

CLV410/412/414 Bar Code Scanner



Standard Line

The small powerful system

The CLV41x Family is userfriendly and can be easily integrated into your application with a high reliability.

The optical concept of "Autocollimation", SICK's standard for high performance scanner, is integrated into a housing with very small dimensions. This guarantees highly stable reading properties under ambient light conditions and large reading distances for small module widths.

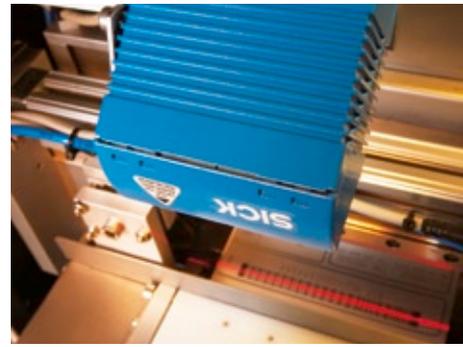
Your benefits:

- Easy to use
- Quick installation
- Minimized costs due to integrated functions
- Quick adaptation to your application
- Flexible integration even in highly sophisticated machines
- Highest availability
- High reliability

The CLV410/412/414 at a glance:

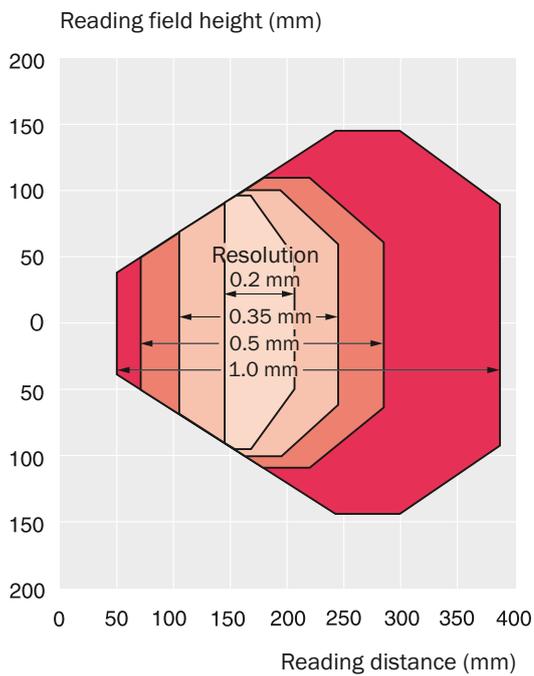
- Line Scanner and Raster Scanner option
- Reflector Polling generates an automatic trigger
- Profile Programming makes configuration easy
- AutoSetup for flexible adjustment
- Autocollimation guarantees high reading reliability
- Beeper reports the reading gate
- Power supply tolerates a wide range of input voltage
- Compact housing for tight fits

CLV410/412/414 Bar Code Scanner

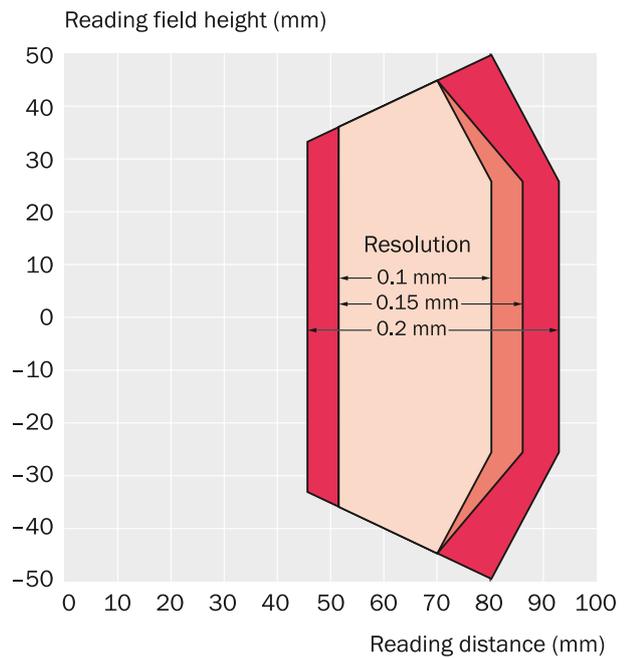


Line/Raster Scanner with Front Reading Window^{*)}

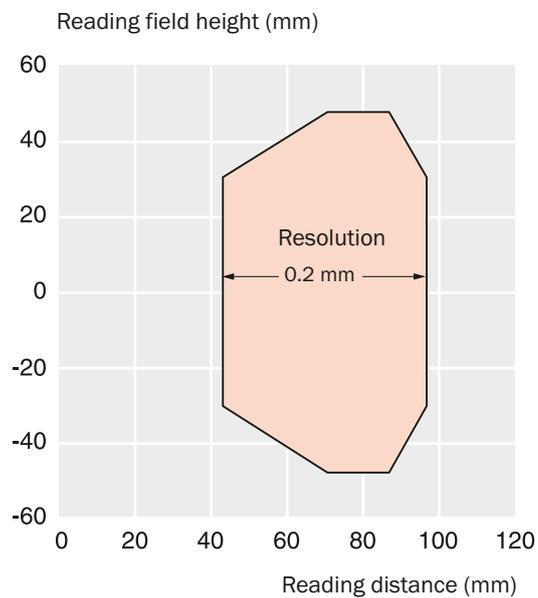
CLV410 Standard Range



CLV412 High Density



CLV414 Short Range



^{*)} Line/Raster Scanner with Side Reading Window:
The whole reading range shifts by approx. 15 mm towards the reading window. The aperture angle is max. 50°.

Technical Data Line/Raster Scanner

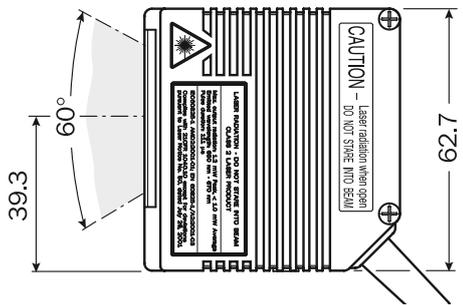
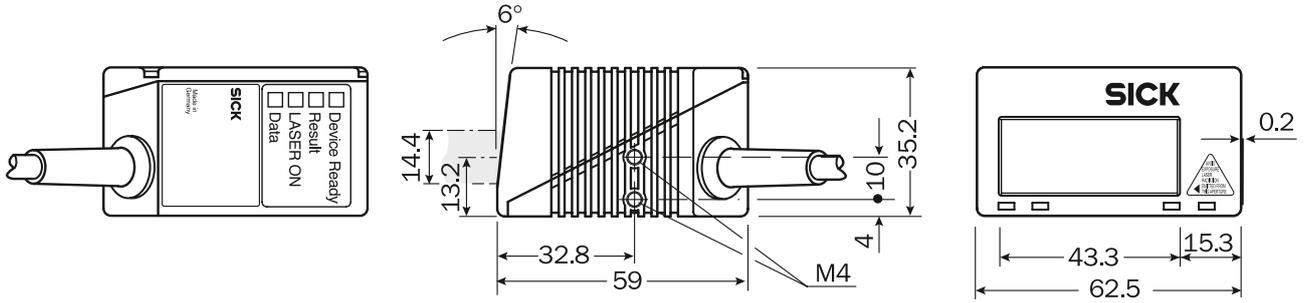
Type	CLV410 (Standard Range)	CLV412 (High Density)	CLV414 (Short Range)
Line scanner	CLV410-0010 Order No. 1015421	CLV412-0010 Order No. 1017527	CLV414-0010 Order No. 1017386
Raster scanner	CLV410-1010 Order No. 1015427	CLV412-1010 Order No. 1017528	CLV414-1010 Order No. 1017767
Line scanner with 105° angle attachment	CLV410-2010 Order No. 1017534	CLV412-2010 Order No. 1017538	CLV414-2010 Order No. 1017396
Raster scanner with 105° angle attachment	CLV410-3010 Order No. 1017536	CLV412-3010 Order No. 1017540	CLV414-3010 Order No. 1017831
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 ($\lambda = 670 \text{ nm}$)		
MTBF of laser diode	20,000 h		
Laser class	Class 2 (pursuant to EN 60825-1)		
Useful aperture angle	Max. 60° (front reading window)/max. 50° (side reading window)		
Scanning/decoding frequency	200 to 800 Hz		
Resolution	0.2 to 1.0 mm	0.1 to 0.2 mm	0.2 to 0.5 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	2,000 lx (on bar code)		
No. of bar codes per scan	1 to 3		
No. of bar codes per reading interval	1 to 10		
Bar code types	Code 39, Code 128, Code 93, Codabar, EAN, EAN 128, UPC, 2/5 Interleaved, Pharmacode		
Bar code length	Max. 50 characters (max. 100 characters across all bar codes per reading interval)		
Print ratio	2:1 to 3:1		
No. of multiple reads	1 to 99		
Optical indicators	4 x LEDs (status indicators)		
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 und RS 422/485, variable data output format		
Data transfer rate	300 to 57,600 Bd		
Protocols	SICK Standard, SICK Network (RS-485)		
Physical configurations	Stand-alone, SICK Network		
Switching inputs	2 ("Sensor 1", "Sensor 2")		
Switching outputs	3 ("Result 1", "Result 2", "Result 3")		
Electrical connection	15-pin D Sub HD connector, cable length 0.9 m		
Operating voltage/power consumption	5 to 30 V DC*/max. 3 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 IEC 1010-1)		
EMC/vibration/shock tested	To EN 61000-6-3, EN 61000-6-2/to IEC 68-2-6 Test FC/to IEC 68-2-27 Test EA		
Weight	250 g with connecting cable (front reading window)/320 g (side reading window)		
Operating/storage temperature	0 to +40 °C/-20 to +70 °C		
Max. rel. humidity	90 %, non condensing		
Colour	SICK blue (RAL 50129)		

*) UL certificated when a class 2 power supply according to UL 1310 is used

Dimensional drawing

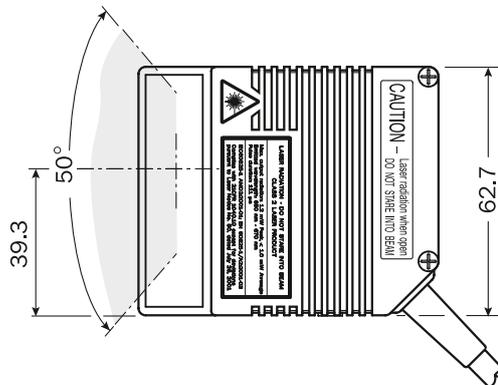
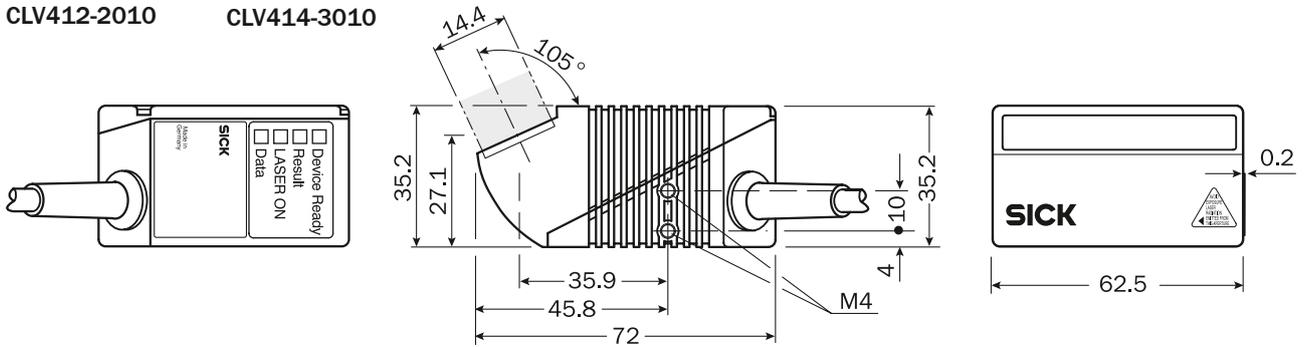
Front Reading Window

- CLV410-0010 CLV412-1010
- CLV410-1010 CLV414-0010
- CLV412-0010 CLV414-1010



Side Reading Window

- CLV410-2010 CLV412-3010
- CLV410-3010 CLV414-2010
- CLV412-2010 CLV414-3010



All dimensions in mm