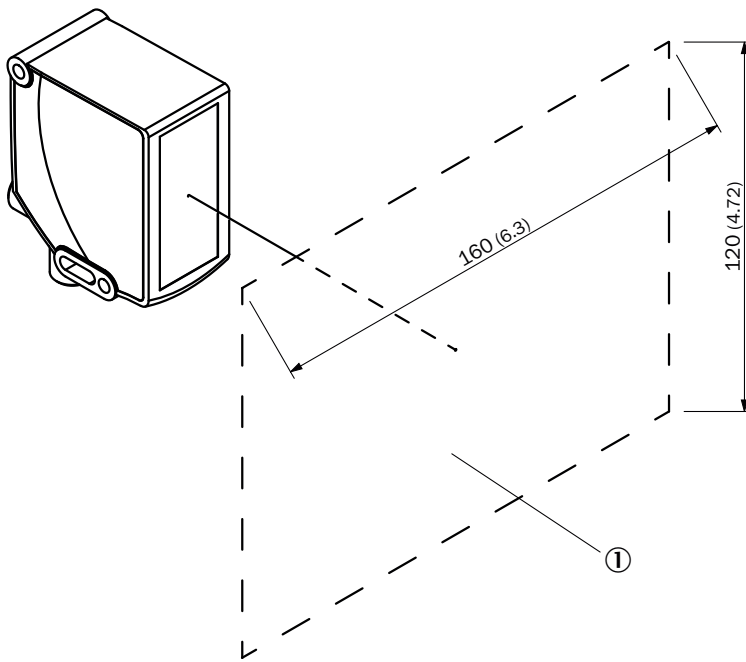### Classifications

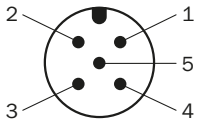| ECLASS 5.0	27280103
ECLASS 5.1.4	27280103
ECLASS 6.0	27280103
ECLASS 6.2	27280103
ECLASS 7.0	27280103
ECLASS 8.0	27280103
ECLASS 8.1	27280103
ECLASS 9.0	27280103
ECLASS 10.0	27280103
ECLASS 11.0	27280103
ECLASS 12.0	27280103
ETIM 5.0	EC002550
ETIM 6.0	EC002550
ETIM 7.0	EC002999
ETIM 8.0	EC002999
UNSPSC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

Dimensional drawing, sensor

Dimensions in mm (inch)
① Optical axis
② Mounting hole, Ø 4.1 mm
③ Connector M12 (rotatable up to 90°)
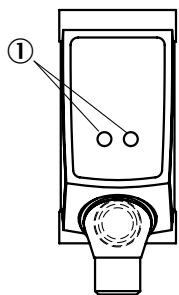
Field of view

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

Brief description	Type	part no.
Mounting systems		
• **Description:** Adapter plate for easy mounting of the GLS1 with existing hole pattern • **Material:** Steel • **Details:** Steel, zinc coated • **Items supplied:** Adapter plate, screw set for adapter plate and GLS1 • **Suitable for:** GLS100	GLS100 adapter plate	4111248
• **Description:** Adapter bracket for easy mounting of the GLS1 with existing hole pattern • **Material:** Metal • **Details:** Steel, zinc coated • **Items supplied:** Adapter bracket, screw set for adapter bracket and GLS1 • **Suitable for:** GLS100	GLS100 adapter bracket	4111249
• **Description:** Plate N04 for universal clamp, steel • **Material:** Steel, zinc diecast • **Details:** Zinc plated steel (sheet), Zinc die cast (clamping bracket) • **Items supplied:** Universal clamp (5322626), mounting hardware • **Usable for:** 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	BEF-KHS-N04	2051610
Codes		
• **Description:** 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	DATAMATRIX MULTI-CODE LABEL SET2 X0/Y0-X19/Y19	4111694
• **Product family:** Positioning codes • **Description:** 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	DATAMATRIX MULTI-CODE LABEL SET1 X0/Y0-X9/Y9	4111693
• **Product family:** Positioning codes • **Description:** Code tape with 2D Data Matrix codes for positioning using GLS100, code size 12 mm x 12 mm, self-adhesive, recommended for GLS100	MULTICODE-TAPE 0-40	5345479
Strich		On request
connectors and cables		
• **Connection type head A:** Male connector, M12, 5-pin, straight, A-coded • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** ≤ 0.75 mm² • **Note:** For field bus technology	STE-1205-G	6022083
• **Connection type head A:** Female connector, M12, 5-pin, straight, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 5 m, 5-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Uncontaminated zones, Zones with chemicals	YF2A15-050VB5XLEAX	2096240

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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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