



Bar code scanners
CLV43x / CLV431 / Mid Range

CLV431-1010



Model Name > [CLV431-1010](#)
Part No. > [1016679](#)



At a glance

- Reliable code recognition in real time using SMART technology
- Immune to ambient light
- Auto setup ensures automatic optimizing of reading performance
- Reflector polling provides automatic triggering
- Profile programming included
- Adjustable scanning frequency up to 800 scans per second

Your benefits

- SMART-enhanced read rates enable better performance with damaged or poorly printed codes
- Reliably reads bar codes with up to 30 degrees of tilt, increasing throughput
- No additional trigger light switch necessary due to the reflector polling function, reducing costs
- Extremely easy to configure, shortening commissioning time
- Reliable operation
- Small size and simple setup enables fast installation, even in compact machines
- Parameter cloning plug ensures very short MTTR

The product has been discontinued. Please contact your SICK sales representative for more information about a replacement product.



Features

Version:	Mid Range
Connection type:	Standard
Reading field:	Front
Scanner design:	Raster scanner
Focus:	Fixed focus
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 ... 0.5 mm
Reading distance:	90 mm ... 430 mm ¹⁾
Raster height, number of lines, at distance:	15 mm, 8, 200 mm
Scanning frequency:	300 Hz ... 800 Hz

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:	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)
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, Reflector polling, "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 indication function)
EtherCAT:	0

Mechanics/electronics

Electrical connection:	1 x 15-pin D-Sub HD male connector (0.9 m)
Operating voltage:	10 V DC ... 30 V DC ¹⁾
Power consumption:	4 W
Housing:	Die-cast zinc, does not contain paint wetting impairment substances
Housing color:	Light blue (RAL 5012)
Enclosure rating:	IP 65 (EN 60529 (1991-10))
Protection class:	III (EN 61140 (2002-03))
Weight:	420 g, with connecting cable
Dimensions:	90 mm x 60 mm x 35.7 mm

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

Ambient data

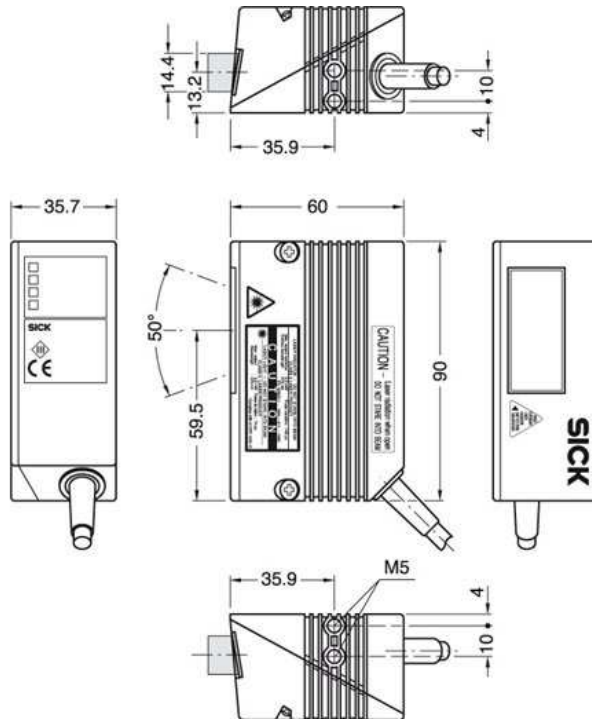
Electromagnetic compatibility (EMC):	EN 61000-6-2 (2001-10)/EN 61000-6-4 (2001-10)
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Vibration resistance:	IEC 60068-2-27 (1993)
Shock resistance:	IEC 600682-6 (1995)
Ambient operating temperature:	0 °C ... +40 °C
Storage temperature:	-20 °C ... +70 °C
Permissible relative humidity:	± 90 %, non-condensing
Bar code print contrast (PCS):	≥ 60 %
Ambient light immunity:	2,000 lx, on bar code

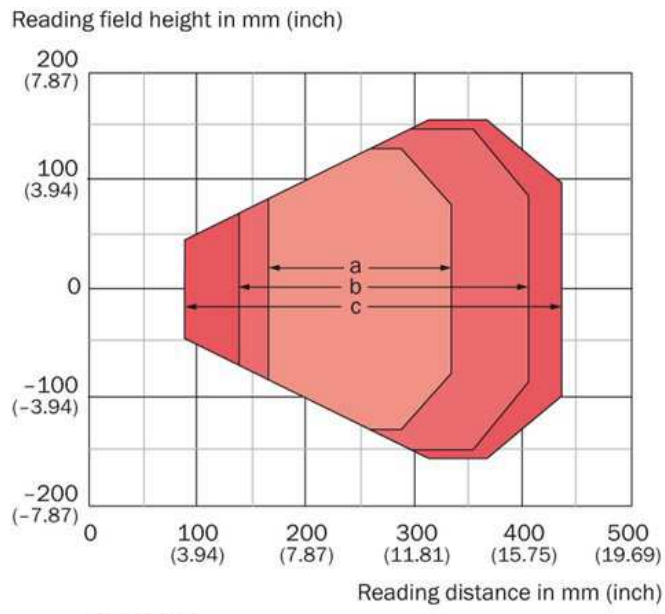
General notes

Life cycle phase:	Phased out
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Dimensional drawing



Reading field diagram



Resolution

- a: 0.25 mm (9.8 mil)
- b: 0.35 mm (13.8 mil)
- c: 0.50 mm (19.7 mil)

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