



# CLV632-1831S01

CLV63x

**FIXED MOUNT BARCODE SCANNERS**

**SICK**  
Sensor Intelligence.



## Ordering information

| Type           | Part no. |
|----------------|----------|
| CLV632-1831S01 | 1062530  |

In order to achieve enclosure rating IP69K, please use only connection cables prescribed by SICK (see "Recommended accessories").

Other models and accessories → [www.sick.com/CLV63x](http://www.sick.com/CLV63x)



## Detailed technical data

### Features

|                                                    |                                         |
|----------------------------------------------------|-----------------------------------------|
| <b>Version</b>                                     | Short Range                             |
| <b>Connection type</b>                             | Ethernet                                |
| <b>Reading field</b>                               | Front                                   |
| <b>Sensor type</b>                                 | Raster scanner                          |
| <b>Optical focus</b>                               | Fixed focus                             |
| <b>Light source</b>                                | Light spot, laser, Visible, Red, 655 nm |
| <b>Light spot</b>                                  | Circular                                |
| <b>Laser class</b>                                 | 2 (IEC 60825-1:2014, EN 60825-1:2014)   |
| <b>Aperture angle</b>                              | ≤ 50°                                   |
| <b>Reading distance</b>                            | 63 mm ... 270 mm <sup>1)</sup>          |
| <b>Scanning frequency</b>                          | 400 Hz ... 1,200 Hz                     |
| <b>Code resolution</b>                             | 0.2 mm ... 0.5 mm                       |
| <b>Raster height, number of lines, at distance</b> | 15 mm, 8, 200 mm                        |

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

### Mechanics/electronics

|                          |                                                                                    |
|--------------------------|------------------------------------------------------------------------------------|
| <b>Connection type</b>   | 2 x M12 cylindrical connectors (1 x 17-pin male connector, 4-pin female connector) |
| <b>Supply voltage</b>    | 18 V DC ... 30 V DC                                                                |
| <b>Power consumption</b> | 5 W                                                                                |
| <b>Housing</b>           | Stainless steel                                                                    |
| <b>Housing color</b>     | Stainless steel (unpainted)                                                        |
| <b>Window material</b>   | Plastic                                                                            |
| <b>Enclosure rating</b>  | IP69K (DIN 40 050, part 9)                                                         |
| <b>Protection class</b>  | III (EN 61140)                                                                     |

<sup>1)</sup> At 25 °C.

|                               |                                      |
|-------------------------------|--------------------------------------|
| <b>Weight</b>                 | 890 g, without connecting cable      |
| <b>Dimensions (L x W x H)</b> | 85 mm x 154 mm x 84 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>                         | All current code types                                   |
| <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<br>500 (for multiplexer function in CAN operation) |
| <b>No. of multiple readings</b>               | 1 ... 99                                                 |

## Interfaces

|                               |                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Ethernet</b>               | ✓, TCP/IP, RS-232, RS-422, RS-485                                                                                                                                                                                                                                                                                                                                             |
| Type of fieldbus integration  | Optional over external fieldbus module CDF600<br>Optional over external fieldbus module CDF600-2                                                                                                                                                                                                                                                                              |
| Function                      | Data interface (read result output), Service interface<br>PROFINET Single Port, PROFINET Dual Port (optional via external connection module CDF600-2)<br>Data interface (read result output), Service interface<br>SICK CAN sensor network CSN (CAN controller/CAN device, multiplexer/server)<br>SICK CAN sensor network CSN (CAN controller/CAN device, multiplexer/server) |
| Data transmission rate        | 10/100 MBit/s<br>10/100 MBit/s<br>10/100 MBit/s<br>2,400 Baud ... 115.2 kBaud, AUX: 57.6 kBaud (RS-232)<br>20 kbit/s ... 1 Mbit/s<br>20 kbit/s ... 1 Mbit/s                                                                                                                                                                                                                   |
| <b>Digital inputs</b>         | 4 ("Sensor 1", "Sensor 2", 2 inputs via optional CMC600 in CDB650)                                                                                                                                                                                                                                                                                                            |
| <b>Digital outputs</b>        | 4 ("Result 1", "Result 2", 2 via optional CMC600 parameter memory in CDB650)                                                                                                                                                                                                                                                                                                  |
| <b>Reading pulse</b>          | Digital inputs                                                                                                                                                                                                                                                                                                                                                                |
| <b>Configuration software</b> | SOPAS ET                                                                                                                                                                                                                                                                                                                                                                      |

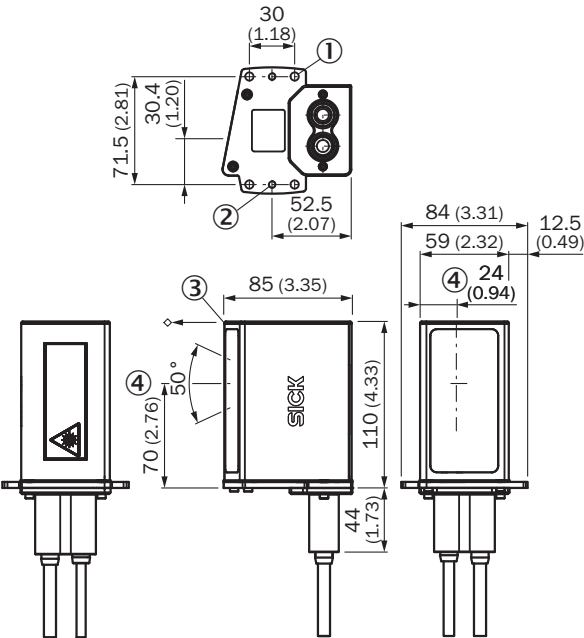
## Ambient data

|                                            |                                            |
|--------------------------------------------|--------------------------------------------|
| <b>Electromagnetic compatibility (EMC)</b> | EN 61000-6-3 (2001-10) / EN 61000-6-2:2005 |
| <b>Vibration resistance</b>                | EN 60068-2-6 (1995)                        |
| <b>Shock resistance</b>                    | EN 60068-2-27 (1993)                       |
| <b>Ambient operating temperature</b>       | 0 °C ... +40 °C                            |
| <b>Storage temperature</b>                 | -20 °C ... +70 °C                          |
| <b>Permissible relative humidity</b>       | 90 %, Non-condensing                       |
| <b>Ambient light immunity</b>              | 2,000 lx, on barcode                       |
| <b>Bar code print contrast (PCS)</b>       | ≥ 60 %                                     |

Classifications

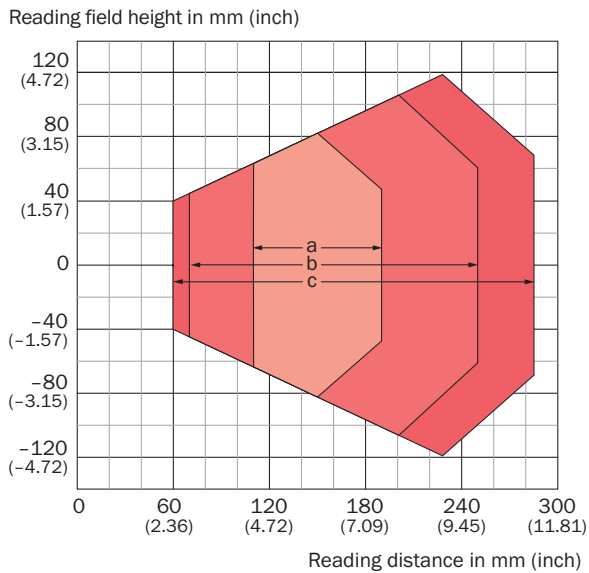
|                       |          |
|-----------------------|----------|
| <b>ECLASS 5.0</b>     | 27280102 |
| <b>ECLASS 5.1.4</b>   | 27280102 |
| <b>ECLASS 6.0</b>     | 27280102 |
| <b>ECLASS 6.2</b>     | 27280102 |
| <b>ECLASS 7.0</b>     | 27280102 |
| <b>ECLASS 8.0</b>     | 27280102 |
| <b>ECLASS 8.1</b>     | 27280102 |
| <b>ECLASS 9.0</b>     | 27280102 |
| <b>ECLASS 10.0</b>    | 27280102 |
| <b>ECLASS 11.0</b>    | 27280102 |
| <b>ECLASS 12.0</b>    | 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))

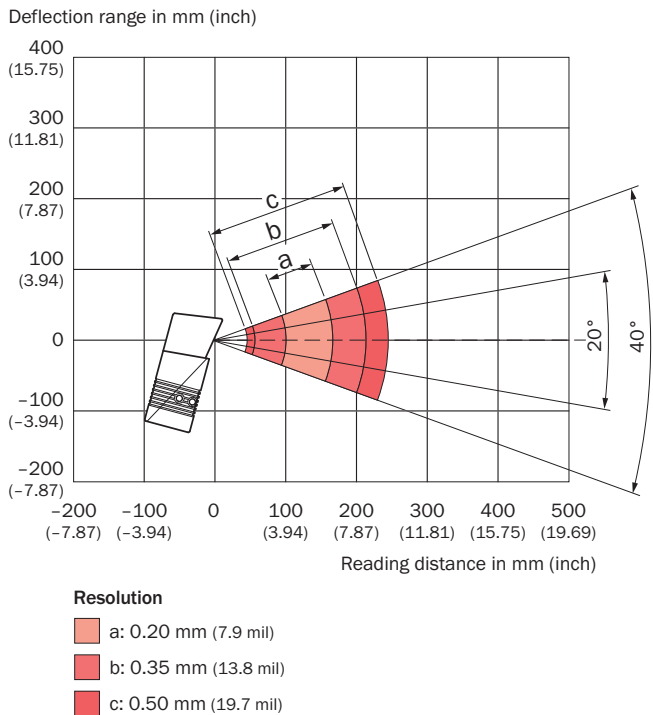


- ① Mounting holes,, Ø 5.5 mm (4 x)
- ② Threaded holes, M5 (2 x)
- ③ Reference point for reading distance (from housing edge to object)
- ④ Position light emission

## Reading field diagram

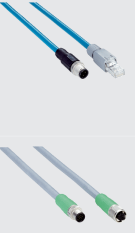


## Deflection width



### Recommended accessories

Other models and accessories → [www.sick.com/CLV63x](http://www.sick.com/CLV63x)

|                                                                                     | Brief description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Type               | Part no. |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------|
| Cloning modules                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |          |
|    | External parameter memory for integration in CDB620/CDB650/CDM42x                                                                                                                                                                                                                                                                                                                                                                                                                                   | CMC600-101         | 1042259  |
| Mounting brackets and plates                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |          |
|    | Bracket                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Mounting bracket   | 2068600  |
| Plug connectors and cables                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |          |
|    | <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</li> <li><b>Cable:</b> 2 m, 4-wire, AWG26</li> <li><b>Description:</b> Ethernet, shielded</li> </ul>                                                                                                                                                        | YM2D24-020EB2MRJA4 | 6050198  |
|                                                                                     | <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> 3 m, 17-wire</li> <li><b>Description:</b> Power, serial, CAN, digital I/Os, suitable for 2 A, shielded, to connection module CDB650</li> <li><b>Application:</b> Drag chain operation</li> </ul> | YM2A8D-030XXF2A8D  | 6051194  |
| Modules                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |          |
|  | <ul style="list-style-type: none"> <li><b>Sub product family:</b> CDB650</li> <li><b>Supported products:</b> Lector® series, CLV62x - CLV64x (depending on type), CLV69x, RFID read/write device, InspectorP series</li> <li><b>Brief description:</b> Connection device basic for connecting one sensor with 2 A fuse, 5 cable glands and RS-232 interface to sensor via M12, 17-pin female connector, all outputs available on screw/spring-loaded terminals.</li> </ul>                          | CDB650-204         | 1064114  |

### Recommended services

Additional services → [www.sick.com/CLV63x](http://www.sick.com/CLV63x)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Type                               | Part no. |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----------|
| Performance check                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |          |
| <ul style="list-style-type: none"> <li><b>Product area:</b> Fixed mount barcode scanners</li> <li><b>Range of services:</b> Inspection of defined functions, e.g., reading performance</li> <li><b>Travel expenses:</b> The prices do not include travel costs such as hotel, flight, travel time and expenses.</li> <li><b>Duration:</b> Additional work will be invoiced separately</li> </ul>                                                                                                                                                                                                | Performance check<br>CLV4xx/CLV6xx | 1682028  |
| Commissioning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                    |          |
| <ul style="list-style-type: none"> <li><b>Product area:</b> Fixed mount barcode scanners</li> <li><b>Range of services:</b> Inspection of connection, fine adjustment, optimization of parameters of SICK product as well as tests, Setup of previously defined functions of reading configuration, code configuration, data processing and network, interfaces or inputs and outputs</li> <li><b>Travel expenses:</b> The prices do not include travel costs such as hotel, flight, travel time and expenses.</li> <li><b>Duration:</b> Additional work will be invoiced separately</li> </ul> | Commissioning<br>CLV61x ... CLV64x | 1681925  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                          | Type                                                           | Part no. |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----------|
| Extended warranty                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                |          |
| <ul style="list-style-type: none"><li>• <b>Product area:</b> Identification solutions, machine vision, Detection and ranging solutions, safety camera sensors, Safety laser scanners, Safety radar sensors</li><li>• <b>Range of services:</b> The services correspond to the scope of the statutory manufacturer warranty (SICK general terms of delivery).</li><li>• <b>Duration:</b> Five-year warranty from delivery date.</li></ul> | Extended warranty for a total of five years from delivery date | 1680671  |

## 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](http://www.sick.com)