CLV640-6831S01

CLV64x

FIXED MOUNT BARCODE SCANNERS

SICK
Sensor Intelligence.

CLV640-6831S01 | CLV64x
FIXED MOUNT BARCODE SCANNERS

Ordering information

Type	Part no.
CLV640-6831S01	1063932

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/CLV64x

Detailed technical data

Features

Version	Standard Density
Connection type	Ethernet
Reading field	Front
Sensor type	Line scanner
Optical focus	Dynamic focus control
Light source	Light spot, laser, Visible, Red, 655 nm
Light spot	Circular
Laser class	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)
Aperture angle	≤ 50°
Reading distance	63 mm … 717 mm [1]
Scanning frequency	400 Hz … 1,200 Hz
Code resolution	0.2 mm … 1 mm

[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	5.5 W
Housing material	Stainless steel
Housing color	Stainless steel (unpainted)
Window material	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

[1] At 25 °C.

MTBF	100,000 h
MTTF	40,000 h (Laser diode) [1]

[1] At 25 °C.

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
Code printing process	Label (printed codes)
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	Data interface (read result output), Service interface
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	Data interface (read result output), Service interface
Data transmission rate	2,400 Baud ... 115.2 kBaud, AUX: 57.6 kBaud (RS-232)
CAN	✓
Function	SICK CAN sensor network CSN (CAN controller/CAN device, 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
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
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)
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 barcode
Bar code print contrast (PCS)	≥ 60 %

Classifications

ECLASS 5.0	27280102
ECLASS 5.1.4	27280102
ECLASS 6.0	27280102
ECLASS 6.2	27280102
ECLASS 7.0	27280102
ECLASS 8.0	27280102
ECLASS 8.1	27280102
ECLASS 9.0	27280102
ECLASS 10.0	27280102
ECLASS 11.0	27280102
ECLASS 12.0	27280102
ETIM 5.0	EC002550
ETIM 6.0	EC002550
ETIM 7.0	EC002550
ETIM 8.0	EC002550
UNSPSC 16.0901	43211701

Dimensional drawing (Dimensions in mm (inch))
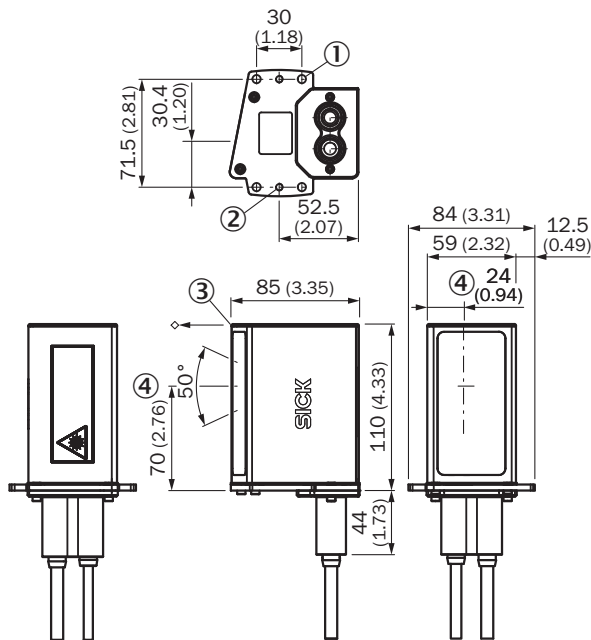
① Mounting holes,, Ø 5.5 mm (4 x)
② Threaded holes, M5 (2 x)
③ Reference point for reading distance (from housing edge to object)
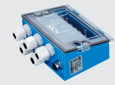④ Position light emission

Reading field diagram

Reading field height in mm (inch)

Reading distance in mm (inch)
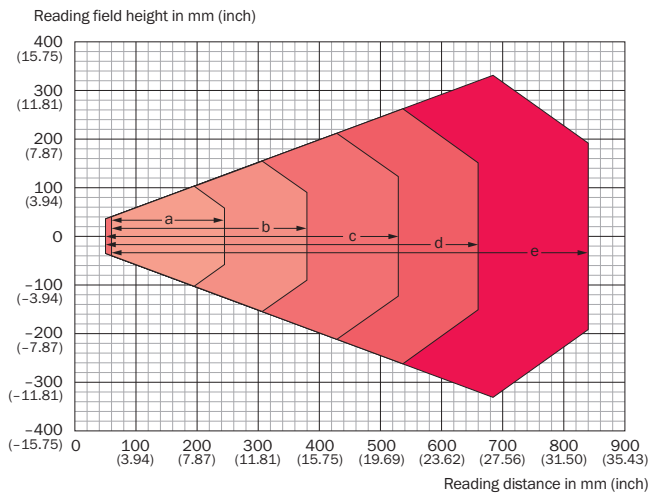
Resolution

■ a: 0.20 mm (7.9 mil)	■ b: 0.25 mm (9.8 mil)	■ c: 0.35 mm (13.8 mil)
■ d: 0.50 mm (19.7 mil)	■ e: 1.00 mm (39.4 mil)	

The depth of field is reduced by approx. 10% for devices with plastic lenses.

Recommended accessories

Other models and accessories ➜ www.sick.com/CLV64x

	Brief description	Type	Part no.
Cloning modules			
	External parameter memory for integration in CDB620/CDB650/CDM42x	CMC600-101	1042259
Modules			
	• **Accessory group:** 4D*pro*Connectivity • **Product family:** Connection Device Basic • **Sub product family:** CDB650 • **Supported products:** Lector seriesCLV62x - CLV64x (depending on type)CLV69xRFID read/write deviceInspectorP series • **Brief description:** 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
Mounting brackets and plates			
	Bracket	Mounting bracket	2068600
	• **Connection type head A:** Female connector, M12, 17-pin, straight, A-coded • **Connection type head B:** Male connector, M12, 17-pin, straight, A-coded • **Signal type:** Power, serial, CAN, digital I/Os • **Cable:** 3 m, 17-wire • **Description:** Power, serial, CAN, digital I/Os, suitable for 2 A, shielded, to connection module CDB650 • **Application:** Drag chain operation	YM2A8D-030XXXF2A8D	6051194
	• **Connection type head A:** Male connector, M12, 4-pin, straight, D-coded • **Connection type head B:** Male connector, RJ45, 8-pin, straight • **Signal type:** PROFINET • **Cable:** 2 m, 4-wire, AWG26, PVC • **Description:** PROFINET, shielded	YM2D24-020EB2MRJA4	6050198

Recommended services

Additional services ➜ www.sick.com/CLV64x

	Type	Part no.
Performance check		
• **Product area:** Fixed mount barcode scanners • **Range of services:** Inspection of defined functions, e.g., reading performance • **Duration:** Additional work will be invoiced separately	Performance check CLV	1682028
Commissioning		
• **Product area:** Fixed mount barcode 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 • **Duration:** Additional work will be invoiced separately	Commissioning CLV61x ... CLV64x	1681925

	Type	Part no.
Extended warranty		
• **Product area:** Machine vision, LiDAR sensors, safety camera sensors, Safety laser scanners, Safety radar sensors, Radar sensors, Fixed mount barcode scanners, Image-based code readers, RFID, Mobile handheld scanners • **Range of services:** The services correspond to the scope of the statutory manufacturer warranty (SICK general terms of delivery). • **Duration:** Five-year warranty from delivery date.	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."

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