



# CLV691-0001

CLV69x

**FIXED MOUNT BARCODE SCANNERS**

**SICK**  
Sensor Intelligence.



## Ordering information

| Type        | part no. |
|-------------|----------|
| CLV691-0001 | 1056606  |

Other models and accessories → [www.sick.com/CLV69x](http://www.sick.com/CLV69x)



## Detailed technical data

### Features

|                                       |                                                                                                                                                             |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Version</b>                        | Low Density                                                                                                                                                 |
| <b>Connection type</b>                | Depending on the cloning plug used                                                                                                                          |
| <b>Reading field</b>                  | Front                                                                                                                                                       |
| <b>Sensor type</b>                    | Line scanner                                                                                                                                                |
| <b>Optical focus</b>                  | Auto focus (alternative: dynamic focus control)                                                                                                             |
| <b>No. of distance configurations</b> | ≤ 8                                                                                                                                                         |
| <b>Focus adjustment time</b>          | ≤ 20 ms                                                                                                                                                     |
| <b>Focus trigger source</b>           | Data interface / Digital inputs                                                                                                                             |
| <b>Light source</b>                   | Light spot, laser, Visible, Red, 660 nm                                                                                                                     |
| <b>Laser class</b>                    | 2, complies with 21 CFR 1040.10 except for the conformance according to "Laser Notice No. 56" from May 8, 2019 (EN 60825-1:2014+A11:2021, IEC 60825-1:2014) |
| <b>Aperture angle</b>                 | ≤ 60°                                                                                                                                                       |
| <b>Reading distance</b>               | 500 mm ... 2,200 mm <sup>1)</sup>                                                                                                                           |
| <b>Scanning frequency</b>             | 400 Hz ... 1,200 Hz                                                                                                                                         |
| <b>Code resolution</b>                | 0.35 mm ... 1.2 mm                                                                                                                                          |
| <b>Heating</b>                        | ✓                                                                                                                                                           |
| <b>Front screen heating</b>           | ✓                                                                                                                                                           |
| <b>Cold storage applications</b>      | ✓                                                                                                                                                           |

<sup>1)</sup> For details see reading field diagram.

### Mechanics/electronics

|                        |                                    |
|------------------------|------------------------------------|
| <b>Connection type</b> | Depending on the cloning plug used |
|------------------------|------------------------------------|

<sup>1)</sup> At 25 °C.

|                               |                                      |
|-------------------------------|--------------------------------------|
| <b>Supply voltage</b>         | 21.6 V DC ... 28.8 V DC              |
| <b>Power consumption</b>      | 78 W                                 |
| <b>Housing material</b>       | Aluminum die cast                    |
| <b>Housing color</b>          | Light blue (RAL 5012)                |
| <b>Window material</b>        | Glass                                |
| <b>Enclosure rating</b>       | IP65 (EN 60529/A1 (2002-02))         |
| <b>Weight</b>                 | + 1,500 g                            |
| <b>Dimensions (L x W x H)</b> | 117 mm x 117 mm x 94 mm              |
| <b>MTBF</b>                   | 100,000 h                            |
| <b>MTTF</b>                   | 40,000 h (Laser diode) <sup>1)</sup> |

<sup>1)</sup> At 25 °C.

## Performance

|                                               |                                                                                                                      |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| <b>Readable code structures</b>               | 1D codes                                                                                                             |
| <b>Bar code types</b>                         | Interleaved 2 of 5, all current code types, Codabar, Code 128, Code 39, Code 93, GS1-128 / EAN 128, UPC / GTIN / EAN |
| <b>Code printing process</b>                  | Label (printed codes)                                                                                                |
| <b>Print ratio</b>                            | 2:1 ... 3:1                                                                                                          |
| <b>No. of codes per scan</b>                  | 1 ... 20 (Standard decoder)<br>1 ... 6 (SMART decoder)                                                               |
| <b>No. of codes per reading interval</b>      | 1 ... 50 (auto-discriminating)                                                                                       |
| <b>No. of characters per reading interval</b> | 5,000                                                                                                                |
| <b>No. of multiple readings</b>               | 1 ... 100                                                                                                            |

## Interfaces

|                     |                              |                                                                             |
|---------------------|------------------------------|-----------------------------------------------------------------------------|
| <b>Ethernet</b>     |                              | ✓ , TCP/IP                                                                  |
|                     | Remark                       | Only with cloning plug I/O, CAN IN/OUT or CAN Redundant                     |
|                     | Function                     | Data interface (read result output), Service interface                      |
|                     | Data transmission rate       | 10/100 MBit/s                                                               |
| <b>PROFINET</b>     |                              | ✓                                                                           |
|                     | Type of fieldbus integration | Optional over external fieldbus module CDF600-2                             |
|                     | Remark                       | Only with cloning plug I/O, CAN IN/OUT or CAN Redundant                     |
|                     | Function                     | PROFINET Single Port, PROFINET Dual Port                                    |
| <b>EtherNet/IP™</b> |                              | ✓                                                                           |
|                     | Remark                       | Only with cloning plug I/O, CAN IN/OUT or CAN Redundant                     |
|                     | Data transmission rate       | 10/100 MBit/s                                                               |
| <b>Serial</b>       |                              | ✓ , RS-232, RS-422, RS-485                                                  |
|                     | Remark                       | Only with cloning plug D-Sub and Ethernet                                   |
|                     | Function                     | Data interface (read result output), AUX (only RS-232)                      |
|                     | Data transmission rate       | 0.3 kBaud ... 115.2 kBaud, AUX: 57.6 kBaud (RS-232)                         |
| <b>CAN</b>          |                              | ✓                                                                           |
|                     | Function                     | SICK CAN sensor network CSN (CAN controller/CAN device, multiplexer/server) |
|                     | Data transmission rate       | 20 kbit/s ... 1 Mbit/s                                                      |
| <b>PROFIBUS DP</b>  |                              | ✓                                                                           |

|                              |                                                                                                                  |
|------------------------------|------------------------------------------------------------------------------------------------------------------|
| Type of fieldbus integration | Optional over external fieldbus module CDF600-2                                                                  |
| Digital inputs               | 6 ("Sensor 1" ... "Sensor 6")                                                                                    |
| Digital outputs              | 4 ("Result 1" ... "Result 4")                                                                                    |
| Reading pulse                | Digital inputs, serial interface, auto pulse, CAN                                                                |
| Optical indicators           | 6 LEDs (Ready, Result, laser, Data, CAN, LNK TX, Bar graph for displaying the reading rate percentage (10 LEDs)) |
| Control elements             | 2 buttons                                                                                                        |
| Parameter storage            | Integrated in cloning plug                                                                                       |
| Configuration software       | SOPAS ET                                                                                                         |

#### Ambient data

|                                     |                                                           |
|-------------------------------------|-----------------------------------------------------------|
| Electromagnetic compatibility (EMC) | EN 61000-6-4 (2007-01) + A1 (2011) / EN 61000-6-2:2005-08 |
| Vibration resistance                | EN 60068-2-6:2008-02                                      |
| Shock resistance                    | EN 60068-2-27:2009-05                                     |
| Ambient operating temperature       | -35 °C ... +35 °C                                         |
| Storage temperature                 | -20 °C ... +70 °C                                         |
| Permissible relative humidity       | 90 %, Non-condensing                                      |
| Ambient light immunity              | 2,000 lx, on barcode                                      |
| Bar code print contrast (PCS)       | ≥ 60 %                                                    |

#### Certificates

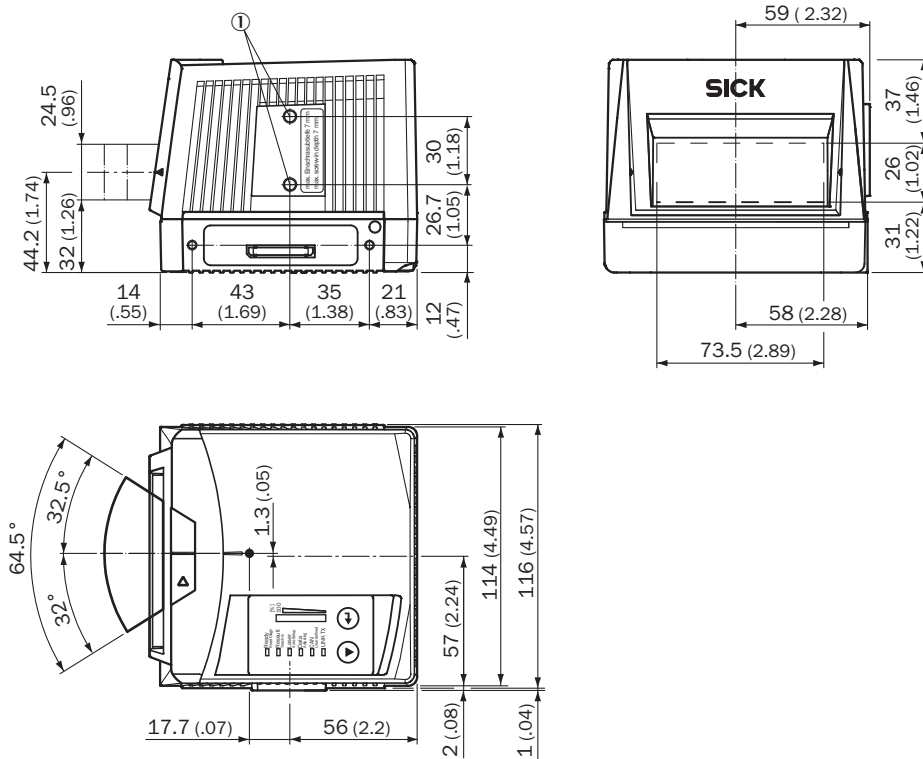
|                                                                       |   |
|-----------------------------------------------------------------------|---|
| EU declaration of conformity                                          | ✓ |
| UK declaration of conformity                                          | ✓ |
| ACMA declaration of conformity                                        | ✓ |
| China RoHS                                                            | ✓ |
| cULus certificate                                                     | ✓ |
| Profinet certificate                                                  | ✓ |
| Laser safety (IEC 60825-1) declaration of manufacturer                | ✓ |
| Information according to Art. 3 of Data Act (Regulation EU 2023/2854) | ✓ |
| 4Dpro                                                                 | ✓ |

#### Classifications

|              |          |
|--------------|----------|
| ECLASS 5.0   | 27280102 |
| ECLASS 5.1.4 | 27280102 |
| ECLASS 6.0   | 27280102 |
| ECLASS 6.2   | 27280102 |
| ECLASS 7.0   | 27280102 |
| ECLASS 8.0   | 27280102 |
| ECLASS 8.1   | 27280102 |
| ECLASS 9.0   | 27280102 |
| ECLASS 10.0  | 27280102 |
| ECLASS 11.0  | 27280102 |
| ECLASS 12.0  | 27280102 |

|                       |          |
|-----------------------|----------|
| <b>ETIM 5.0</b>       | EC002550 |
| <b>ETIM 6.0</b>       | EC002550 |
| <b>ETIM 7.0</b>       | EC002550 |
| <b>ETIM 8.0</b>       | EC002550 |
| <b>UNSPSC 16.0901</b> | 43211701 |

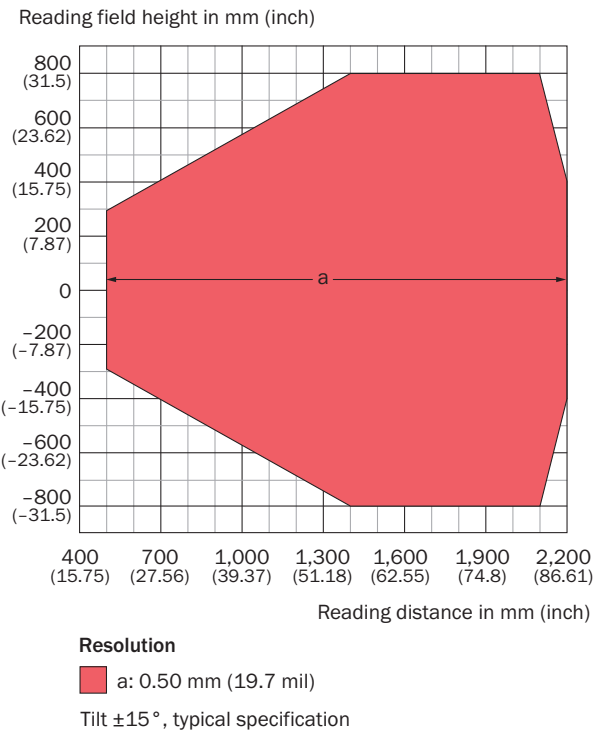
## Dimensional drawing



Dimensions in mm (inch)

① M6 blind tapped holes, 7 mm deep (2 x), for mounting

Reading field diagram



Recommended accessories

Other models and accessories → [www.sick.com/CLV69x](http://www.sick.com/CLV69x)

|                                                                                     | Brief description                                                                                                                                                                                                                | Type                                                        | part no. |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|----------|
| Mounting systems                                                                    |                                                                                                                                                                                                                                  |                                                             |          |
|  | <ul style="list-style-type: none"><li>• <b>Description:</b> Quick-action lock system</li><li>• <b>Items supplied:</b> Mounting hardware included</li></ul>                                                                       | Quick release                                               | 2016110  |
|  | <ul style="list-style-type: none"><li>• <b>Description:</b> Mounting support with integrated vibration/shock absorption for suspended mounting (absorber elements above the CLV)</li><li>• <b>Suitable for:</b> CLV69x</li></ul> | Mounting bracket with vibration/shock absorption for CLV69x | 2088163  |

|                                                                                     | Brief description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Type                | part no. |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------|
| connectors and cables                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                     |          |
|    | <ul style="list-style-type: none"> <li><b>Connection type head A:</b> Male connector, M12, 17-pin, Male connector, M12, 5-pin, Female connector, M12, 4-pin</li> <li><b>Signal type:</b> Power, Ethernet, serial, CAN, digital I/Os</li> <li><b>Items supplied:</b> With three M12 round connectors (17-pin male connector, 4-pin Ethernet female connector, 5-pin CAN male connector)</li> <li><b>Description:</b> Power, Ethernet, Serial, CAN, Digital I/Os</li> <li><b>Note:</b> Plug housing I/O, Ethernet</li> </ul> | Cloning plug        | 2062452  |
|    | <ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 17-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Male connector, M12, 17-pin, straight, A-coded</li> <li><b>Signal type:</b> Power, serial, CAN, digital I/Os</li> <li><b>Cable:</b> 2 m, suitable for refrigeration</li> <li><b>Description:</b> Power, suitable for 2 A, shielded, Serial, CAN, Digital I/Os</li> </ul>                                                                                    | YM2A8D-020XXX2A8D   | 6053230  |
|    | <ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 5-pin, straight</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Power</li> <li><b>Cable:</b> 5 m, 3-wire</li> <li><b>Description:</b> Power, shielded</li> <li><b>Application:</b> Cold bending resistant</li> </ul>                                                                                                                                                                        | YFXXX-050XXX2Z1X    | 6053224  |
|    | <ul style="list-style-type: none"> <li><b>Connection type head A:</b> Male connector, M12, 4-pin, straight, D-coded</li> <li><b>Connection type head B:</b> Male connector, RJ45, 8-pin, straight</li> <li><b>Signal type:</b> Ethernet, PROFINET</li> <li><b>Cable:</b> 2 m, 4-wire, AWG26, PVC</li> <li><b>Description:</b> Ethernet, shielded, PROFINET</li> </ul>                                                                                                                                                      | YM2D24-020E-B2MRJA4 | 6050198  |
| Junction boxes                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                     |          |
|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | CDB650-204          | 1064114  |
| integration modules and adapters                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                     |          |
|  | <ul style="list-style-type: none"> <li><b>Description:</b> External parameter memory for integration in CDB620/CDB650/CDM42x</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                    | CMC600-101          | 1042259  |

## SICK AT A GLANCE

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Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

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