



Bar code scanners CLV63x / CLV631 / Mid Range

CLV631-0831S01



Model Name > [CLV631-0831S01](#)
Part No. > [1062070](#)



At a glance

- Integrated pushbuttons for auto setup and reading diagnostics
- Integrated LED bar graph
- CAN, Ethernet TCP/IP, PROFINET, and EtherNet/IP available on board, no additional gateway needed (depending on variant)
- Enhanced SMART code reconstruction technology
- Flexible sorting, filtering, and logical functions
- Advanced, easy-to-use SOPAS configuration software
- High scanning frequency of up to 1,200 Hz
- Advanced remote diagnostics and network monitoring capabilities available over Ethernet

Your benefits

- Intelligent auto setup and multi-function pushbuttons save time during commissioning
- Easily execute firmware updates using the microSD memory card: no need for a PC
- Enhanced SMART technology reads damaged and partially obscured codes, increasing read rates
- Increased scanner intelligence enables sophisticated configuration of logical operations, reducing the control system programming effort. Data is then delivered in the desired format
- Real-time decoding at very high speeds
- Increased reading reliability due to high-performance computing power and a high scanning frequency



Features

Version:	Mid Range
Connection type:	Ethernet
Reading field:	Front
Scanner design:	Line scanner
Focus:	Fixed focus
Light source:	Visible red light (655 nm)
MTBF:	40,000 h
Laser class:	2 (EN 60825-1 (A2:2001-03))
Field of view:	≤ 50 °
Code resolution:	0.25 mm ... 0.5 mm

Reading distance:	95 mm ... 430 mm ¹⁾
Scanning frequency:	400 Hz ... 1,200 Hz

¹⁾ For details see reading field diagram

Performance

Bar code types:	Interleaved 2 of 5, All current code types, Codabar, Code 128, Code 39, Code 93, GS1 DataBar, GS1-128/EAN 128, MSI/Plessey, Pharmacode, Telepen, UPC/GTIN/EAN
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

Serial (RS-232, RS-422/485):	✓
Remark (Serial (RS-232, RS-422/485)):	AUX (only RS-232)
Function (Serial (RS-232, RS-422/485)):	Host, AUX
Data transmission rate (Serial (RS-232, RS-422/485)):	2,400 Baud ... 115 kBaud, AUX: 57.6 kBaud
Ethernet:	✓
Function (Ethernet):	Host, AUX
Protocol (Ethernet):	TCP/IP, EtherNet/IP, PROFINET, PROFINET Dual Port (optional via external connection module CDF600-2), EtherCAT (optional via external connection module CDF600)
Data transmission rate (Ethernet):	10/100 Mbit
CAN bus:	✓
Function (CAN bus):	SICK CAN sensor network (Master/Slave, Multiplexer/Server)
Protocol (CAN bus):	CANopen, CSN (SICK CAN Sensor Network)
Data transmission rate (CAN bus):	20 kbit/s ... 1 Mbit/s
PROFIBUS DP:	✓
Remark (PROFIBUS DP):	Optional via external connection module (CDF600-2)
DeviceNet:	✓
Remark (DeviceNet):	Optional via external connection module (CDM + CMF)
Switching inputs:	4 ("Sensor 1", "Sensor 2", 2 inputs via optional CMC600 in CDB650)
Switching outputs:	4 ("Result 1", "Result 2", 2 via CMC600 in CDB650)
Reading pulse:	Auto pulse, CAN, Non-powered, Switching inputs, Serial interface
Configuration software:	SOPAS ET

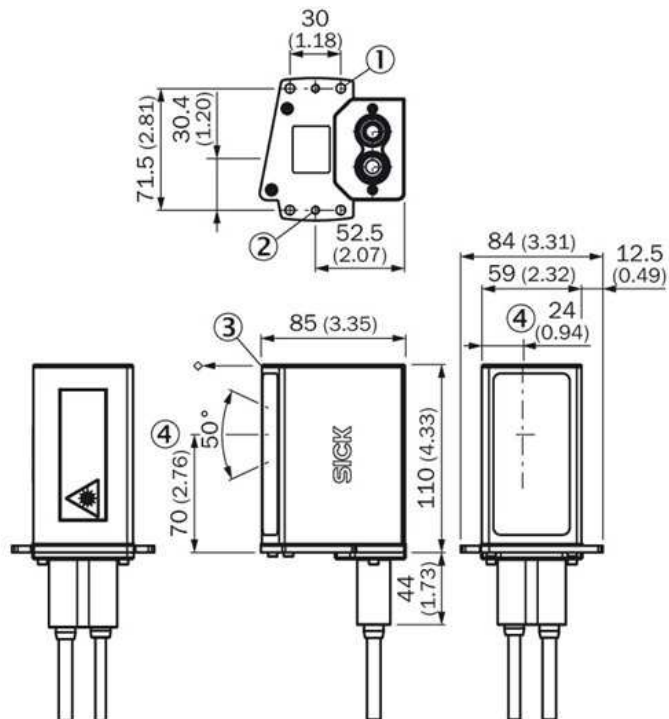
Mechanics/electronics

Electrical connection:	2 x M12 cylindrical connectors (1 x 17-pin male connector, 4-pin female connector)
Operating voltage:	18 V DC ... 30 V DC
Power consumption:	5 W
Housing:	Stainless steel
Housing color:	Stainless steel (unpainted)
Front screen:	Plastic
Enclosure rating:	IP 69K (DIN 40 050, part 9)
Protection class:	III (EN 61140)
Weight:	890 g, without connecting cable
Dimensions:	85 mm x 154 mm x 84 mm

Ambient data

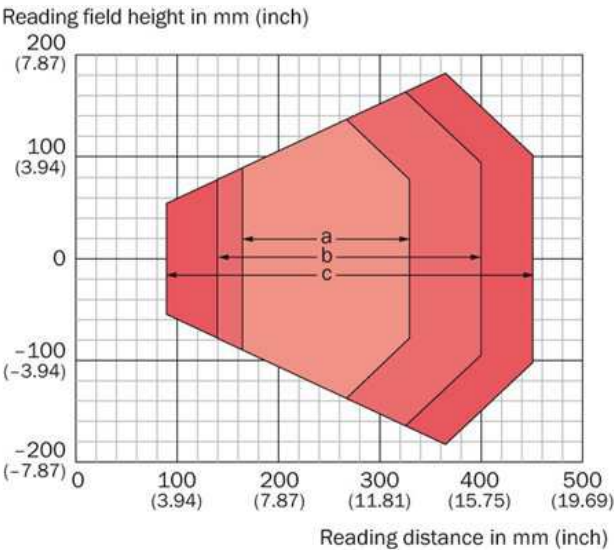
Electromagnetic compatibility (EMC):	EN 61000-6-3 (2001-10)/EN 61000-6-2:2005
Vibration resistance:	EN 60068-2-6 (1995)
Shock resistance:	EN 60068-2-27 (1993)
Ambient operating temperature:	0 °C ... +40 °C
Storage temperature:	-20 °C ... +70 °C
Permissible relative humidity:	90 %, non-condensing
Bar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

Dimensional drawing



- |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) | |

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