



Bar code scanners CLV49x / CLV490-2/3 / High Density

CLV490-3010



Model Name > [CLV490-3010](#)
Part No. > [1019313](#)



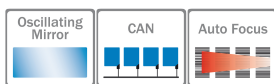
At a glance

- Real-time auto focus function
- Different versions ensure coverage for a variety of module widths
- Label tilt from -45° to +45°
- Smallest housing with auto focus and reading range up to 2.2 m
- External parameter cloning plug
- An oscillating mirror scanner is also available to cover larger reading areas
- Optional internal heater
- High scanning frequency of up to 1,200 Hz

Your benefits

- No supplementary components necessary for changing focus position, reducing costs
- Real-time auto focus provides the best coverage of applications with a large depth of field - even for small code heights
- External parameter cloning plug ensures very short MTTR
- SMART-enhanced read rates enable better performance with damaged or poorly printed codes

The product is currently being phased out and can be ordered until September 30, 2014. A replacement product can be found under "Replacement Products"



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:	Data interface, Switching inputs "IN 0 ... IN 4", Timer
Light source:	Visible red light (650 nm)
MTBF:	80,000 h
Laser class:	2 (DIN EN 60825-1)
Field of view:	≤ 50 °

Code resolution:	0.17 mm ... 0.4 mm
Reading distance (at code resolution):	400 mm ... 1,600 mm (0.3 mm)
Oscillating mirror functions:	Fixed (adjustable position), One shot, Oscillating (variable or fixed amplitude)
Oscillation frequency:	0.5 Hz ... 4 Hz
Angle of deflection:	-20 ° ... 20 ° (can be adjusted via software)
Scanning frequency:	600 Hz ... 1,200 Hz

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

Mechanics/electronics

Electrical connection:	1 x 15-pin D-Sub HD device plug 1 x 15-pin D-Sub HD device socket
Operating voltage:	18 V DC ... 30 V DC
Power consumption:	18 W
Housing:	Die-cast aluminum, 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:	183 mm x 127.5 mm x 97.5 mm

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 safety:	2,000 lx, on bar code

Life cycle phase:	Available until September 30th, 2014
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Technical drawing of the Sick XIM5000 sensor, showing front, side, and top views with dimensions in millimeters (mm).

Front View (Left):

- Width: 127.5
- Height: 117

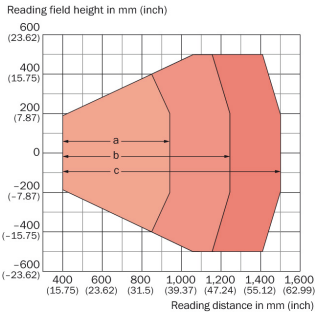
Side View (Middle):

- Width: 86
- Height: 183
- Mounting hole diameter: $\varnothing 4$
- Mounting hole spacing: 12
- Mounting hole offset: 38.5
- Mounting hole offset: 10
- Mounting hole offset: 10
- Mounting hole offset: 3.5
- Mounting hole offset: 12
- Mounting hole offset: 43.3
- Mounting hole offset: 56
- Mounting hole offset: 78
- Mounting hole offset: 21
- Mounting hole offset: 25.5
- Mounting hole offset: 15
- Mounting hole offset: 33.4
- Mounting hole offset: 17.5
- Mounting hole offset: 20°

Top View (Right):

- Width: 183
- Height: 70
- Mounting hole diameter: $\varnothing 4$
- Mounting hole spacing: 12
- Mounting hole offset: 38.5
- Mounting hole offset: 10
- Mounting hole offset: 10
- Mounting hole offset: 3.5
- Mounting hole offset: 12
- Mounting hole offset: 43.3
- Mounting hole offset: 56
- Mounting hole offset: 78
- Mounting hole offset: 21
- Mounting hole offset: 25.5
- Mounting hole offset: 15
- Mounting hole offset: 33.4
- Mounting hole offset: 17.5
- Mounting hole offset: 20°

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)

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