

**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  $-45^{\circ}$  ...  $+45^{\circ}$
- 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

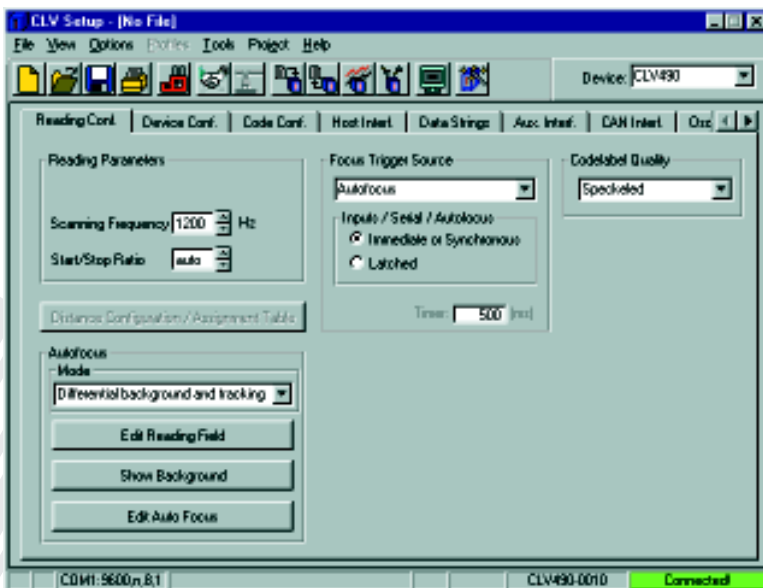
## THE CLV 490 ADVANTAGES AT A GLANCE

- 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

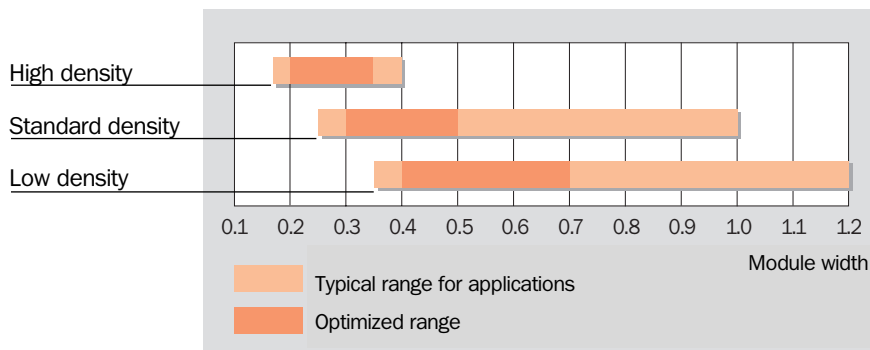


Line scanner with oscillating mirror



Easy to operate and configure with the CLV Setup program

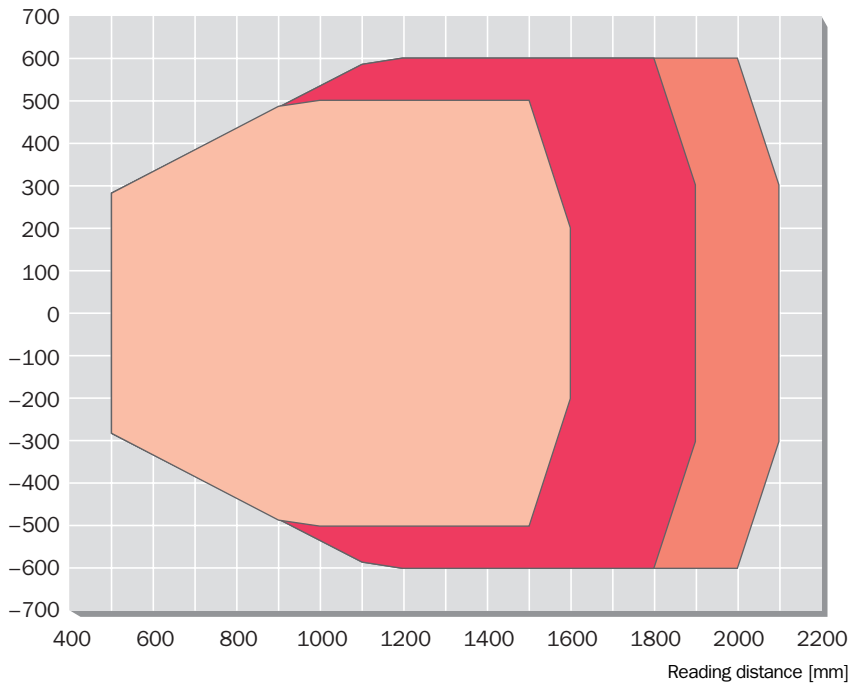
- OMNI applications
- Applications with large object distances/depth of field (DOF)
- Grid box/pallet applications
- Object identification in boxes
- Tasks in parcel and courier services



Application ranges for the variants as a function of module width

## Line scanner. (standard density)

Reading field height  
[mm]



Resolution:  
0.30 mm  
0.35 mm  
0.50 mm

Reading conditions:

Test code: code 128

Print contrast: > 90 %

Ambient light: < 2000 lx

Tilt: - 45° ... + 45°

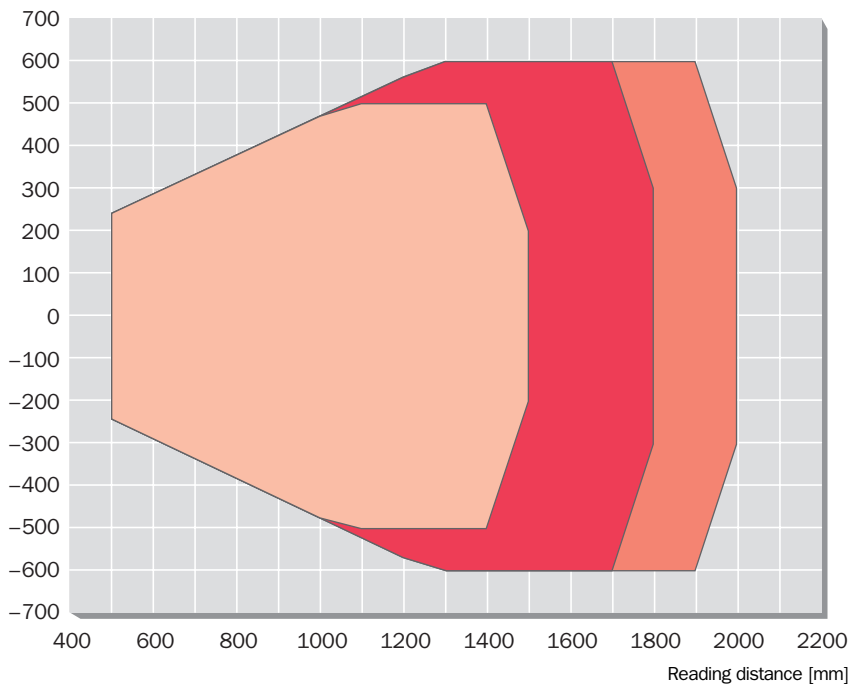
Pitch: - 15° ... + 15°

Skew: - 15° ... + 15°

Reading field diagram CLV 490 line scanner: standard density

## Line scanner with oscillating mirror. (standard density)

Reading field height  
[mm]



Resolution:  
0.30 mm  
0.35 mm  
0.50 mm

Reading conditions:

Test code: code 128

Print contrast: > 90 %

Ambient light: < 2000 lx

Tilt: - 45° ... + 45°

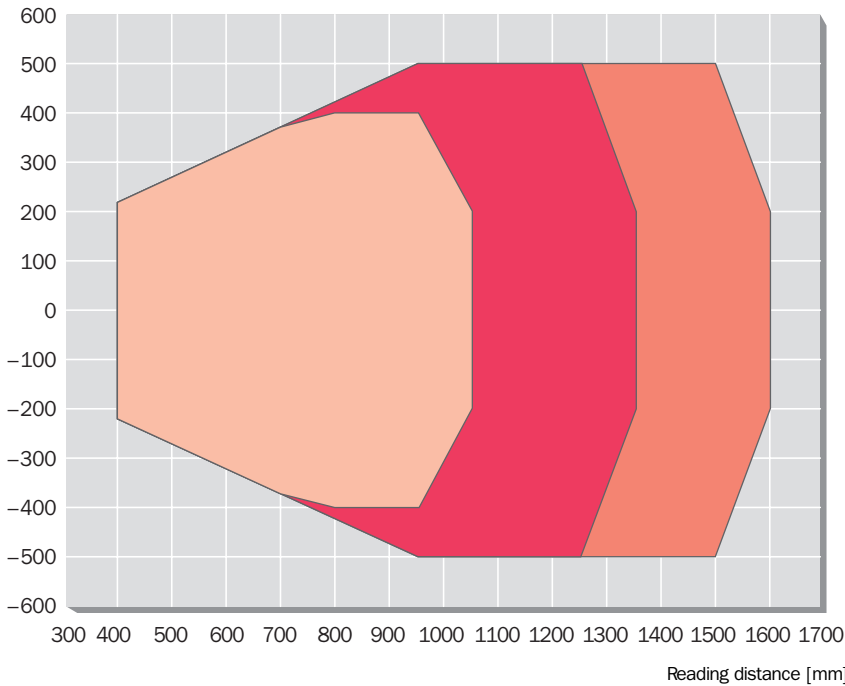
Pitch: - 15° ... + 15°

Skew: - 15° ... + 15°

Reading field diagram CLV 490 line scanner 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°

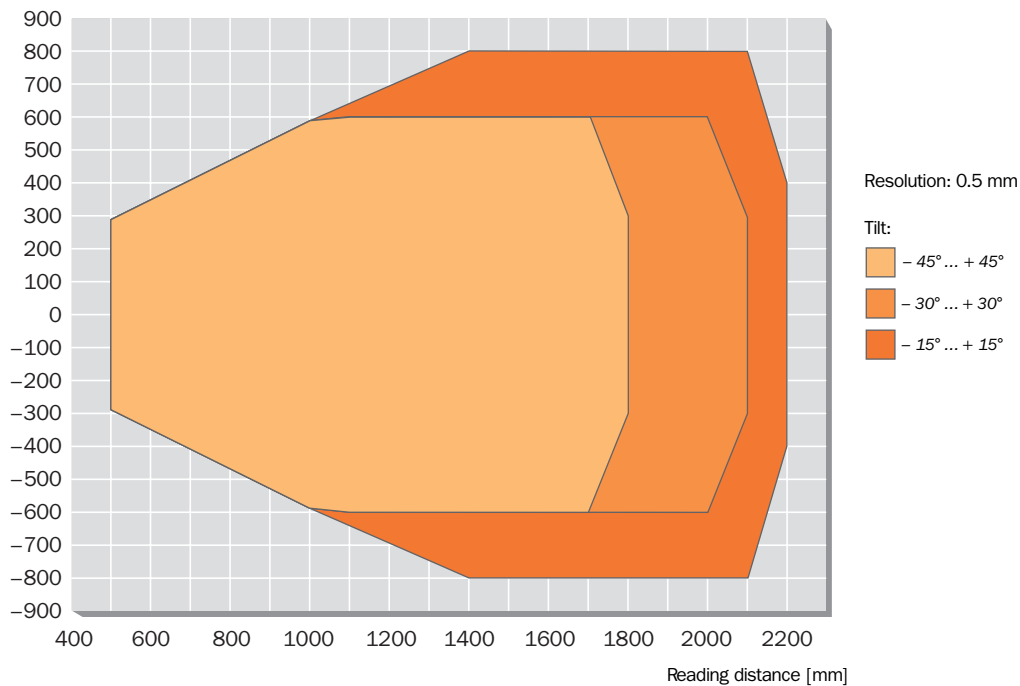
Pitch: - 15° ... + 15°

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°

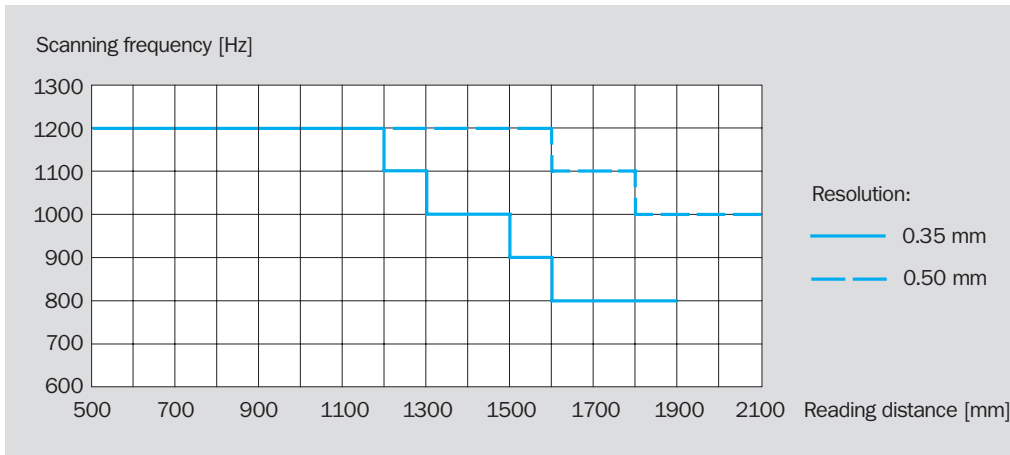
Reading field diagram CLV 490 line scanner: low density

# Line scanner.

## Line scanner with oscillating mirror.

(standard density)

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



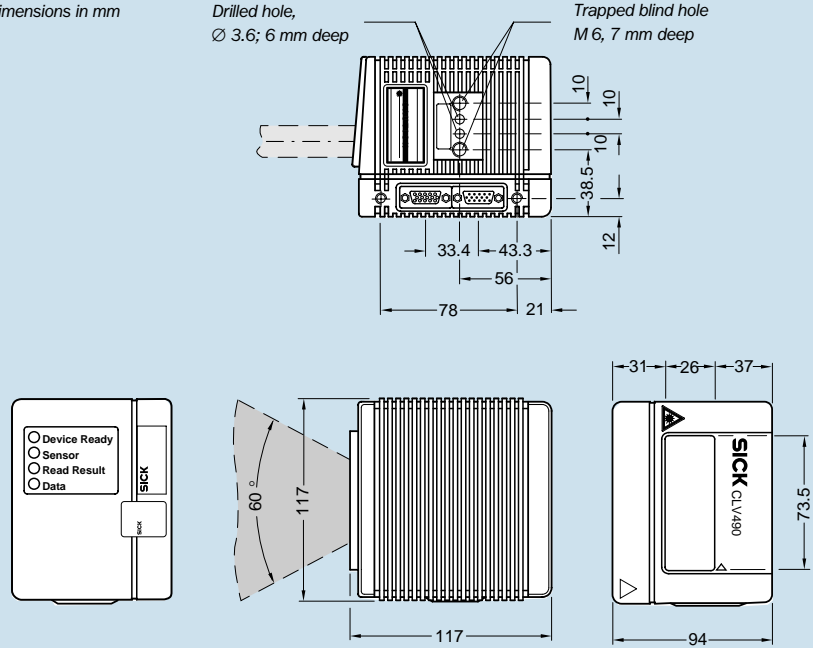
### CLV 490 Bar-Code Scanner

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 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 50081-1, EN 50082-2
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

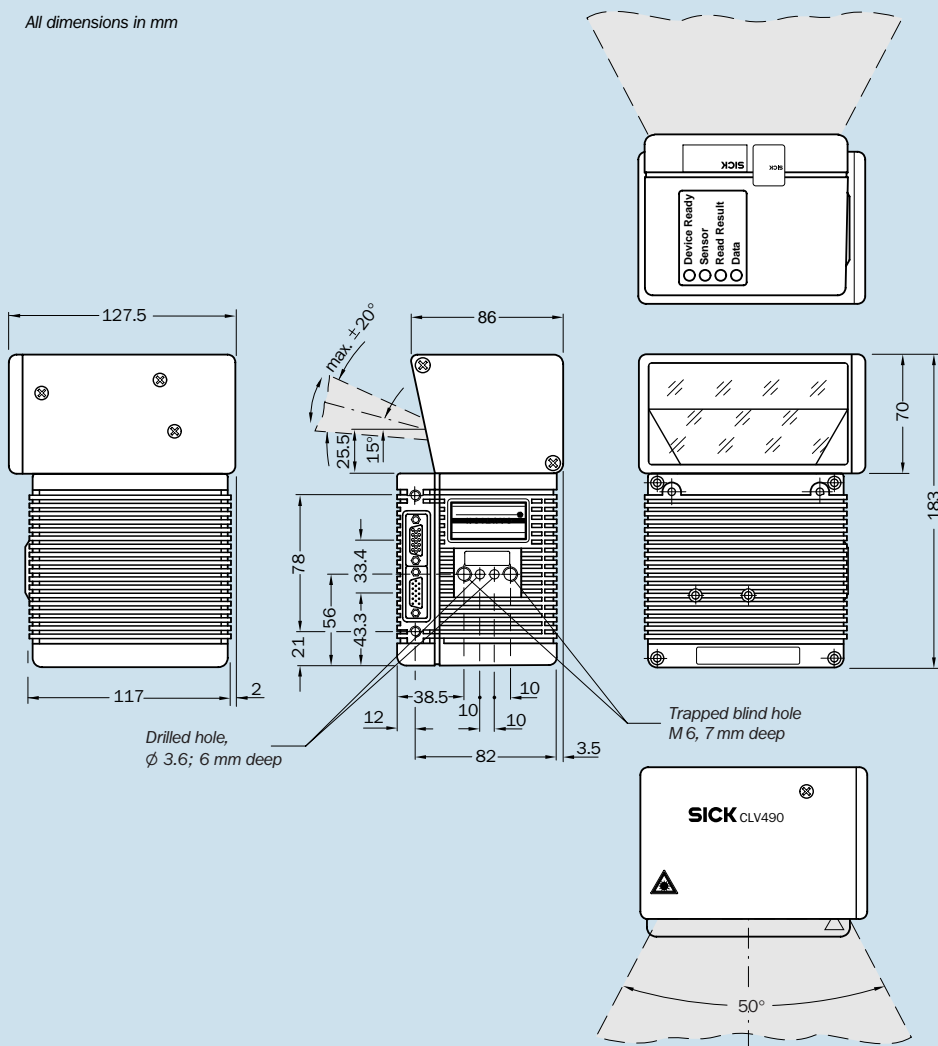
Drilled hole,  
 $\varnothing 3.6$ ; 6 mm deep

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

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