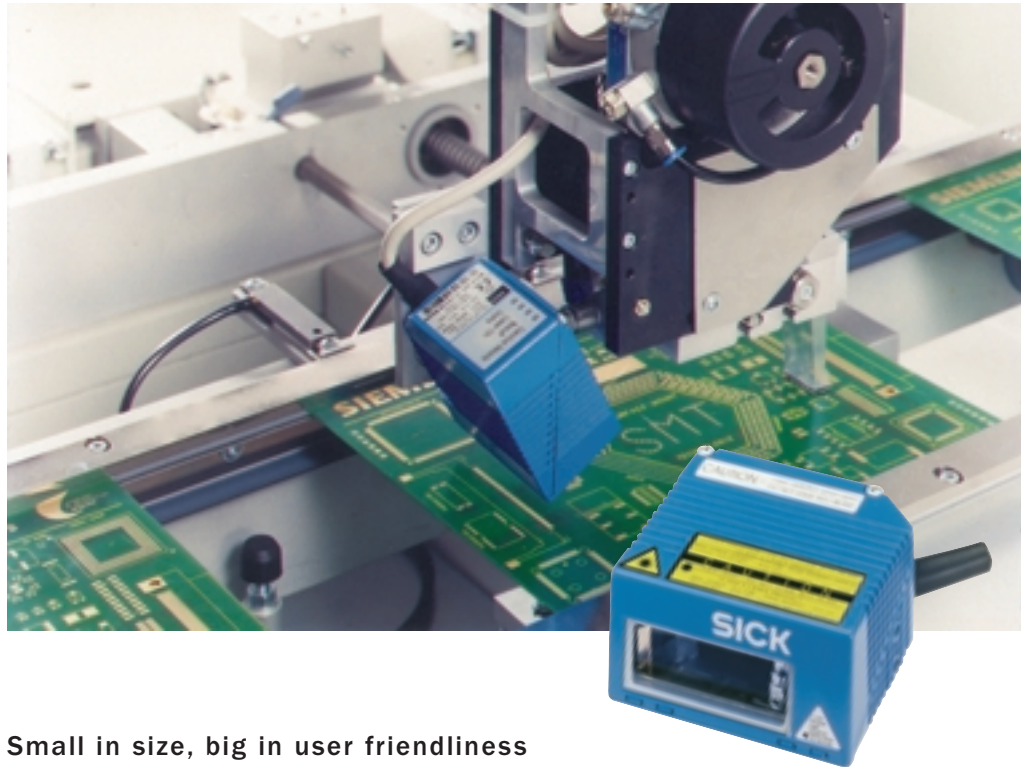


# CLV 420/421/422 Bar Code Scanner

## Standard Line



### Small in size, big in user friendliness

The CLV 420 product family represents the logical development of miniature bar code readers. High reading performances and excellent user friendliness are united in a very small housing. Bar code identification in the case of very high conveyor velocities can also be realised, due to the extraordinary fast scan frequencies.

The CAN and the diagnosis interface, together with the well-established Windows Setup Software, offer the best in user friendliness for its class. Of course, the innovative adjustment tools, such as Auto Setup and automatic trigger have also been integrated.

### Your benefit:

- Code identification even in the case of high conveyor velocities
- Easy setup procedures supported by state-of-the-art software tools
- Various possibilities for diagnosis
- Easy and simple connectivity

### CLV 420/421/422 at a glance:

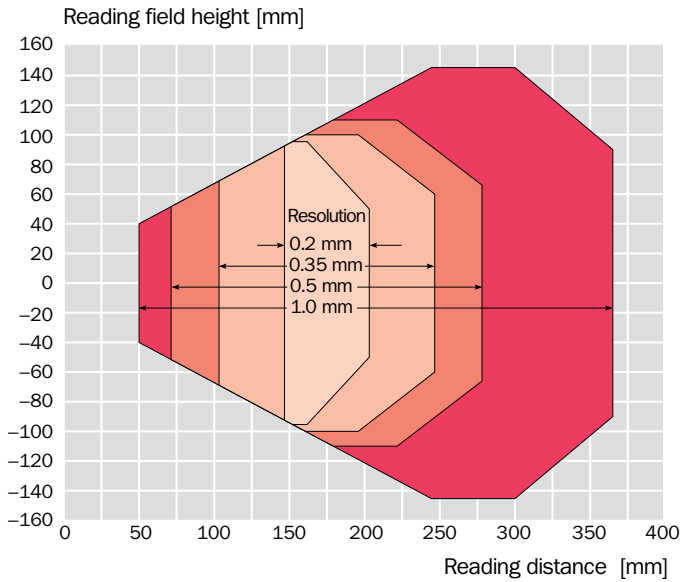
- High scan frequency of 1200 Hz
- Small housing
- Standard Range, Long Range and High Density Version available
- Angle attachment optional
- Flash memory for firmware
- CAN bus compatible

# SICK

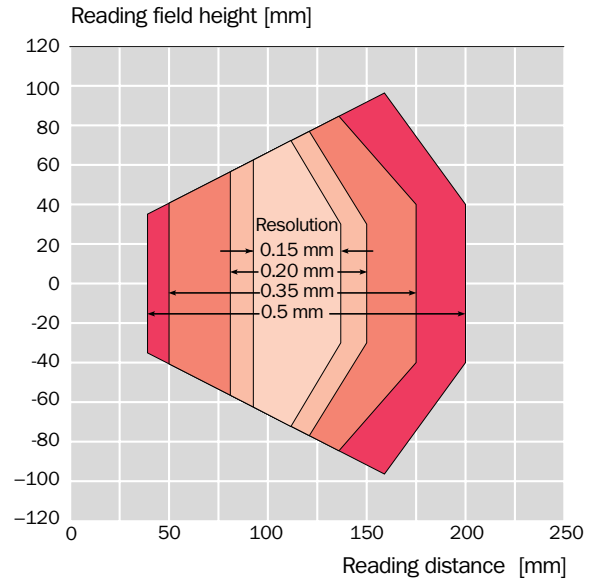
# Reading diagrams

## Line/Raster Scanner

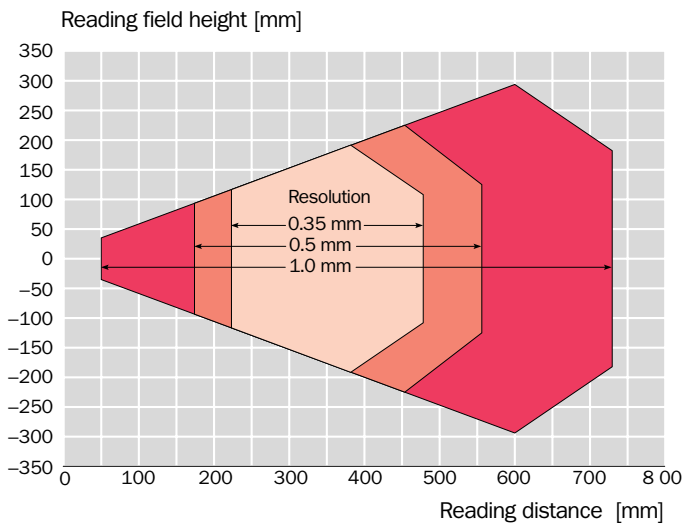
CLV 420 STANDARD RANGE



CLV 422 HIGH DENSITY

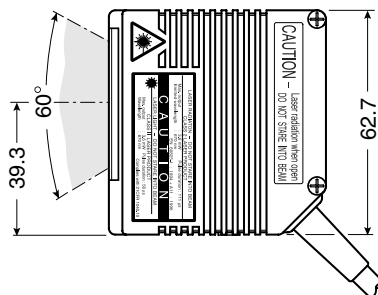
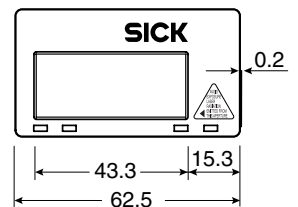
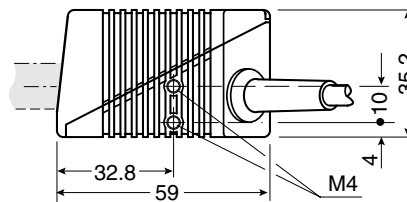
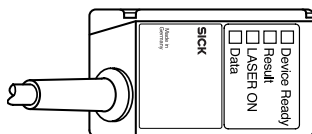


CLV 421 LONG RANGE



### FRONT READING WINDOW

- CLV 420-0010
- CLV 420-1010
- CLV 421-0010
- CLV 421-1010
- CLV 422-0010
- CLV 422-1010



All dimensions in mm

# Technical data line/raster scanner

Type	CLV 420 (Std. Range)	CLV 421 (Long Range)	CLV 422 (High Density)
Line scanner	CLV 420-0010/Order No. 1 022 031	CLV 421-0010/Order No. 1 022 547	CLV 422-0010/Order No. 1 022 548
Raster scanner	CLV 420-1010/Order No. 1 022 032	CLV 421-1010/Order No. 1 022 616	CLV 422-1010/Order No. 1 022 619
Line scanner with 105° angle att.	CLV 420-2010/Order No. 1 022 033	CLV 421-2010/Order No. 1 022 617	CLV 422-2010/Order No. 1 022 620
Raster scanner with 105° angle att.	CLV 420-3010/Order No. 1 022 034	CLV 421-3010/Order No. 1 022 618	CLV 422-3010/Order No. 1 022 621
Focus	Fixed focus		
Reading window	Line/raster scanner: front Line/raster scanner with angle attachment: side (angle of emergence 105°)		
Laser diode (wavelength)	red light ( $\lambda = 670$ nm)		
Service life of laser diode	MTBF 20,000 h		
Laser class	Class 2 (pursuant to DIN EN 60825-1)		
Useful aperture angle	max. 50°		
Scanning/decoding frequency	400 ... 1200 Hz		
Resolution	0.15 ... 1.0 mm		
Raster height	15 mm (8 lines) at a reading distance of 200 mm (front reading window)		
Bar code print contrast (PCS)	$\geq 60$ %		
Immunity to ambient light	2000 lx (on bar code)		
No. of bar codes per scan	1 ... 3		
No. of bar codes per reading interval	1 ... 10		
Bar code types	Code 39, Code 128, Code 93, Codabar, EAN, EAN 128, UPC, 2/5 Interleaved		
Bar code length	max. 50 characters (max. 100 characters across all bar codes per reading interval)		
Print ratio	2:1 ... 3:1		
No. of multiple reads	1 ... 99		
Optical indicators	4 x LEDs		
Acoustic indicator	Beeper, can be deactivated and assigned to a function for result status indication		
Reading pulse	Reflector polling/"Sensor 1" switching input/free running/serial interface		
"Host" data interface	RS 232 or RS 422/485, variable data output format		
Data transfer rate	300 ... 57 600 Bits/s		
Protocols	SICK Standard and 3964 (R)		
Physical configurations	Stand-alone		
"CAN" data interface	CANopen protocol, CAN Scanner Network		
Data transfer rate	20 KBit/s ... 1 MBit/s		
"Terminal" data interface	RS 232, 9600 baud, 8 data bits, no parity, 1 stop bit, fixed output format		
Switching inputs	2 ("Sensor 1", "Sensor 2")		
Switching outputs	2 ("Result 1", "Result 2")		
Electrical connection	15-pin D Sub HD connector, cable length 0.9 m		
Operating voltage/power consumption	10 ... 30 V DC/3.5 W		
Housing	Cast zinc die-cast, does not represent a problem in paint shops		
Enclosure rating/protection class	IP 65 (to DIN 40 050)/Class 3 (to VDE 0106/IEC 1010-1)		
EMC/vibration/shock tested	to EN 50081-2, EN 50082-1, EN 50082-2/to IEC 68-2-6 Test FC/to IEC 68-2-27 Test EA		
Weight	250 g with connecting cable (front reading window)		
Operating/storage temperature	0 ... + 40 °C/- 20 ... + 70 °C		
Max. rel. humidity	90 %, non condensing		

**Australia**

Phone +61 3 9497 4100  
(0 08) 33 48 02-toll free  
Fax +61 3 9497 1187

**Austria**

Phone +43 22 36-62 28 8-0  
Fax +43 22 36-62 28 85

**Belgium/Luxembourg**

Phone +32 24 66 55 66  
Fax +32 24 63 31 04

Laser Measurement Systems:  
Phone +32 9 2240 394  
Fax +32 9 2235 645

**Brazil**

Phone +55 11 5561 2683  
Fax +55 11 5535 4153

**China/Hong Kong**

Phone +85 2 2763 6966  
Fax +85 2 2763 6311

**Czech Republic**

Phone +42 02-579 11 850  
+42 02-578 10 561  
Fax +42 02-578 10 559

**Denmark**

Phone +45 45 82 64 00  
Fax +45 45 82 64 01

**Finland**

Phone +358 9-728 85 00  
Fax +358 9-728 85 055

**France**

Phone +33 1 64 62 35 00  
Fax +33 1 64 62 35 77

**Germany**

Phone (+49 2 11) 53 01-0  
Fax (+49 2 11) 53 01-1 00

**Great Britain**

Phone +44 17 27-83 11 21  
Fax +44 17 27-85 67 67

**Italy**

Phone +39 02-92 14 20 62  
Fax +39 02-92 14 20 67

**Japan**

Phone +81 3 3358 1341  
Fax +81 3 3358 0586

**Netherlands**

Phone +31 30 229 25 44  
Fax +31 30 229 39 94

Laser Measurement Systems:  
Phone +31 73 599 50 44  
Fax +31 73 599 47 18

**Norway**

Phone +47 67 56 7500  
Fax +47 67 56 6610

**Poland**

Phone +48 22 837 40 50  
Fax +48 22 837 43 88

**Singapore**

Phone +65 744 3732  
Fax +65 841 7747

**Spain**

Phone +34 93 4 80 31 00  
Fax +34 93 4 73 44 69

**Sweden**

Phone +46 8-680 64 50  
Fax +46 8-710 18 75

**Switzerland**

Phone +41 41 61 92 93 9  
Fax +41 41 61 92 92 1

**Taiwan**

Phone +886 2 2365-6292  
Fax +886 2 2368-7397

**USA**

Phone +1 (952) 941-6780  
Fax +1 (952) 941-9287

Representatives and agencies in all major industrial countries.



SICK AG  
Division Auto Ident  
Nimburger Straße 11  
79276 Reute  
Germany  
www.sick.de

Received from your SICK partner: