



# CLV601-1D200

CLV60x

**FIXED MOUNT BARCODE SCANNERS**

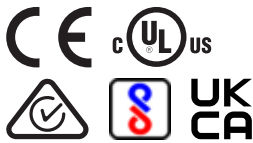
**SICK**  
Sensor Intelligence.



### Ordering information

| Type         | part no. |
|--------------|----------|
| CLV601-1D200 | 1079206  |

Other models and accessories → [www.sick.com/CLV60x](http://www.sick.com/CLV60x)



### Detailed technical data

#### Features

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Connection type</b>    | Cable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Reading field</b>      | Side                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Sensor type</b>        | Line scanner                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Optical focus</b>      | Fixed focus (31 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Sensor</b>             | CMOS line sensor                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Sensor resolution</b>  | 2,048 px                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>LED class</b>          | Risk group 0 (IEC 62471:2006-07, EN 62471:2008-09)                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Light source</b>       | Light spot, LED, Visible, Red, 626 nm                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Aperture angle</b>     | ≤ 71°                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Reading distance</b>   | 15 mm ... 70 mm <sup>1)</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Scanning frequency</b> | 750 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Reading angle</b>      | <div> <div>Tilt α</div> <div>Pitch β</div> <div>Skew γ</div> </div> <div> <div>± 5° (with code resolution ≥ 0.125 mm)</div> <div>± 10° (with code resolution ≥ 0.15 mm)</div> <div>± 15° (with code resolution ≥ 0.2 mm)</div> <div>± 25° (with code resolution ≥ 0.35 mm)</div> <div>± 6° (with code resolution ≥ 0.2 mm)</div> <div>± 15° (with code resolution ≥ 0.5 mm)</div> <div>± 20° (with code resolution ≥ 0.2 mm)</div> <div>± 30° (with code resolution ≥ 0.5 mm)</div> </div> |
| <b>Code resolution</b>    | 0.125 mm ... 0.5 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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

#### Mechanics/electronics

|                        |                                      |
|------------------------|--------------------------------------|
| <b>Connection type</b> | 1 x 9-pin D-sub male connector (2 m) |
| <b>Supply voltage</b>  | 5 V DC, ± 10 %                       |

|                               |                                         |
|-------------------------------|-----------------------------------------|
| <b>Power consumption</b>      | Typ. 1 W                                |
| <b>Housing material</b>       | Zinc diecast                            |
| <b>Housing color</b>          | Light blue (RAL 5012), black (RAL 9005) |
| <b>Window material</b>        | Plastic                                 |
| <b>Enclosure rating</b>       | IP40 (DIN 40 050)                       |
| <b>Protection class</b>       | III (VDE 0106/IEC 1010-1)               |
| <b>Weight</b>                 | 230 g, with connecting cable            |
| <b>Dimensions (L x W x H)</b> | 55 mm x 52 mm x 20 mm                   |
| <b>MTBF</b>                   | 100,000 h                               |

## Performance

|                                               |                                                                                                   |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------|
| <b>Readable code structures</b>               | 1D codes                                                                                          |
| <b>Bar code types</b>                         | All current code types, Code 39, Code 128, Code 93, Codabar, UPC / GTIN / EAN, Interleaved 2 of 5 |
| <b>Code printing process</b>                  | Label (printed codes)                                                                             |
| <b>Print ratio</b>                            | 2:1 ... 3:1                                                                                       |
| <b>No. of codes per scan</b>                  | 1 ... 1                                                                                           |
| <b>No. of codes per reading interval</b>      | 1 ... 15 (auto-discriminating)                                                                    |
| <b>No. of characters per reading interval</b> | 450                                                                                               |
| <b>Number of characters per code</b>          | ≤ 30                                                                                              |
| <b>No. of multiple readings</b>               | 1 ... 100                                                                                         |

## Interfaces

|                               |                                                                                                       |
|-------------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Serial</b>                 | ✓, RS-232                                                                                             |
| Function                      | Data interface (read result output), Service interface                                                |
| Data transmission rate        | 2,400 Baud ... 250 kBaud, AUX: 57.6 kBaud                                                             |
| <b>Digital inputs</b>         | 1 ("Input 1", Vin = max. 30 V)                                                                        |
| <b>Digital outputs</b>        | 2 ("Output 1", "Output 2", Iout = max. 50 mA)                                                         |
| <b>Reading pulse</b>          | Start: Digital input, free, command, auto pulse, stop: Digital input, free, command, timer, Good Read |
| <b>Optical indicators</b>     | 1 RGB LED (multifunctional)                                                                           |
| <b>Acoustic indicators</b>    | Beeper/buzzer (can be switched off, can be allocated as a result indication function)                 |
| <b>Configuration software</b> | SOPAS ET                                                                                              |

## Ambient data

|                                            |                                                |
|--------------------------------------------|------------------------------------------------|
| <b>Electromagnetic compatibility (EMC)</b> | EN 61000-6-3/A1:2011-03 / EN 61000-6-2:2005-08 |
| <b>Vibration resistance</b>                | EN 60068-2-6:2008-02                           |
| <b>Shock resistance</b>                    | EN 60068-2-27:2009-05                          |
| <b>Ambient operating temperature</b>       | 0 °C ... +50 °C                                |
| <b>Storage temperature</b>                 | -20 °C ... +70 °C                              |
| <b>Permissible relative humidity</b>       | 90 %, Non-condensing                           |
| <b>Ambient light immunity</b>              | 5,000 lx, on barcode                           |
| <b>Bar code print contrast (PCS)</b>       | ≥ 60 %                                         |

General notes

|                |                              |
|----------------|------------------------------|
| Items supplied | Single scanner, Safety Notes |
|----------------|------------------------------|

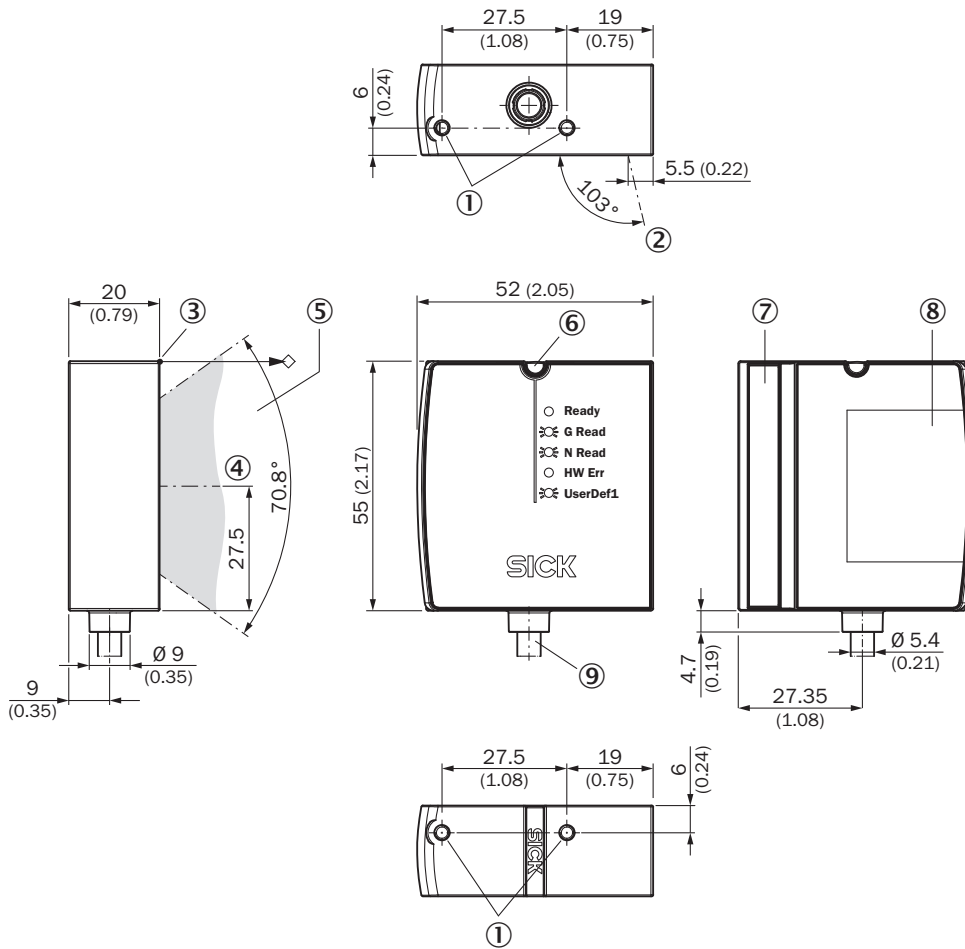
Certificates

|                                                                          |   |
|--------------------------------------------------------------------------|---|
| EU declaration of conformity                                             | ✓ |
| UK declaration of conformity                                             | ✓ |
| ACMA declaration of conformity                                           | ✓ |
| China RoHS                                                               | ✓ |
| cULus certificate                                                        | ✓ |
| BIS registration                                                         | ✓ |
| Information according to Art. 3 of Data Act<br>(Regulation EU 2023/2854) | ✓ |

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 |
| ETIM 5.0       | EC002550 |
| ETIM 6.0       | EC002550 |
| ETIM 7.0       | EC002550 |
| ETIM 8.0       | EC002550 |
| UNSPSC 16.0901 | 43211701 |

## Dimensional drawing CLV60x side

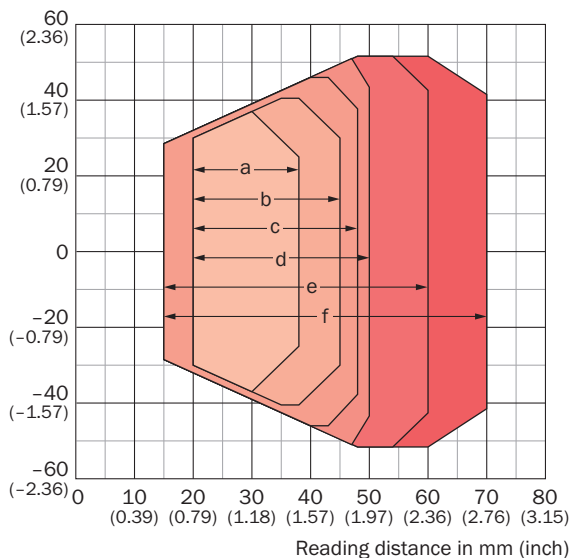


Dimensions in mm (inch)

- ① Mounting thread M3 x 5 mm
- ② Optical axis, reading window
- ③ Reading distance reference point
- ④ Reading field axis center
- ⑤ Reading field
- ⑥ status LED
- ⑦ Reading field
- ⑧ type label
- ⑨ Connection cable

## Reading field diagram

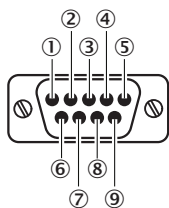
Reading field height in mm (inch)



### Resolution

|                       |                       |
|-----------------------|-----------------------|
| a: 0.125 mm (4.9 mil) | d: 0.25 mm (9.8 mil)  |
| b: 0.15 mm (5.9 mil)  | e: 0.35 mm (13.8 mil) |
| c: 0.2 mm (7.9 mil)   | f: 0.5 mm (19.7 mil)  |

## Connection type



- ① In<sub>1</sub>
- ② Rx D (HOST)
- ③ Tx D (HOST)
- ④ OUT1
- ⑤ GND
- ⑥ OUT2
- ⑦ Rx D
- ⑧ Tx D
- ⑨ +5 V

## 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)