



Bar code scanners CLV45x / CLV450 / Standard Density

CLV450-6010



Model Name > [CLV450-6010](#)
Part No. > [1019218](#)



At a glance

- Dynamic focus control in real time
- Immune to ambient light
- Large reading distance of up to 1.6 m
- Auto setup ensures automatic optimizing of reading performance
- CAN bus compatible
- High read rates, even with damaged, rotated, or dirty bar codes
- Adjustable scanning frequency up to 1,000 scans per second

Your benefits

- Reliable bar code identification across large reading distances
- Dynamic focus control allows the scanner to accommodate a large depth of field by dynamically adjusting the focus to the object distance
- Small size and simple setup enables fast installation, even in compact machines
- Extremely easy to configure, shortening commissioning time
- Short commissioning time
- Reliable operation
- Parameter cloning plug ensures very short MTTR

The product is currently being phased out and can be ordered until September 30, 2013. A replacement product can be found under "Replacement Products"



Features

Version:	Standard Density
Connection type:	Standard
Reading field:	Oscillating mirror
Scanner design:	Line scanner
Focus:	Dynamic focus control
No. of distance configurations:	8
Focus adjustment time:	≤ 50 ms
Focus trigger source:	Switching input "Sensor 2", Serial interface, Timer
Light source:	Visible red light (650 nm)
MTBF:	20,000 h
Laser class:	2 (DIN EN 60825-1)

Field of view:	≤ 50 °
Code resolution:	0.25 mm ... 1 mm
Reading distance (at code resolution):	125 mm ... 1,510 mm (1 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:	400 Hz ... 1,000 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 ... 20 (Standard decoder), 1 ... 6 (SMART decoder)
No. of codes per reading interval:	1 ... 50 (auto-discriminating)
No. of characters per reading interval:	500
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):	10 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:	2 ("Sensor 1", "Sensor 2")
Switching outputs:	2 ("Result 1", "Result 2")
Reading pulse:	Non-powered, "Sensor 1" switching input, Serial interface
Optical indicators:	4 LEDs (function indicator)
Acoustic indicators:	Beeper/buzzer (can be switched off, can be allocated as a result status indication function)

Mechanics/electronics

Electrical connection:	1 15-pin D-Sub HD plug (0.9 m)
Operating voltage:	10 V DC ... 30 V DC ¹⁾
Power consumption:	7.2 W
Housing:	Die-cast zinc, does not contain paint wetting impairment substances
Housing color:	Light blue (RAL 5012)
Enclosure rating:	IP 65 (DIN 40 050)
Protection class:	III (VDE 0106)
Weight:	700 g, with connecting cable
Dimensions:	99.8 mm x 90 mm x 37.8 mm

1) UL certified for use with a Class 2 mains supply unit (checked to UL 1310)

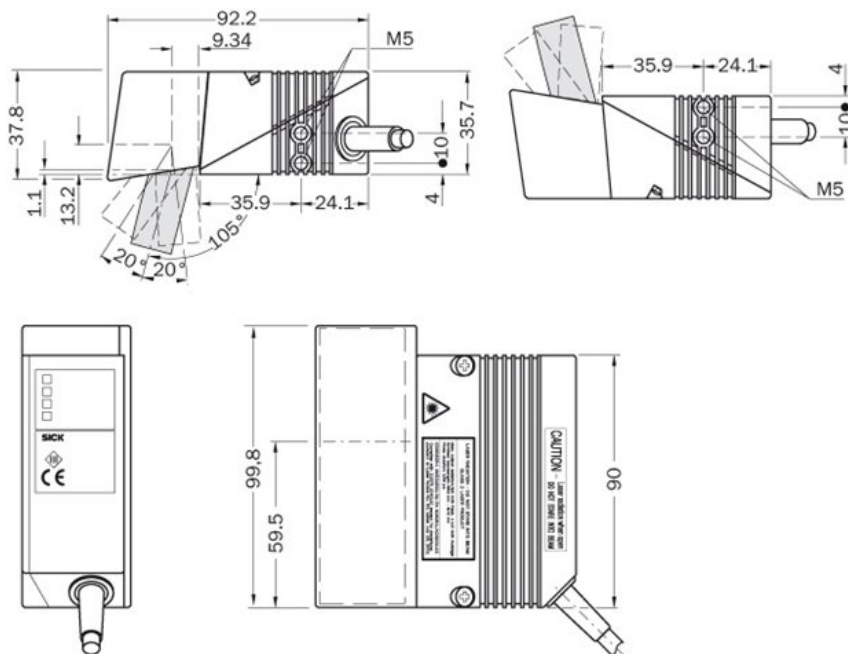
Ambient data

Electromagnetic compatibility (EMC):	(EN 61000-6-4) (EN 61000-6-1) (EN 61000-6-2)
Vibration resistance:	(IEC 68-2-6 Test FC)
Shock resistance:	(IEC 68-2-27 Test EA)
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

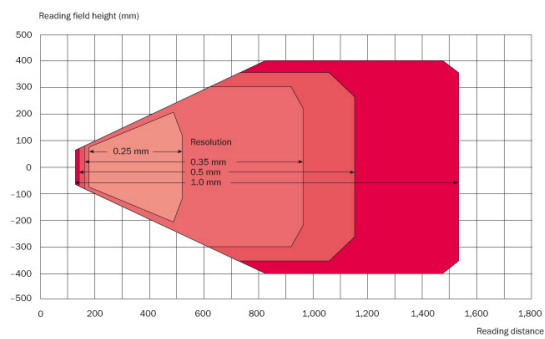
General notes

Life cycle phase:	Available until September 30th, 2013
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Dimensional drawing



Reading field diagram



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