



# CLV690-1000

CLV69x

**FIXED MOUNT BARCODE SCANNERS**

**SICK**  
Sensor Intelligence.



## Ordering information

Type	Part no.
CLV690-1000	1056601

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



## Detailed technical data

### Features

<b>Version</b>	Standard Density
<b>Connection type</b>	Depending on the cloning plug used
<b>Reading field</b>	Oscillating mirror
<b>Sensor type</b>	Oscillating mirror
<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 (IEC 60825-1:2014, EN 60825-1:2014)
<b>Aperture angle</b>	≤ 50°
<b>Reading distance</b>	500 mm ... 2,100 mm <sup>1)</sup>
<b>Scanning frequency</b>	400 Hz ... 1,200 Hz
<b>Code resolution</b>	0.3 mm ... 1 mm
<b>Oscillating mirror functions</b>	Fixed (adjustable position), oscillating (variable or fixed amplitude), one shot
Oscillation frequency	0.5 Hz ... 4 Hz
Angle of deflection	-20° ... 20° (can be adjusted via software)

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

### Mechanics/electronics

<b>Connection type</b>	Depending on the cloning plug used
<b>Supply voltage</b>	18 V DC ... 30 V DC

<sup>1)</sup> At 25 °C.

<b>Power consumption</b>	17 W
<b>Housing</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>	2,200 g
<b>Dimensions (L x W x H)</b>	182 mm x 128 mm x 97 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) 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

<b>Digital inputs</b>	6 ("Sensor 1" ... "Sensor 6")
<b>Digital outputs</b>	4 ("Result 1" ... "Result 4")
<b>Reading pulse</b>	Digital inputs, serial interface, auto pulse, CAN
<b>Optical indicators</b>	6 LEDs (Ready) , Result , laser , Data , CAN , LNK TX , Bar graph for displaying the reading rate percentage (10 LEDs)
<b>Control elements</b>	2 buttons
<b>Parameter storage</b>	Integrated in cloning plug
<b>Configuration software</b>	SOPAS ET

#### Ambient data

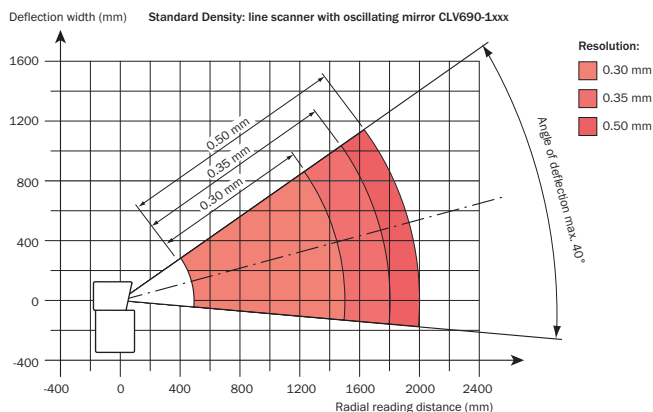
<b>Electromagnetic compatibility (EMC)</b>	EN 61000-6-4 (2007-01) + A1 (2011) EN 61000-6-2:2005-08
<b>Vibration resistance</b>	EN 60068-2-6:2008-02
<b>Shock resistance</b>	EN 60068-2-27:2009-05
<b>Ambient operating temperature</b>	0 °C ... +40 °C
<b>Storage temperature</b>	-20 °C ... +70 °C
<b>Permissible relative humidity</b>	90 %, Non-condensing
<b>Ambient light immunity</b>	2,000 lx, on barcode
<b>Bar code print contrast (PCS)</b>	≥ 60 %

#### Classifications

<b>eCl@ss 5.0</b>	27280102
<b>eCl@ss 5.1.4</b>	27280102
<b>eCl@ss 6.0</b>	27280102
<b>eCl@ss 6.2</b>	27280102
<b>eCl@ss 7.0</b>	27280102
<b>eCl@ss 8.0</b>	27280102
<b>eCl@ss 8.1</b>	27280102
<b>eCl@ss 9.0</b>	27280102
<b>eCl@ss 10.0</b>	27280102
<b>eCl@ss 11.0</b>	27280102
<b>eCl@ss 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










## Deflection width



## Recommended accessories

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

	Brief description	Type	Part no.
<b>Cloning module</b>			
	External parameter memory for integration in CDB620/CDB650/CDM42x	CMC600-101	1042259
<b>Mounting brackets and plates</b>			
	Mounting support with integrated vibration/shock absorption for suspended mounting (absorber elements above the CLV)	Mounting bracket with vibration/shock absorption for CLV69x	2088163
<b>Plug connectors and cables</b>			
	Head A: female connector, M12, 17-pin, straight, A-coded Head B: male connector, M12, 17-pin, straight, A-coded Cable: Power, serial, CAN, digital I/Os, suitable for 2 A, shielded, 2 m	YM2A8D-020XXF2A8D	6053230
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, RJ45, 4-pin, straight Cable: Ethernet, PROFINET, PUR, halogen-free, shielded, 2 m	YM2D24-020PN1MRJA4	2106182
	Head A: male connector, M12, 17-pin Male connector, M12, 5-pin Female connector, M12, 4-pin Cable: Power, Ethernet, serial, CAN, digital I/Os Plug housing I/O, Ethernet	Cloning plug	2062452
<b>Terminal and alignment brackets</b>			
	Quick-action lock system, mounting hardware included	Quick release	2016110

	Brief description	Type	Part no.
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/CLV69x](http://www.sick.com/CLV69x)

	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 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 CLV65x ... CLV69x	1681926
Service agreements		
<ul style="list-style-type: none"> <li>• <b>Product area:</b> Robot guidance systems, Track and trace systems, Driver assistance systems, Object detection systems, Profiling systems, Gateway systems, Quality control systems</li> <li>• <b>Range of services:</b> Maintenance, Troubleshooting, extended warranty, 8/5 remote support, 8/5 help desk</li> <li>• <b>Duration:</b> Duration is arranged individually with the customer and defined in the contract</li> </ul>	Bronze service agree- ments for Systems	1616164
<ul style="list-style-type: none"> <li>• <b>Product area:</b> Fixed mount barcode scanners</li> <li>• <b>Range of services:</b> According to the scope defined in the contract, for example extended warranty, repair service, availability guarantee as well as spare parts provided periodically by SICK (bracket with shock absorber), Other possible contractual elements</li> <li>• <b>Duration:</b> 5 year duration from delivery date of the initial hardware</li> </ul>	Forklift Package CLV69x for 5 years	1614613
Extended warranty		
<ul style="list-style-type: none"> <li>• <b>Product area:</b> Identification solutions, machine vision, Distance sensors, Detection and ranging solutions</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)