Online data sheet



CLV631-3000

CLV63x

BAR CODE SCANNERS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
CLV631-3000	1041984

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

Detailed technical data

Features

Version	Mid Range
Connection type	Cable
Reading field	Side (105°)
Scanner design	Raster scanner
Focus	Fixed focus
Light source	Visible red light (655 nm)
MTBF	40,000 h
Laser class	2 (EN 60825-1 (A2:2001-03), IEC 60825-1 : 2007-03, Ed. 2.0)
Aperture angle	≤ 50°
Scanning frequency	400 Hz ... 1,200 Hz
Code resolution	0.25 mm ... 0.5 mm
Reading distance	74 mm ... 412 mm [1)]
Raster height, number of lines, at distance	15 mm, 8, 185 mm
Heating	Optional

[1)] For details see reading field diagram.

Performance

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

PROFINET	✓

Function	PROFINET Dual Port (optional via external connection module CDF600-2)
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 (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 via external connection module CDM + CMF
Switching inputs	4 (“Sensor 1”, “Sensor 2”, 2 inputs via optional parameter storage CMC600 in CDB620/ CDM420)
Switching outputs	4 (“Result 1”, “Result 2”, 2 outputs via optional parameter storage CMC600 in CDB620/ CDM420)
Reading pulse	Switching input “Sensor 1”, non-powered, serial interface, auto pulse, CAN
Optical indicators	6 LEDs (Ready, Result, laser, Data, CAN, LNK TX, Bar graph for displaying the reading rate percentage (10 LEDs))
Acoustic indicators	Beeper/buzzer (can be switched off, can be allocated as a result indication function)
Operating elements	2 buttons (choose and start/stop functions)
Configuration software	SOPAS ET
Memory card	MicroSD memory card (flash card) 512 MB, optional

Mechanics/electronics

Electrical connection	1 x 15-pin D-Sub HD male connector (0.9 m)
Operating voltage	18 V DC ... 30 V DC
Power consumption	5 W
Housing	Aluminum die cast
Housing color	Light blue (RAL 5012)
Front screen	Glass
Enclosure rating	IP65 (EN 60529)
Protection class	III (EN 61140)
Weight	340 g, with connecting cable
Dimensions (L x W x H)	80 mm x 96 mm x 38 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
Ambient light immunity	2,000 lx, on bar code
Bar code print contrast (PCS)	≥ 60 %

General notes

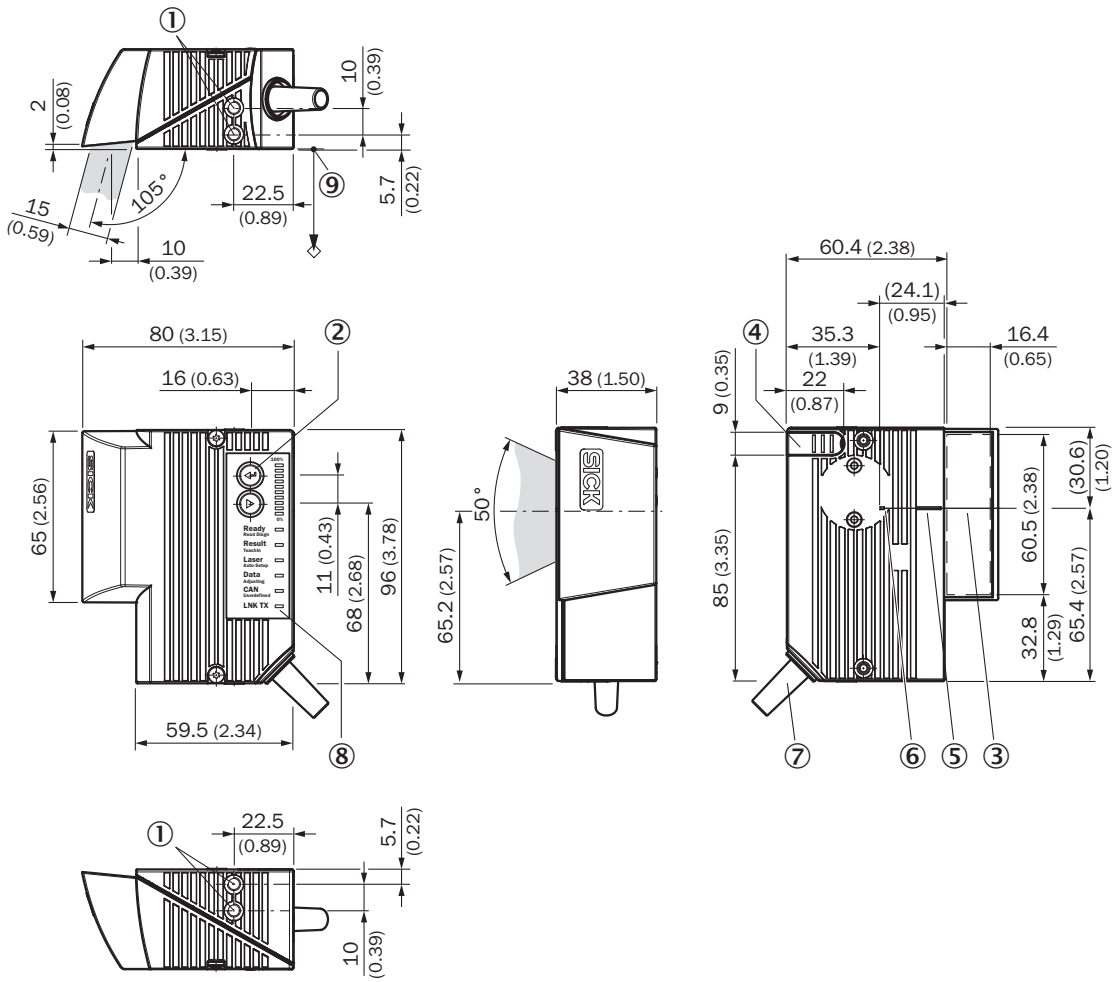
Note on use	For Ethernet connection please use an Ethernet version of CLV6xx

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
ETIM 5.0	EC002550
ETIM 6.0	EC002550
UNSPSC 16.0901	43211701

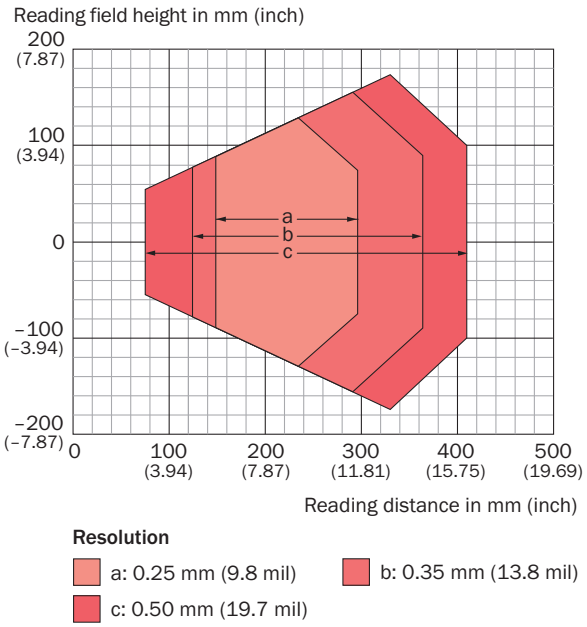
Dimensional drawing (Dimensions in mm (inch))

CLV63x/64x Standard, side



① Blind hole thread M5, 5 mm deep (2 x), for mounting
② Function button (2 x)
③ Reading field
④ Cover for the microSD memory card
⑤ Central position of the deflected laser beam in the V-shaped aperture angle
⑥ Internal impact point: rotation point of the variable direction laser beam
⑦ Cable with 15-pin D-sub HD male connector
⑧ LED status indicator (6x) and bar graph
⑨ Reference point for reading distance (from housing edge to object)

Reading field diagram



Recommended accessories

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

	Brief description	Type	Part no.
Mounting brackets and plates			
	Hanger-shaped mounting bracket, thermally isolated for use with heating devices, mounting hardware included	Mounting bracket	2050705
	Hanger-shaped mounting bracket, mounting hardware included	Mounting bracket	2042800
Modules			
	Small connection module for one sensor, 4 cable glands, base for CMC600	CDB620-001	1042256
	Modular connection module for one sensor	CDM420-0001	1025362

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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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