



# CLV431-1010

CLV43x

**BAR CODE SCANNERS**

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
CLV431-1010	1016679

Other models and accessories → [www.sick.de/CLV43x](http://www.sick.de/CLV43x)



### Detailed technical data

#### Features

<b>Version</b>	Mid Range
<b>Connection type</b>	Standard
<b>Reading field</b>	Front
<b>Scanner design</b>	Raster scanner
<b>Focus</b>	Fixed focus
<b>Light source</b>	Visible red light (650 nm)
<b>MTBF</b>	20,000 h
<b>Laser class</b>	2 (DIN EN 60825-1)
<b>Aperture angle</b>	≤ 50°
<b>Scanning frequency</b>	300 Hz ... 800 Hz
<b>Code resolution</b>	0.25 mm ... 0.5 mm
<b>Reading distance</b>	90 mm ... 430 mm <sup>1)</sup>
<b>Raster height, number of lines, at distance</b>	15 mm, 8, 200 mm

<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 ... 20 (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>	500
<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	10 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>		2 ("Sensor 1", "Sensor 2")
<b>Switching outputs</b>		2 ("Result 1", "Result 2")
<b>Reading pulse</b>		Reflector polling, Switching input "Sensor 1", non-powered, serial interface
<b>Optical indicators</b>		4 LEDs (function indicator)
<b>Acoustic indicators</b>		Beeper/buzzer (can be switched off, can be allocated as a result indication function)

### Mechanics/electronics

<b>Electrical connection</b>	1 x 15-pin D-Sub HD male connector (0.9 m)
<b>Operating voltage</b>	10 V DC ... 30 V DC <sup>1)</sup>
<b>Power consumption</b>	4 W
<b>Housing</b>	Die-cast zinc, does not contain paint wetting impairment substances
<b>Housing color</b>	Light blue (RAL 5012)
<b>Enclosure rating</b>	IP 65 (EN 60529 (1991-10), A1 (2002-02))
<b>Protection class</b>	III (EN 61140 (2002-03))
<b>Weight</b>	420 g, with connecting cable
<b>Dimensions (L x W x H)</b>	90 mm x 60 mm x 35.7 mm

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

### Ambient data

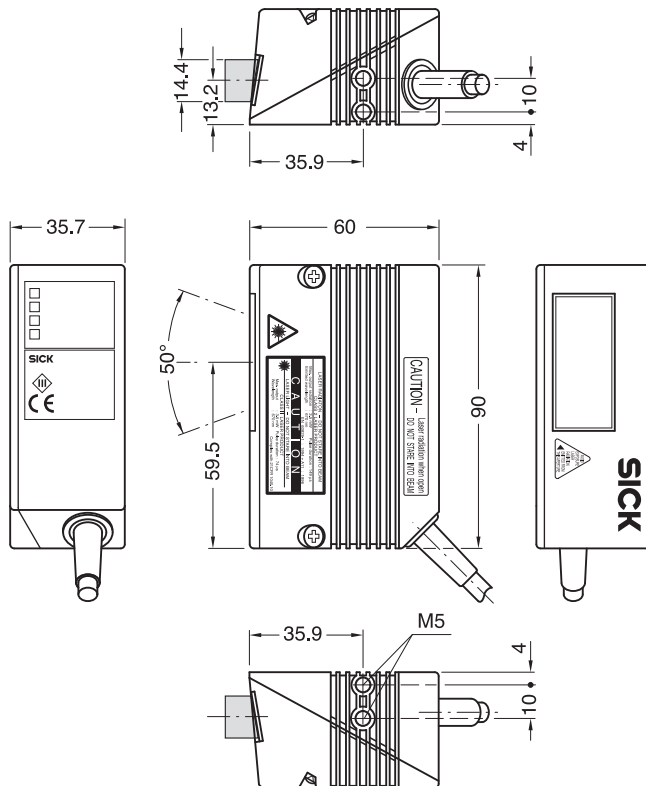
<b>Electromagnetic compatibility (EMC)</b>	EN 61000-6-2 (2001-10) / EN 61000-6-4 (2001-10)
<b>Vibration resistance</b>	IEC 60068-2-27 (1993)
<b>Shock resistance</b>	IEC 600682-6 (1995)
<b>Ambient operating temperature</b>	0 °C ... +40 °C
<b>Storage temperature</b>	-20 °C ... +70 °C
<b>Permissible relative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

### General notes

<b>Life cycle phase</b>	Discontinued
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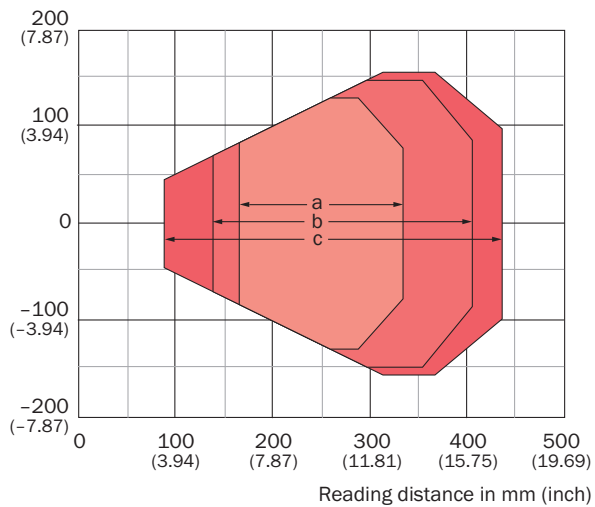
### Dimensional drawing (Dimensions in mm (inch))

CLV43x/44x/45x front



### Reading field diagram

Reading field height in mm (inch)




#### Resolution

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

## Recommended accessories

Other models and accessories → [www.sick.de/CLV43x](http://www.sick.de/CLV43x)

	Brief description	Type	Part no.
Mounting brackets and mounting plates			
	Mounting bracket, U-shaped, mounting hardware included	Mounting bracket	2022564
Modules			
	Modular connection module for one sensor	CDM420-0001	1025362

## 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)