



# CLV618-D2410

CLV61x

**FIXED MOUNT BARCODE SCANNERS**

**SICK**  
Sensor Intelligence.



### Ordering information

| Type         | part no. |
|--------------|----------|
| CLV618-D2410 | 1073188  |

Other models and accessories → [www.sick.com/CLV61x](http://www.sick.com/CLV61x)



### Detailed technical data

#### Features

|                           |                                                                                                                                                             |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Version</b>            | Long Range                                                                                                                                                  |
| <b>Connection type</b>    | Cable                                                                                                                                                       |
| <b>Reading field</b>      | Side (105°)                                                                                                                                                 |
| <b>Sensor type</b>        | Line scanner                                                                                                                                                |
| <b>Optical focus</b>      | Fixed focus                                                                                                                                                 |
| <b>Light source</b>       | Light spot, laser, Visible, Red, 655 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>     | ≤ 50°                                                                                                                                                       |
| <b>Reading distance</b>   | 44 mm ... 683 mm <sup>1)</sup>                                                                                                                              |
| <b>Scanning frequency</b> | 400 Hz ... 1,000 Hz                                                                                                                                         |
| <b>Code resolution</b>    | 0.35 mm ... 1 mm                                                                                                                                            |

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

#### Mechanics/electronics

|                          |                                                                                                                                                                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Connection type</b>   | 1 x "POWER" connection, 4-pin M12 plug (0.9 m), A-coded<br>1 x "PROFINET P1" connection, 4-pin M12 female connector, D-coded<br>1 x "PROFINET P2" connection, 4-pin M12 socket, D-coded<br>1 x Micro USB female connector, type B |
| <b>Supply voltage</b>    | 10 V DC ... 30 V DC                                                                                                                                                                                                               |
| <b>Power consumption</b> | 5 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 (DIN 40 050)                                                                                                                                                                                                                 |

<sup>1)</sup> At 25 °C.

|                               |                                      |
|-------------------------------|--------------------------------------|
| <b>Protection class</b>       | III (VDE 0106/IEC 1010-1)            |
| <b>Weight</b>                 | + 310.5 g                            |
| <b>Dimensions (L x W x H)</b> | 80 mm x 96 mm x 38 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, Code 39, Code 128, Code 93, Codabar, UPC / GTIN / EAN, Interleaved 2 of 5, Pharmacode |
| <b>Code printing process</b>                  | Label (printed codes)                                                                                         |
| <b>Print ratio</b>                            | 2:1 ... 3:1                                                                                                   |
| <b>No. of codes per scan</b>                  | 1 ... 10 (Standard decoder)<br>1 ... 6 (SMART620)                                                             |
| <b>No. of codes per reading interval</b>      | 1 ... 50 (auto-discriminating)                                                                                |
| <b>No. of characters per reading interval</b> | 1,500                                                                                                         |
| <b>No. of multiple readings</b>               | 1 ... 99                                                                                                      |

## Interfaces

|                               |                                                                                                                                                                                                                                                       |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PROFINET</b>               | ✓                                                                                                                                                                                                                                                     |
| Function                      | PROFINET Single Port, PROFINET Dual Port                                                                                                                                                                                                              |
| Data transmission rate        | 2-port Ethernet in accordance with IEEE 802.3 (baud rate 100 MBit/s, full-duplex transmission, 2-port switch, auto-negotiation, auto-crossover). Maximum data length is limited by the mode of communication (fragmentation protocol) to 4,000 bytes. |
| <b>USB</b>                    | ✓                                                                                                                                                                                                                                                     |
| Function                      | Service interface                                                                                                                                                                                                                                     |
| <b>Digital inputs</b>         | 1 (via PROFINET Ctrl bits)                                                                                                                                                                                                                            |
| <b>Digital outputs</b>        | 4 (via PROFINET Ctrl bits)                                                                                                                                                                                                                            |
| <b>Reading pulse</b>          | Non-powered, auto pulse, Fieldbus input, command                                                                                                                                                                                                      |
| <b>Optical indicators</b>     | 5 LEDs                                                                                                                                                                                                                                                |
| <b>Configuration software</b> | SOPAS ET                                                                                                                                                                                                                                              |

## Ambient data

|                                            |                                                           |
|--------------------------------------------|-----------------------------------------------------------|
| <b>Electromagnetic compatibility (EMC)</b> | EN 61000-6-4 (2007-01) + A1 (2011) / 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 ... +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 %                                                    |

## General notes

|                       |                |
|-----------------------|----------------|
| <b>Items supplied</b> | Single scanner |
|-----------------------|----------------|

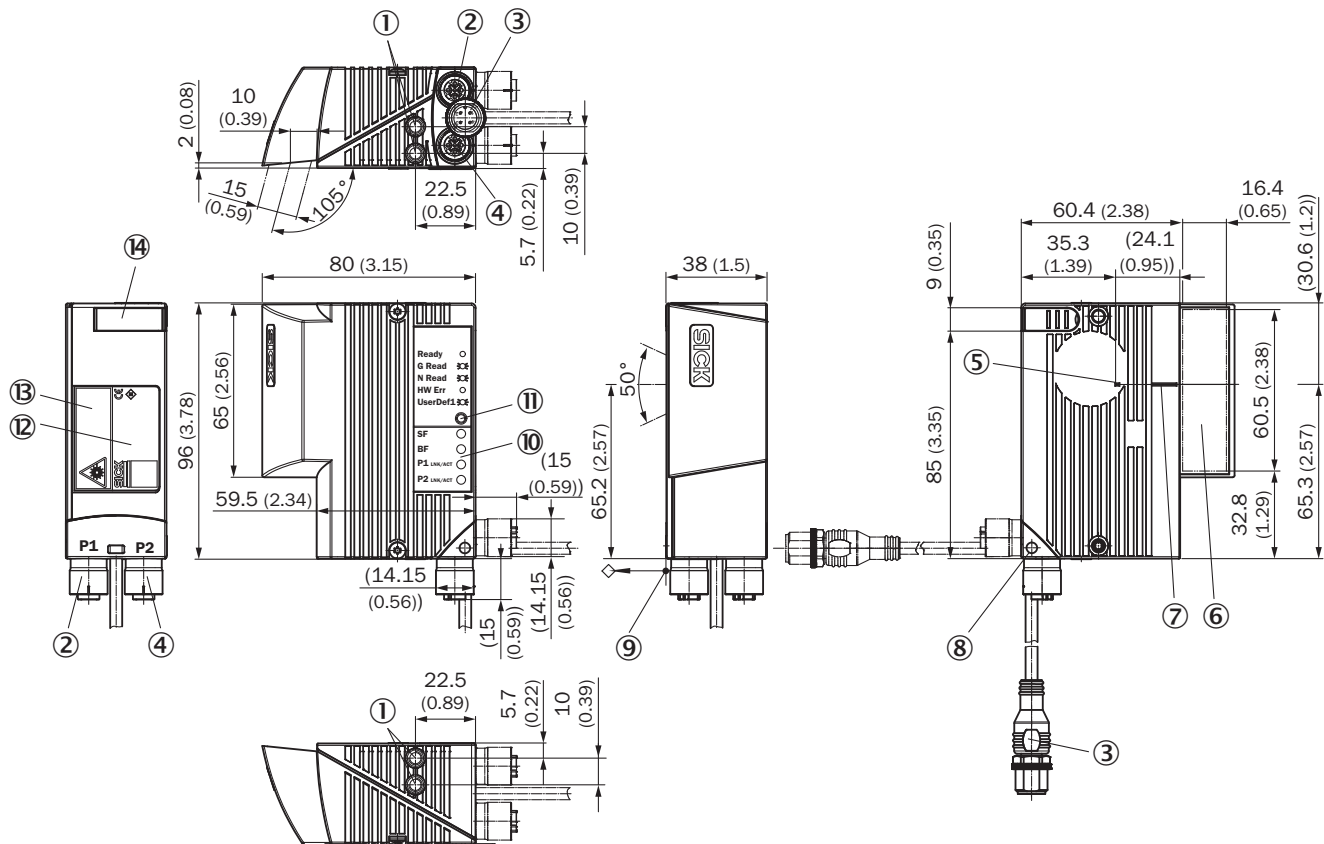
## Classifications

|                       |          |
|-----------------------|----------|
| <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 |

## Certificates

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

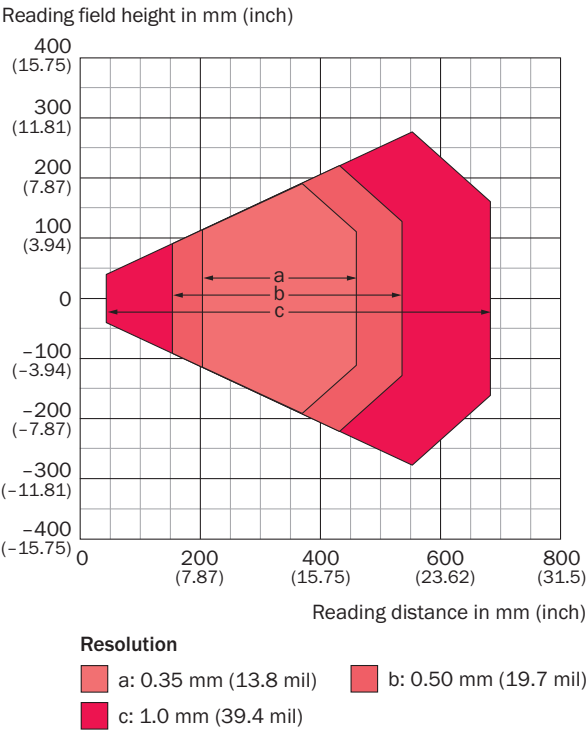
## Dimensional drawing



Dimensions in mm (inch)

- ① blind hole thread M5, 5 mm deep (2 x), for mounting
- ② P1 (Port 1) connection, 4-pin M12 female connector, D-coded
- ③ cable (0.9 m) with POWER connection, 4-pin M12 male connector, A-coded
- ④ P2 (Port 2) connection, 4-pin M12 female connector, D-coded
- ⑤ internal impact point: rotation point of the variable direction laser beam
- ⑥ reading window, side orientation
- ⑦ central position of the deflected laser beam in the V-shaped aperture angle
- ⑧ swivel connector unit (max 180° rotation angle from end position to end position)
- ⑨ reference point for reading distance (from housing edge to object)
- ⑩ LED (4 x), status indicator
- ⑪ RGB-LED (1 x), status display with signal color allocation for events
- ⑫ type label
- ⑬ laser warning label
- ⑭ cover for USB port, 4-pin female connector, Micro B type

Reading field diagram



## Recommended accessories

Other models and accessories → [www.sick.com/CLV61x](http://www.sick.com/CLV61x)

|                                                                                     | Brief description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Type                               | part no. |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----------|
| connectors and cables                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |          |
|    | <ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Male connector, Micro-B, 4-pin, straight</li> <li>• <b>Connection type head B:</b> Male connector, USB-A, 4-pin, straight</li> <li>• <b>Signal type:</b> USB 2.0</li> <li>• <b>Cable:</b> 2 m, 4-wire</li> <li>• <b>Description:</b> USB 2.0, unshielded</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                   | USB cable                          | 6036106  |
|    | <ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Flying leads</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Power</li> <li>• <b>Items supplied:</b> By the meter</li> <li>• <b>Cable:</b> 2-wire, Vulcanized Rubber</li> <li>• <b>Description:</b> Power, unshielded</li> <li>• <b>Note:</b> For use with connection clip 6022472</li> </ul>                                                                                                                                                                                                                                                                                                                   | Actuator Sensor Interface, LTGE-MW | 6022463  |
|    | <ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Female connector, M12, A-coded</li> <li>• <b>Signal type:</b> Power</li> <li>• <b>Description:</b> Power</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Actuator Sensor Interface, M12     | 6022472  |
|    | <ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Female connector, M12, 4-pin, straight, A-coded</li> <li>• <b>Connection type head B:</b> Male connector, M12, 4-pin, straight, A-coded</li> <li>• <b>Signal type:</b> Power</li> <li>• <b>Cable:</b> 2 m, PUR</li> <li>• <b>Description:</b> Power, silicone-free, shielded, Free of paint wetting impairment substances</li> <li>• <b>Note:</b> With fuse (1A) and green LED in the male connector., For connecting a CLV61x Dual Port sensor to a connection chip (part no. 6022472) and flat cable (part no. 6022463)</li> <li>• <b>Application:</b> Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul> | YX2A24-020UA4F2A24                 | 6060279  |
|  | <ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Flying leads</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Power</li> <li>• <b>Items supplied:</b> By the meter</li> <li>• <b>Cable:</b> 2-wire, PUR</li> <li>• <b>Description:</b> Power, Silicone-free, for dynamic applications, unshielded</li> <li>• <b>Note:</b> For use with connection clip 6022472</li> </ul>                                                                                                                                                                                                                                                                                        | Actuator Sensor Interface, LTGE-MW | 6061897  |
| Mounting systems                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |          |
|  | <ul style="list-style-type: none"> <li>• <b>Description:</b> Rod clamp for outer diameter of 12 ... 20 mm</li> <li>• <b>Items supplied:</b> Mounting hardware included</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Rod clamp                          | 2042801  |
|  | <ul style="list-style-type: none"> <li>• <b>Description:</b> Hanger-shaped mounting bracket</li> <li>• <b>Items supplied:</b> Mounting hardware included</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Mounting bracket                   | 2042800  |
|  | <ul style="list-style-type: none"> <li>• <b>Description:</b> Mounting bracket (simple bracket)</li> <li>• <b>Items supplied:</b> Mounting hardware included</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Mounting bracket                   | 2020410  |

## 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.”

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