



# 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](http://www.sick.com/CLV49x)



### Detailed technical data

#### Features

<b>Version</b>	High Density
<b>Connection type</b>	Standard
<b>Reading field</b>	Oscillating mirror
<b>Scanner design</b>	Line scanner
<b>Focus</b>	Auto focus (alternative: dynamic focus control)
<b>No. of distance configurations</b>	≤ 8
<b>Focus adjustment time</b>	≤ 20 ms
<b>Focus trigger source</b>	Switching inputs "IN 0 ... IN 4" / data interface / timer
<b>Light source</b>	Visible red light (650 nm)
<b>MTBF</b>	80,000 h
<b>Laser class</b>	2 (DIN EN 60825-1)
<b>Aperture angle</b>	≤ 50°
<b>Scanning frequency</b>	600 Hz ... 1,200 Hz
<b>Code resolution</b>	0.17 mm ... 0.4 mm
<b>Reading distance</b>	400 mm ... 1,600 mm <sup>1)</sup>
<b>Oscillating mirror functions</b>	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)

<sup>1)</sup> For details see reading field diagram.

#### Performance

<b>Bar code types</b>	All current code types, Code 39, Code 128, Code 93, Codabar, GS1-128 / EAN 128, UPC / GTIN / EAN, Interleaved 2 of 5
<b>Print ratio</b>	2:1 ... 3:1
<b>No. of codes per scan</b>	1 ... 12 (Standard decoder) 1 ... 6 (SMART decoder)
<b>No. of codes per reading interval</b>	1 ... 50 (auto-discriminating)

<b>No. of characters per reading interval</b>	600
<b>No. of multiple readings</b>	1 ... 99

## Interfaces

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

## Mechanics/electronics

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

## Ambient data

<b>Electromagnetic compatibility (EMC)</b>	EN 61000-6-2 (2001-10) EN 61000-6-3 (2001-10) EN 61000-6-3 / A11 (2004-07)
<b>Vibration resistance</b>	EN 60068-2-6 (1995)
<b>Shock resistance</b>	EN 60068-2-27 (1993)
<b>Ambient operating temperature</b>	0 °C ... +40 °C
<b>Storage temperature</b>	-20 °C ... +70 °C
<b>Permissible relative humidity</b>	± 90 %, Non-condensing
<b>Ambient light immunity</b>	2,000 lx, on bar code

## General notes

<b>Life cycle phase</b>	Discontinued
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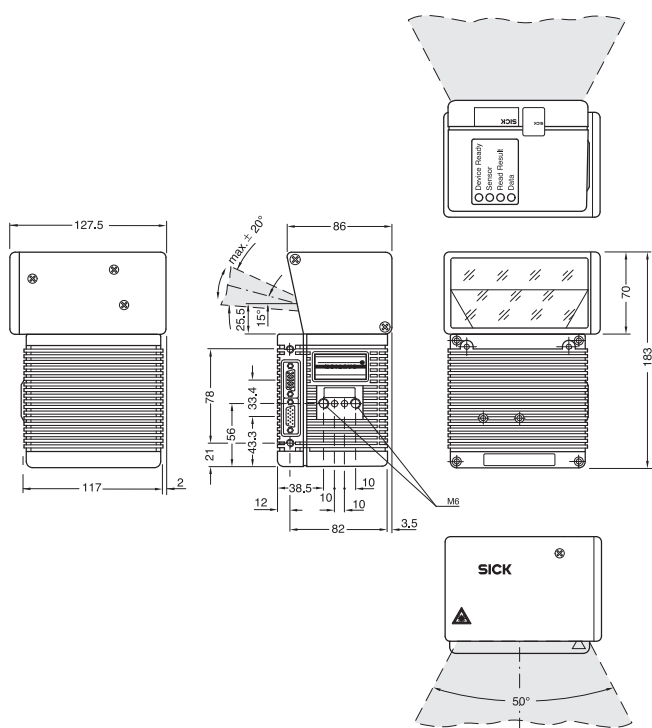
## Classifications

<b>ECI@ss 5.0</b>	27280102
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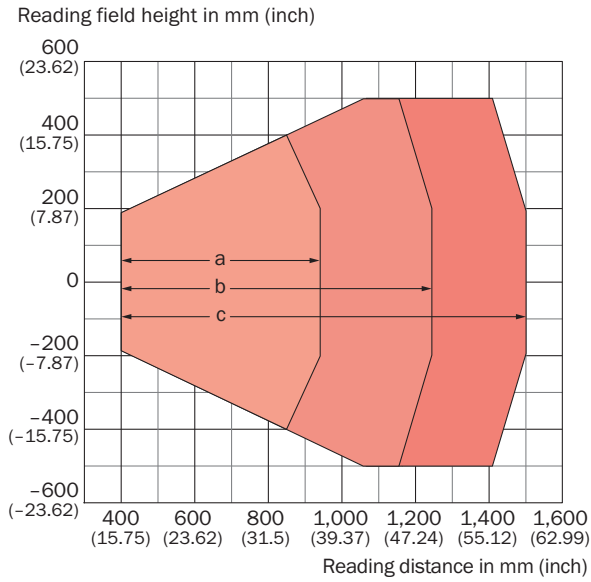
<b>ECl@ss 5.1.4</b>	27280102
<b>ECl@ss 6.0</b>	27280102
<b>ECl@ss 6.2</b>	27280102
<b>ECl@ss 7.0</b>	27280102
<b>ECl@ss 8.0</b>	27280102
<b>ECl@ss 8.1</b>	27280102
<b>ECl@ss 9.0</b>	27280102
<b>ETIM 5.0</b>	EC002550
<b>ETIM 6.0</b>	EC002550
<b>UNSPSC 16.0901</b>	43211701

### 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](http://www.sick.com/CLV49x)

	Brief description	Type	Part no.
<b>Mounting brackets and plates</b>			
	Simple mounting bracket	Mounting bracket	2013824
<b>Modules</b>			
	Modular connection module for one sensor	CDM490-0001	1025363
<b>Plug connectors and cables</b>			
	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

## 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](http://www.sick.com)