



CLV631-0831S01

CLV63x

FIXED MOUNT BAR CODE SCANNERS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
CLV631-0831S01	1062070

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



Detailed technical data

Features

Version	Mid Range
Connection type	Ethernet
Reading field	Front
Scanning method	Line scanner
Optical focus	Fixed focus
Light source	
	Light spot
Light spot	Laser, Visible, Red, 655 nm
Laser class	Circular
Aperture angle	2 (IEC 60825-1:2014, EN 60825-1:2014)
Scanning frequency	≤ 50°
Code resolution	400 Hz ... 1,200 Hz
Reading distance	0.25 mm ... 0.5 mm
	95 mm ... 430 mm ¹⁾

¹⁾ For details see reading field diagram.

Mechanics/electronics

Connection type	2 x M12 cylindrical connectors (1 x 17-pin male connector, 4-pin female connector)
Supply voltage	18 V DC ... 30 V DC
Power consumption	5 W
Housing	Stainless steel
Housing color	Stainless steel (unpainted)
Front screen	Plastic
Enclosure rating	IP69K (DIN 40 050, part 9)
Protection class	III (EN 61140)
Weight	+ 890 g, without connecting cable
Dimensions (L x W x H)	85 mm x 154 mm x 84 mm
MTBF	100,000 h

Performance

Readable code structures	1D codes
Bar code types	All current code types, Code 39, Code 128, Code 93, Codabar, GS1-128 / EAN 128, UPC / GTIN / EAN, Interleaved 2 of 5, Pharmacode, GS1 DataBar, Telepen, MSI/Plessey
Print ratio	2:1 ... 3:1
No. of codes per scan	1 ... 20 (Standard decoder) 1 ... 6 (SMART decoder)
No. of codes per reading interval	1 ... 50 (auto-discriminating)
No. of characters per reading interval	5,000 500 (for multiplexer function in CAN operation)
No. of multiple readings	1 ... 99

Interfaces

Ethernet	✓, TCP/IP
Function	Host, AUX
Data transmission rate	10/100 MBit/s
PROFINET	✓
Function	PROFINET Single Port, PROFINET Dual Port (optional via external connection module CDF600-2)
Data transmission rate	10/100 MBit/s
EtherNet/IP™	✓
Data transmission rate	10/100 MBit/s
EtherCAT	✓
Type of fieldbus integration	Optional over external fieldbus module CDF600
Serial	✓, RS-232, RS-422, RS-485
Function	Host, AUX
Data transmission rate	2,400 Baud ... 115.2 kBaud, AUX: 57.6 kBaud (RS-232)
CAN	✓
Function	SICK CAN sensor network CSN (master/slave, multiplexer/server)
Data transmission rate	20 kbit/s ... 1 Mbit/s
CANopen	✓
Data transmission rate	20 kbit/s ... 1 Mbit/s
PROFIBUS DP	✓
Type of fieldbus integration	Optional over external fieldbus module CDF600-2
DeviceNet™	✓
Type of fieldbus integration	Optional, over external connection module CDM + CMF
Digital inputs	4 ("Sensor 1", "Sensor 2", 2 inputs via optional CMC600 in CDB650)
Digital outputs	4 ("Result 1", "Result 2", 2 via optional CMC600 parameter memory in CDB650)
Reading pulse	Digital inputs, serial interface, auto pulse, CAN, non-powered
Configuration software	SOPAS ET

Ambient data

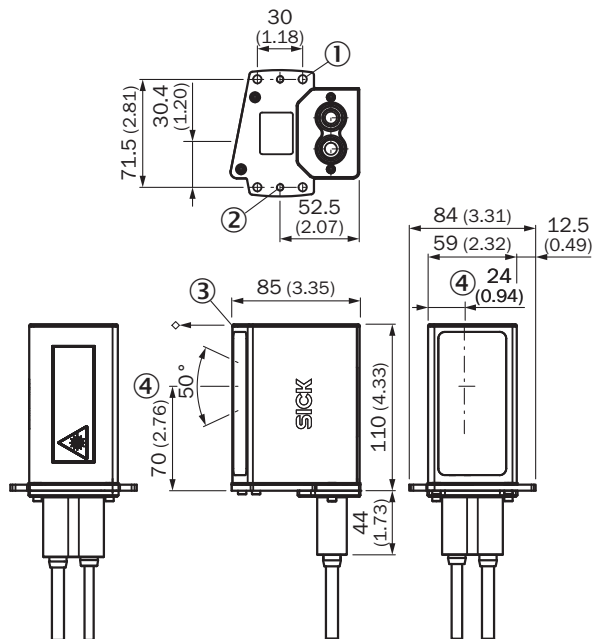
Electromagnetic compatibility (EMC)	EN 61000-6-3 (2001-10) / EN 61000-6-2:2005
Vibration resistance	EN 60068-2-6 (1995)
Ambient operating temperature	0 °C ... +40 °C

Storage temperature	-20 °C ... +70 °C
Permissible relative humidity	90 %, Non-condensing
Ambient light immunity	2,000 lx, on bar code
Bar code print contrast (PCS)	≥ 60 %

Classifications

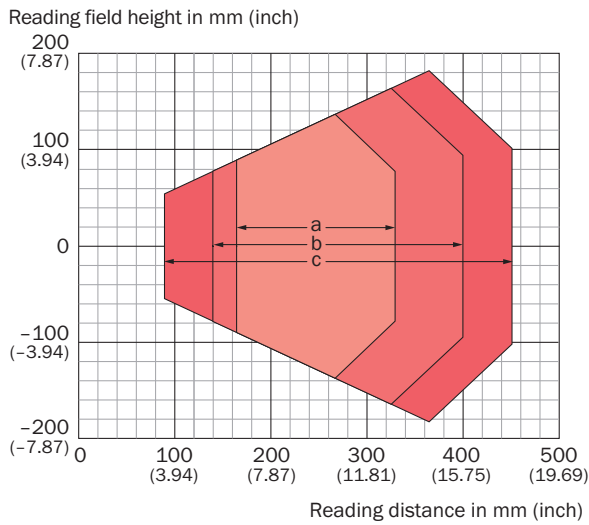
ECl@ss 5.0	27280102
ECl@ss 5.1.4	27280102
ECl@ss 6.0	27280102
ECl@ss 6.2	27280102
ECl@ss 7.0	27280102
ECl@ss 8.0	27280102
ECl@ss 8.1	27280102
ECl@ss 9.0	27280102
ECl@ss 10.0	27280102
ECl@ss 11.0	27280102
ETIM 5.0	EC002550
ETIM 6.0	EC002550
ETIM 7.0	EC002550
UNSPSC 16.0901	43211701

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



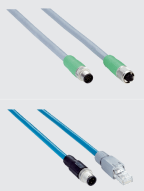
For devices with plastic reading window, the depth of field is reduced by approx. 10 %.

Resolution

- a: 0.25 mm (9.8 mil)
- b: 0.35 mm (13.8 mil)
- c: 0.50 mm (19.7 mil)

Recommended accessories

Other models and accessories → www.sick.com/CLV63x

	Brief description	Type	Part no.
Mounting brackets and plates			
	Bracket	Mounting bracket	2068600
Cloning module			
	External parameter memory for integration in CDB620/CDB650/CDM42x	CMC600-101	1042259
Modules			
	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.	CDB650-204	1064114
Plug connectors and cables			
	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, 3 m	YM2A8D-030XXXF2A8D	6051194
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, RJ45, 8-pin, straight Cable: Ethernet, shielded, 2 m	YM2D24-020EB2MRJA4	6050198

Recommended services

Additional services → www.sick.com/CLV63x

	Type	Part no.
Performance check		
• Product area: Fixed mount bar code scanners • Range of services: Inspection of defined functions, e.g., reading performance • Travel expenses: The prices do not include travel costs such as hotel, flight, travel time and expenses. • Duration: Additional work will be invoiced separately	Performance check CLV4xx/CLV6xx	1682028
Product, system, and software training		
• Range of services: SICK offers training courses for numerous target groups ranging from basic to expert levels, Training format and location can be worked out in collaboration with SICK	Training for the CLV6 series	1612231
Warranty extensions		
• Product area: Identification solutions, machine vision, Distance sensors, Detection and ranging solutions • Range of services: The services correspond to the scope of the statutory manufacturer warranty (SICK general terms and conditions of purchase) • Duration: Five-year warranty from delivery date.	Extended warranty for a total of five years from delivery date	1680671
Commissioning		
• Product area: Fixed mount bar code scanners • Range of services: 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 • Travel expenses: The prices do not include travel costs such as hotel, flight, travel time and expenses. • Duration: Additional work will be invoiced separately	Commissioning CLV61x ... CLV64x	1681925

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