

**Always well-focused.
The CLV 490 Bar-Code Scanner.
With autofocus.**

Advanced Line

SICK

Real-time AUTOFOCUS.

The CLV 490 from SICK

The CLV 490 ensures maximum, tilt-independent read rates with minimum code height. The real-time AUTOFOCUS function provides optimum read rates at maximum depths of field (DOF), since the device is always focused in accordance with the distance of the bar-code.



Line scanner

Maximum power in a compact design:

- Real-time AUTOFOCUS function
- High density, standard density, low density
- Label tilt from $-45^\circ \dots +45^\circ$
- Reliable code recognition using SMART technology
- Smallest unit in its class
- Additional interface for external parameter memory
- Flash PROM for firmware
- Available as line scanner or line scanner with oscillating mirror
- Optional heater

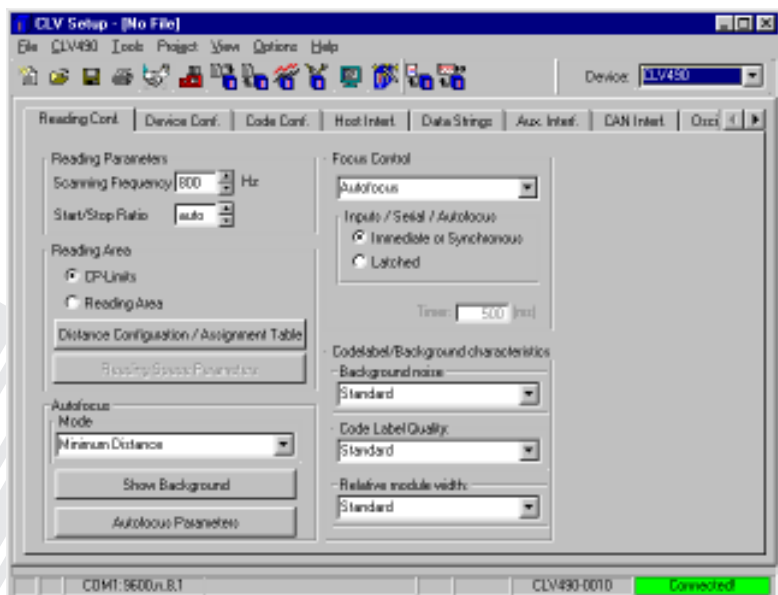
THE CLV 490 ADVANTAGES AT A GLANCE

- Enhanced reading performance compared with existing SICK bar-code scanners of the same size
- No additional components required to detect the object distance
- Extremely high depth of field even for smallest module widths thanks to the real-time AUTOFOCUS function
- External memory (connector) means that parameters do not have to be redefined each time the scanner is changed

With SMART Code Recognition Technology

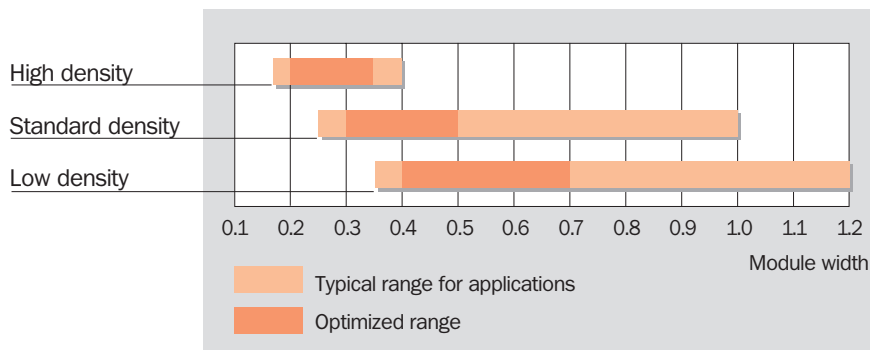


Line scanner with oscillating mirror



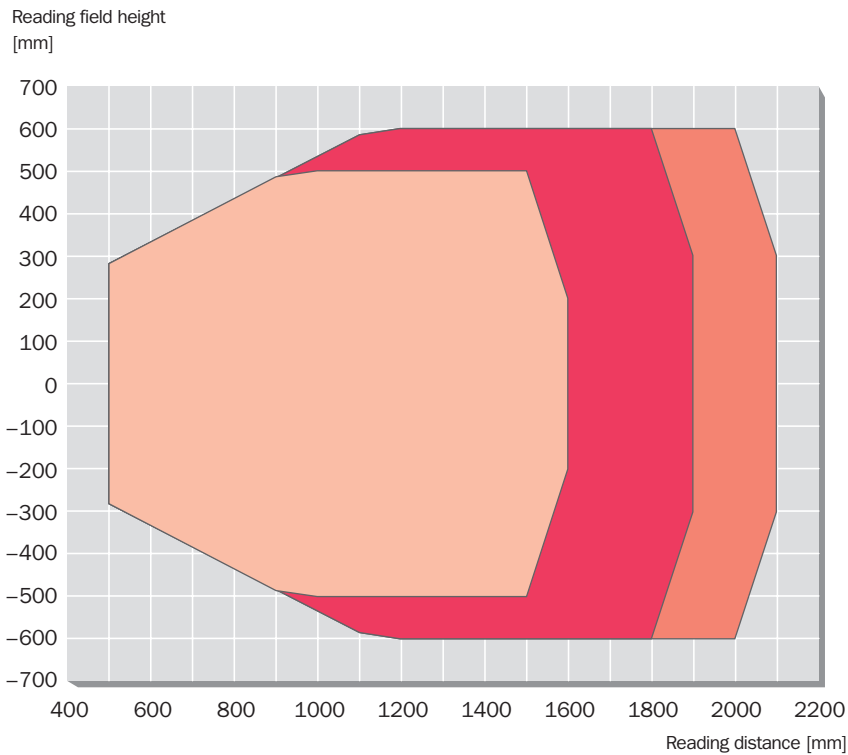
Easy to operate and configure with the CLV Setup program

- OMNI applications
- Applications with large object distances/depth of field (DOF)
- Grid box/pallet applications
- Object identification in boxes
- Tasks in parcel and courier services



Application ranges for the variants as a function of module width

Line scanner. (standard density)



Reading conditions:

Test code: code 128

Print contrast: > 90 %

Ambient light: < 2000 lx

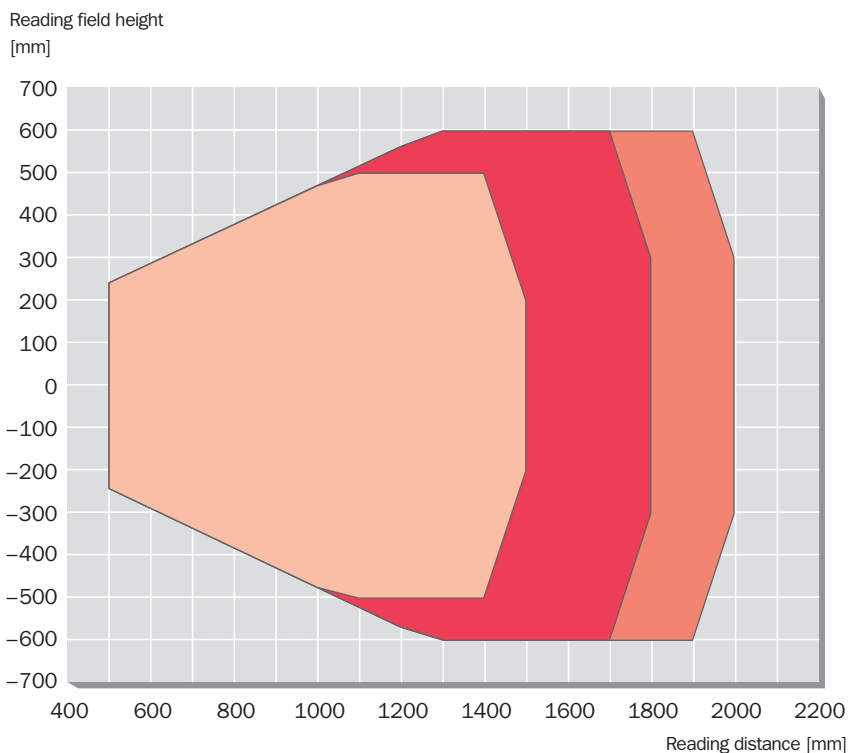
Tilt: - 45° ... + 45°

Pitch: - 15° ... + 15°

Skew: - 15° ... + 15°

Reading field diagram CLV 490 line scanner: standard density

Line scanner with oscillating mirror. (standard density)



Reading conditions:

Test code: code 128

Print contrast: > 90 %

Ambient light: < 2000 lx

Tilt: - 45° ... + 45°

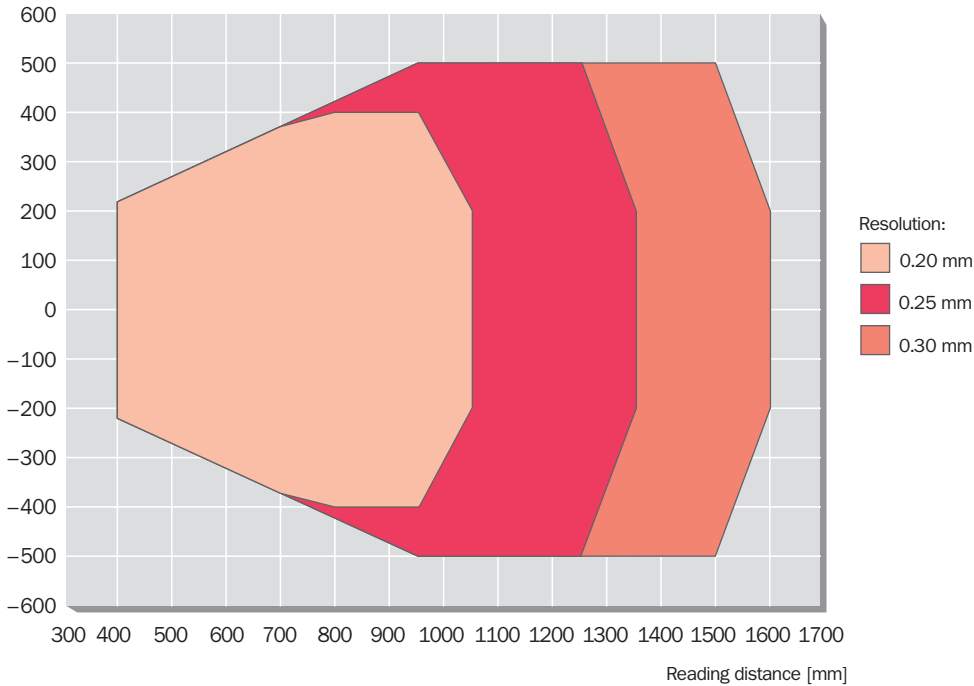
Pitch: - 15° ... + 15°

Skew: - 15° ... + 15°

Reading field diagram CLV 490 line scanner with oscillating mirror: standard density

Line scanner. (high density)

Reading field height
[mm]



Reading conditions:

Test code: code 128

Print contrast: > 90 %

Ambient light: < 2000 lx

Tilt: - 45° ... + 45°

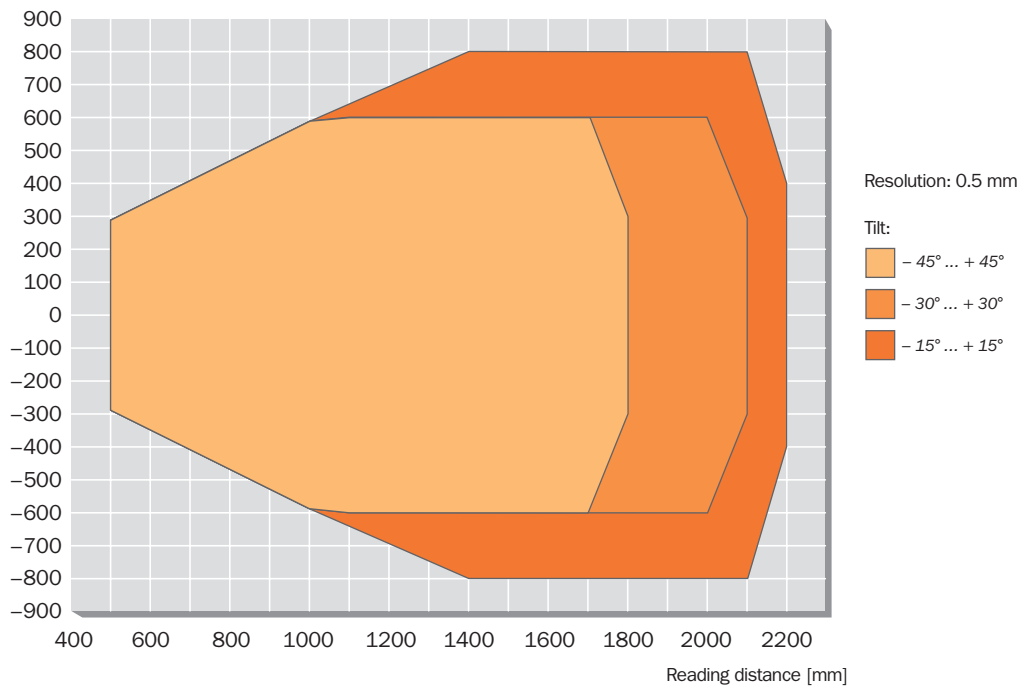
Pitch: - 15° ... + 15°

Skew: - 15° ... + 15°

Reading field diagram CLV 490 line scanner: high density

Line scanner. (low density)

Reading field height
[mm]



Reading conditions:

Test code: code 128

Print contrast: > 90 %

Ambient light: < 2000 lx

Pitch: - 15° ... + 15°

Skew: - 15° ... + 15°

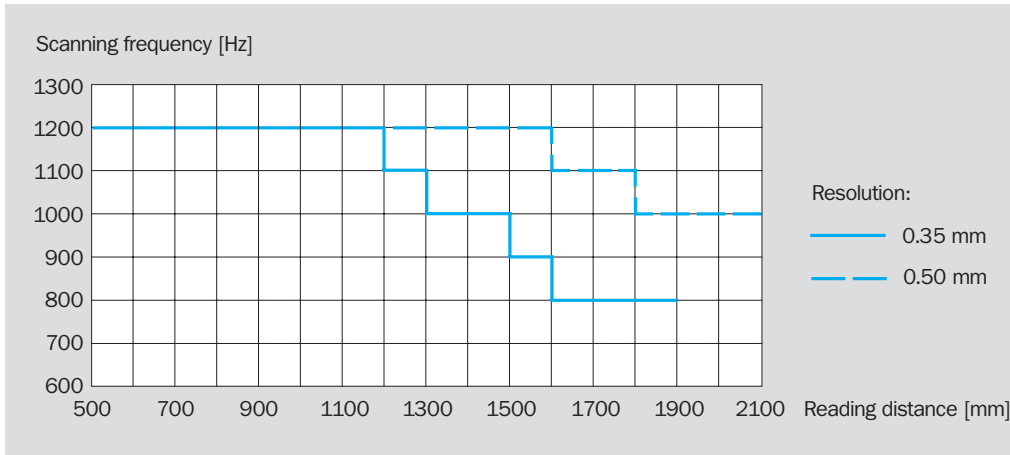
Reading field diagram CLV 490 line scanner: low density

Line scanner.

Line scanner with oscillating mirror.

(standard density)

Reading distance as a function of the scanning frequency for line scanner



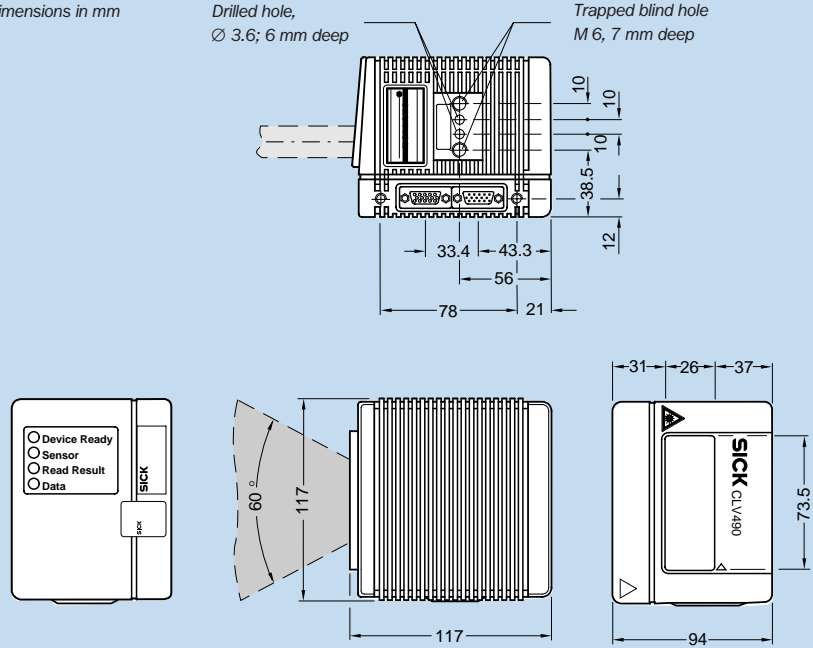
CLV 490 Bar-Code Scanner

Design	Line scanner, options: with oscillating mirror, heating
Resolution	Standard density, high density, low density
Light source	Laser diode, red light ($\lambda = 650 \text{ nm}$)
Laser class	2 (to EN 60825-1)
Ambient light compability	2000 lx (on bar code)
Scanning/decoding frequency	600 ... 1200 Hz
Aperture angle	Max. 60° (max. 50° with oscillating mirror)
Operation and parametrization	With Windows-based CLV-Setup software or command strings
Indicators	4 LED (status indicators)
Data interface	Host: RS 232, RS 422/485; terminal: RS 232
Switching inputs/outputs	6 x IN / 4 x OUT
Operating voltage	18 ... 30 V DC (24 V DC + 20 % / - 10 % with heating)
Power consumption (line scanner)	Typical 9.5 W, max. 16 W; Typical 75 W, max. 90 W (with heating)
Electrical connections	2 x 15-pin D Sub-HD plug/socket
Housing	Die-cast aluminium
Enclosure rating	IP 65 (to DIN 40 050)
Protection class	Class 3 (to VDE 0106)
EMC test	To EN 61000-6-2, EN 61000-6-3
Weight	1.5 kg (line scanner)/2.2 kg (with oscillating mirror)
Temperature (ambient operating/storage)	0 ... + 40 °C (- 35 ... + 35 °C with heating)/- 20 ... + 70 °C

All dimensions in mm

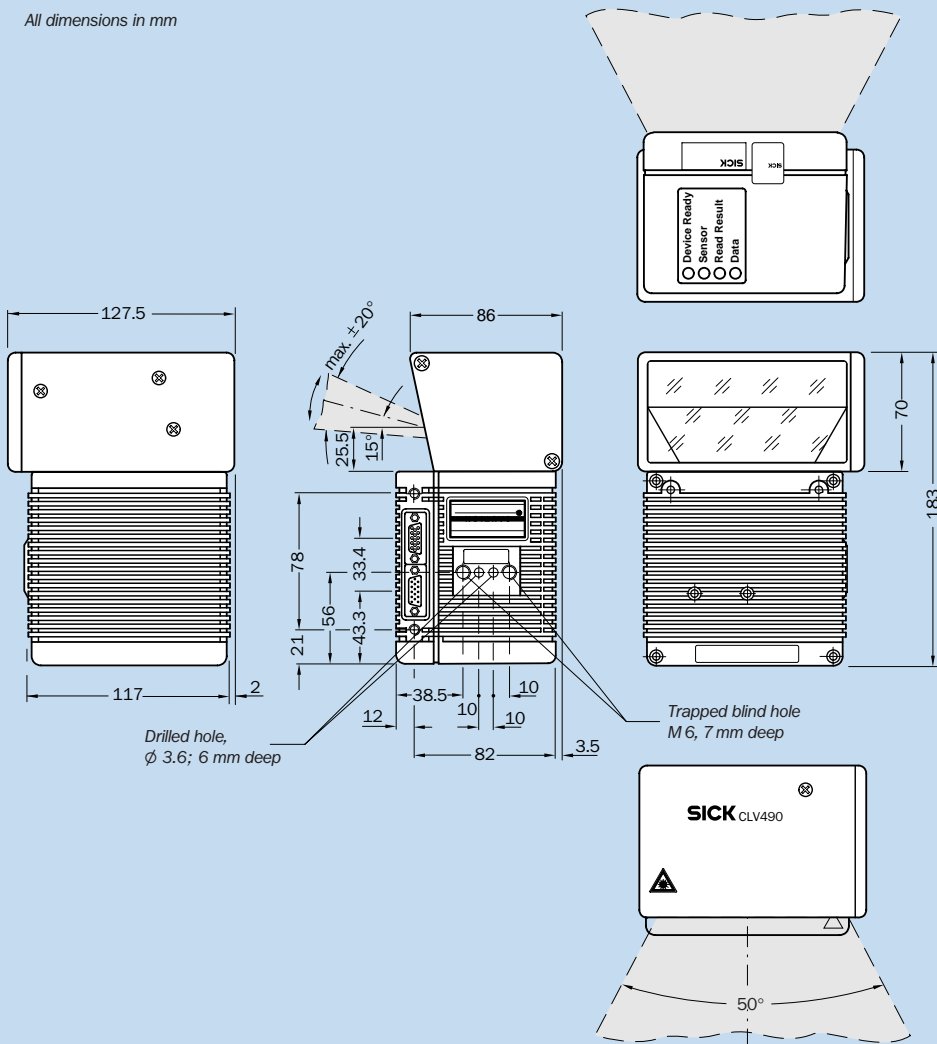
Drilled hole,
Ø 3.6; 6 mm deep

Trapped blind hole
M 6, 7 mm deep



Dimensional drawing
CLV 490 line scanner

All dimensions in mm



Dimensional drawing CLV 490
line scanner with oscillating mirror