



CLV490-3010

CLV49x

BAR CODE SCANNERS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
CLV490-3010	1019313

Other models and accessories → www.sick.com/CLV49x



Detailed technical data

Features

Version	High Density
Connection type	Standard
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	Switching inputs "IN 0 ... IN 4" / data interface / timer
Light source	Visible red light (650 nm)
MTBF	80,000 h
Laser class	2 (DIN EN 60825-1)
Aperture angle	≤ 50°
Scanning frequency	600 Hz ... 1,200 Hz
Code resolution	0.17 mm ... 0.4 mm
Reading distance	400 mm ... 1,600 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)

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
Print ratio	2:1 ... 3:1
No. of codes per scan	1 ... 12 (Standard decoder) 1 ... 6 (SMART decoder)
No. of codes per reading interval	1 ... 50 (auto-discriminating)

No. of characters per reading interval	600
No. of multiple readings	1 ... 99

Interfaces

Serial (RS-232, RS-422/-485)	✓, AUX (only RS-232)
Function	Host, AUX
Data transmission rate	300 Baud ... 57,600 Baud, AUX: 9,600 baud
Ethernet	✓, optional via external connection module (CDM + CMF)
CAN bus	✓
Function	SICK CAN sensor network (Master/Slave, Multiplexer)
Data transmission rate	20 kbit/s ... 1 Mbit/s
Protocol	CANopen, CSN (SICK CAN Sensor Network)
PROFIBUS DP	✓, optional via external connection module (CDM + CMF)
DeviceNet	✓, optional via external connection module (CDM + CMF)
Switching inputs	6 (Sensor, IN 0 ... IN 4)
Switching outputs	4 ("Result 1" ... "Result 4")
Reading pulse	Switching input "Sensor" (+ "IN 4"), non-powered, data interface, OTS (Omni tracking)
Optical indicators	4 LEDs (function indicator)

Mechanics/electronics

Electrical connection	1 x 15-pin D-sub HD plug 1 x 15-pin D-Sub HD device female connector
Operating voltage	18 V DC ... 30 V DC
Power consumption	18 W
Housing	Aluminum die cast, no materials containing silicone on outside
Housing color	Light blue (RAL 5012)
Enclosure rating	IP 65 (DIN 40 050)
Protection class	III (VDE 0106)
Weight	2,200 g
Dimensions (L x W x H)	183 mm x 127.5 mm x 97.5 mm

Ambient data

Electromagnetic compatibility (EMC)	EN 61000-6-2 (2001-10) EN 61000-6-3 (2001-10) EN 61000-6-3 / A11 (2004-07)
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

General notes

Life cycle phase	Discontinued
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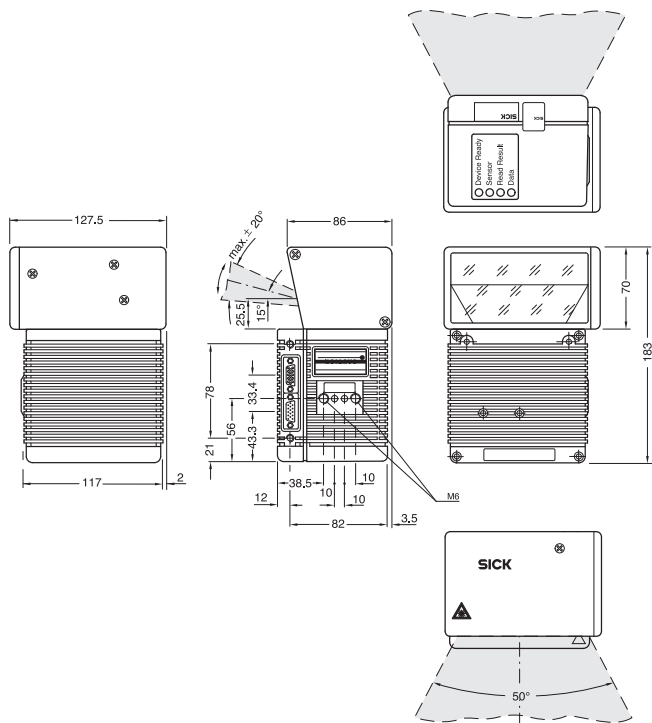
Classifications

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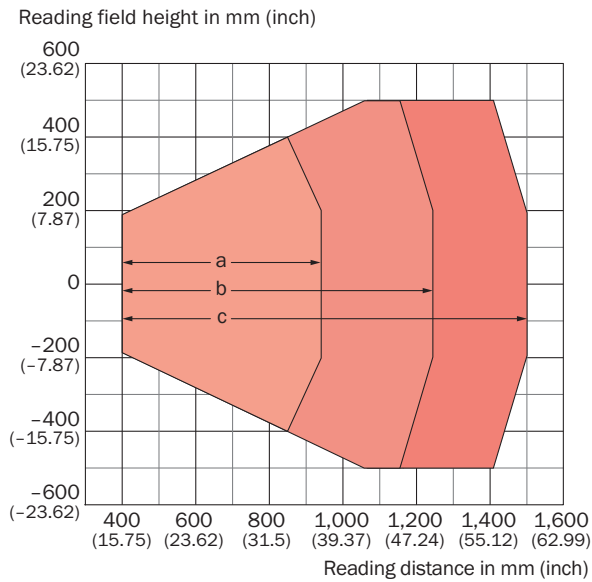
ECI@ss 5.1.4	27280102
ECI@ss 6.0	27280102
ECI@ss 6.2	27280102
ECI@ss 7.0	27280102
ECI@ss 8.0	27280102
ECI@ss 8.1	27280102
ECI@ss 9.0	27280102
ETIM 5.0	EC002550
ETIM 6.0	EC002550
UNSPSC 16.0901	43211701

Dimensional drawing (Dimensions in mm (inch))

CLV48x/49x oscillating mirror



Reading field diagram



Resolution

- a: 0.20 mm (7.9 mil)
- b: 0.25 mm (9.8 mil)
- c: 0.30 mm (11.8 mil)

Recommended accessories

Other models and accessories → www.sick.com/CLV49x

	Brief description	Type	Part no.
Mounting brackets and plates			
	Simple mounting bracket	Mounting bracket	2013824
Modules			
	Modular connection module for one sensor	CDM490-0001	1025363
Plug connectors and cables			
	Head A: male connector, female connector, D-Sub-HD, D-Sub-HD, 15-pin Head B: male connector, D-Sub-HD, 15-pin Cable: Power, serial, CAN, digital I/Os, unshielded, 3 m	Connection cable	2030023
	Head A: male connector, female connector, D-Sub-HD, 15-pin Head B: male connector, D-Sub-HD, 15-pin Female connector Cable: Power, serial, CAN, digital I/Os, shielded, 3 m	Cover for male connector	2020307

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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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