



CLV690-1000

CLV69x

BAR CODE SCANNERS

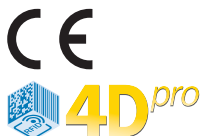
SICK
Sensor Intelligence.



Ordering information

Type	Part no.
CLV690-1000	1056601

Other models and accessories → www.sick.com/CLV69x



Detailed technical data

Features

Version	Standard Density
Connection type	Depending on the cloning plug used
Reading field	Oscillating mirror
Scanner design	Line scanner
Focus	Auto focus (alternative: dynamic focus control)
No. of distance configurations	≤ 8
Focus adjustment time	≤ 20 ms
Focus trigger source	Data interface / switching inputs
Light source	Visible red light (660 nm)
MTBF	100,000 h
Laser class	2 (IEC 60825-1 (2007-3), EN 60825-1 (2008-05))
Aperture angle	≤ 50°
Scanning frequency	400 Hz ... 1,200 Hz
Code resolution	0.25 mm ... 1 mm
Reading distance	500 mm ... 2,100 mm ¹⁾
Oscillating mirror functions	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)
Heating	No

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, GS1-128 / EAN 128, 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
No. of multiple readings	1 ... 100

Interfaces

Ethernet	✓, TCP/IP
Remark	Only with cloning plug I/O, CAN IN/OUT or CAN Redundant
Function	Host, AUX
Data transmission rate	10/100 MBit/s
PROFINET	✓
Remark	Only with cloning plug I/O, CAN IN/OUT or CAN Redundant
Function	PROFINET Dual Port (optional via external connection module CDF600-2)
EtherNet/IP™	✓
Remark	Only with cloning plug I/O, CAN IN/OUT or CAN Redundant
Data transmission rate	10/100 MBit/s
Serial	✓, RS-232, RS-422, RS-485
Remark	Only with cloning plug D-Sub and Ethernet
Function	Host, AUX (only RS-232)
Data transmission rate	0.3 kBaud ... 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
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
Switching inputs	6 ("Sensor 1" ... "Sensor 6")
Switching outputs	4 ("Result 1" ... "Result 4")
Reading pulse	Switching inputs, 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))
Operating elements	2 buttons
Parameter storage	Integrated in cloning plug
Configuration software	SOPAS ET

Mechanics/electronics

Electrical connection	Depending on the cloning plug used
Operating voltage	18 V DC ... 30 V DC
Power consumption	17 W
Housing	Aluminum die cast
Housing color	Light blue (RAL 5012)
Front screen	Glass

Enclosure rating	IP65 (EN 60529/A1 (2002-02))
Electrical safety	In accordance with UL 60950-1 certification
Weight	2,200 g
Dimensions (L x W x H)	182 mm x 128 mm x 97 mm

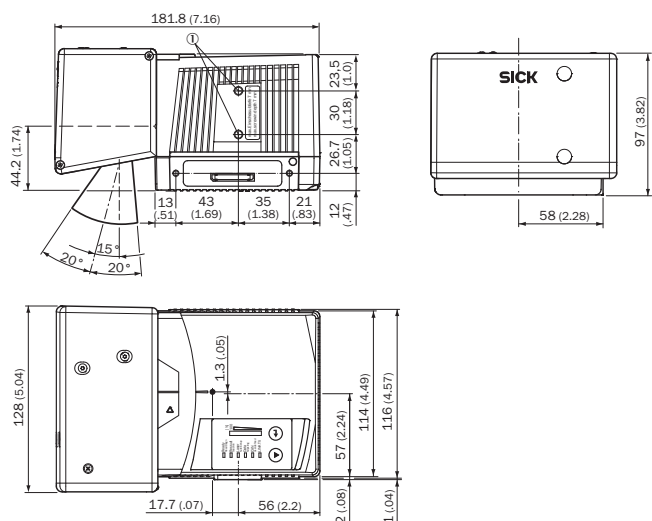
Ambient data

Electromagnetic compatibility (EMC)	EN 61000-6-4 (2007-01) + A1 (2011) EN 61000-6-2 (2005-08)
Vibration resistance	EN 60068-2-6 (2008-02)
Shock resistance	EN 60068-2-27 (2009-05)
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

Classifications

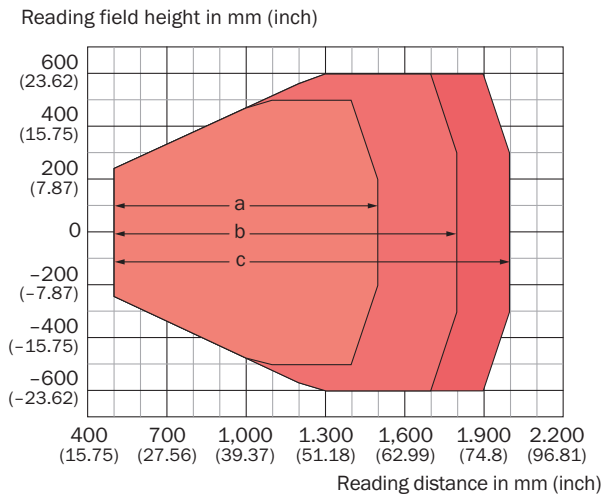
ECl@ss 5.0	27280102
ECl@ss 5.1.4	27280102
ECl@ss 6.0	27280102
ECl@ss 6.2	27280102
ECl@ss 7.0	27280102
ECl@ss 8.0	27280102
ECl@ss 8.1	27280102
ECl@ss 9.0	27280102
ETIM 5.0	EC002550
ETIM 6.0	EC002550
UNSPSC 16.0901	43211701

Dimensional drawing (Dimensions in mm (inch))



① M6 blind tapped holes, 7 mm deep (2 x), for mounting

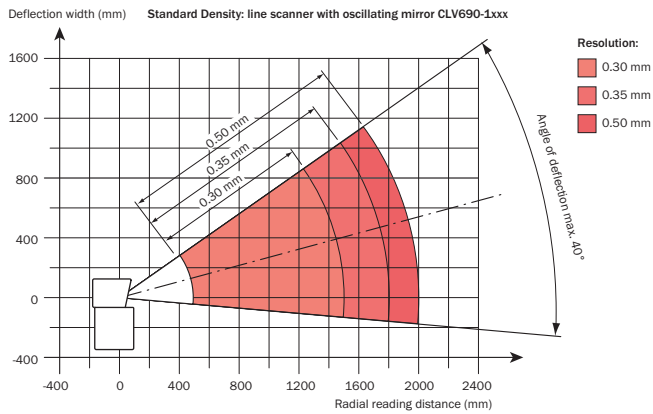
Reading field diagram



Resolution


- a: 0.30 mm (11.8 mil)
- b: 0.35 mm (13.8 mil)
- c: 0.50 mm (19.7 mil)

Deflection width



Recommended accessories

Other models and accessories → www.sick.com/CLV69x

	Brief description	Type	Part no.
Terminal and alignment brackets			
	Quick-action lock system, mounting hardware included	Quick release	2016110

	Brief description	Type	Part no.
Mounting brackets and plates			
	Simple mounting bracket	Mounting bracket	2013824
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
	Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface: 2 x M12, male connector/female connector, 5-pin)	CDF600-2100	1058965
	Fieldbus proxy/gateway for connecting one identification sensor to PROFINET-IO networks (interface 2 x M12, female connector/female connector, 4-pin)	CDF600-2200	1062460
	Modular connection module for one sensor, 2 A fuse	CDM420-0006	1058634
Plug connectors and cables			
	Head A: female connector, M12, 17-pin, straight, A-coding Head B: male connector, M12, 17-pin, straight, A-coding Cable: Power, serial, CAN, digital I/Os, drag chain use, suitable for 2 A, suitable for refrigeration, shielded, 2 m	Connection cable (male connector - female connector)	6053230
	Head A: female connector, M12, 17-pin, straight Head B: male connector, D-Sub-HD, 15-pin, straight Cable: Power, serial, CAN, digital I/Os, shielded, 2 m	Connection cable (male connector - female connector)	2055419
	Head A: female connector, M12, 17-pin, straight, A-coding Head B: male connector, M12, 17-pin, straight, A-coding Cable: Power, serial, CAN, digital I/Os, suitable for 2 A, drag chain use, shielded, 2 m	Connection cable (male connector - female connector)	6052286
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, RJ45, 8-pin, straight Cable: Ethernet, twisted pair, PUR, halogen-free, shielded, 2 m	SSL-2J04-G02ME	6034414
	Head A: male connector, M12, 17-pin Male connector, M12, 5-pin Female connector, M12, 4-pin Cable: Power, Ethernet, serial, CAN Plug housing I/O, Ethernet	Cloning plug	2062452
	Head A: Female connector (AUX), M12, 5-pin Female connector, M12, 5-pin Male connector, M12, 5-pin Cable: Power, CAN Plug housing CAN IN/OUT	Cloning plug	2062453
	Head A: male connector, D-Sub-HD, 15-pin Female connector, D-Sub-HD, 15-pin Cable: Power, serial, CAN, digital I/Os Plug housing	Cloning plug	2062450
	Head A: male connector, M12, 5-pin Head B: female connector, M12, 5-pin Cable: Power, CAN, Ethernet Plug housing CAN IN/OUT Ethernet	Cloning plug	2074708

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