



CLV 405 Bar Code Scanner Standard Line

Small, but with big performance

With the bar code scanners of the CLV 405 product family, SICK can solve ambitious applications in different market segments such as packaging machinery, robotic handling, clinical analyzers or document processing in an intelligent manner.

Packaged in an extremely small housing of only 44.5 x 44.5 x 21.6 mm³, the CLV 405 is able to identify bar codes with a scanning frequency of up to 1,000 Hz. In addition, very long bar code labels can be decoded at a short reading distance, because the laser light is emitted with an aperture angle of 70°.

It goes without saying that the CLV 405 also offers maximum performance regarding variable reading distances and operating comfort. With the help of the Setup-Button, which is integrated in the housing, different procedures like Auto-Setup, Percentage Evaluation of reading quality, Matchcode Teach-In or permanent saving of reading parameters can be started. With the above functionality the CLV 405 can be easily first time installed onsite without any PC support.

Your benefits:

- Easy mechanical installation even in space limited applications due to the very compact size
- Identification of long bar code labels at short reading distances
- High first read rate even for fast moving objects
- First time onsite installation without PC support possible

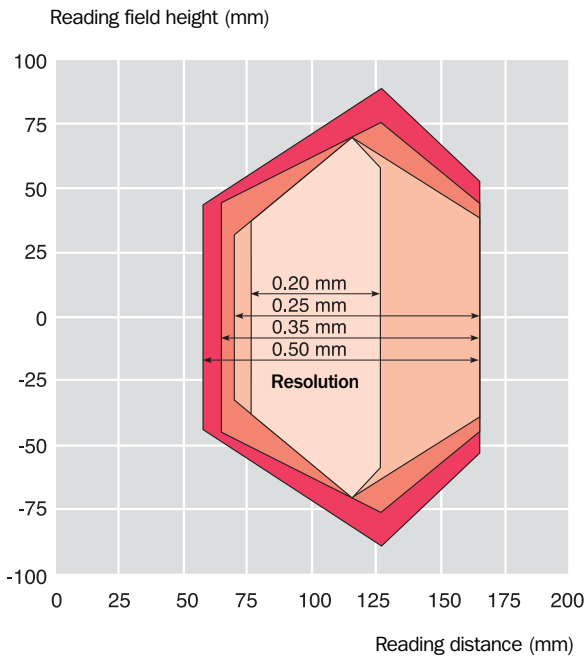
The CLV 405 at a glance:

- Extremely small housing size
- High scanning frequency up to 1,000 Hz
- Large aperture angle
- Large depth of field
- Integrated Setup-Button

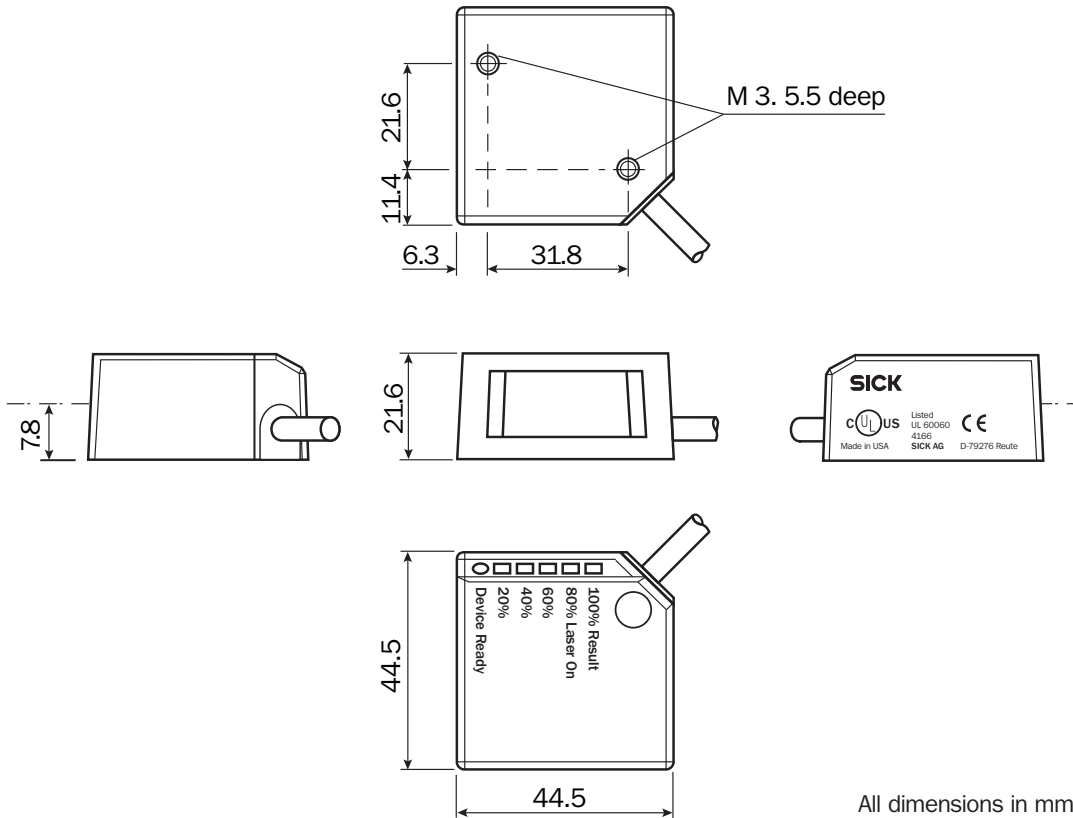
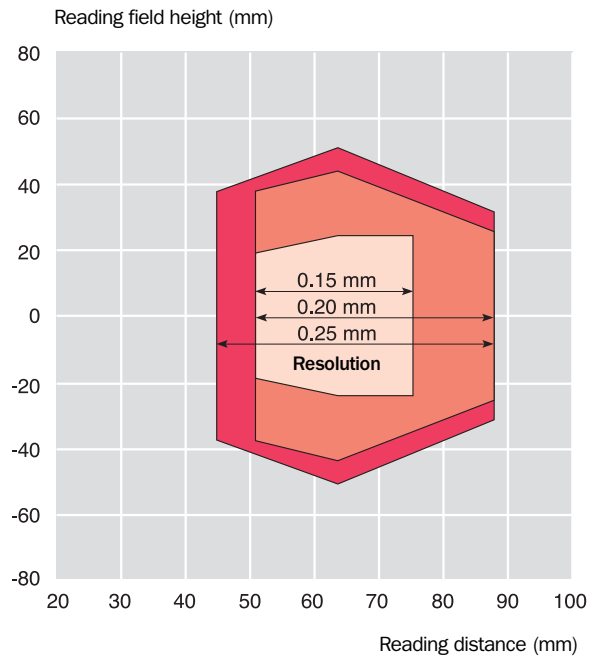
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Reading field diagrams

CLV 405 - 0010
CLV 405 - 1010



CLV 405 - 0011
CLV 405 - 1011



All dimensions in mm

Technical data

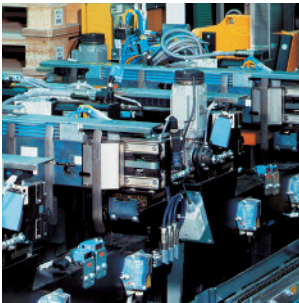
Type	CLV 405 (Standard-Density)	CLV 405 (High-Density)
Line scanner (front reading window)	CLV 405-0010/Order No. 6 028 376	CLV 405-0011/Order No. 6 028 377
Raster scanner (front reading window)	CLV 405-1010/Order No. 6 028 638	CLV 405-1011/Order No. 6 028 639
Focus	Fixed focus	
Laser diode (wave length)	Visible red light ($\lambda= 650$ nm)	
MTBF of laser diode	20,000 h	
Laser class	Class 2 (pursuant to DIN EN 60825-1)	
Useful aperture angle	Max. 70°	
Scanning/decoding frequency	300 to 1,000 Hz	
Resolution	0.2 to 0.5 mm	0.15 to 0.25 mm
Raster height	6 mm at 100 mm reading distance (front reading window)	
Code print contrast (PCS)	≥ 60%	
Immunity to ambient light	350 lx (on bar code)	
No. of bar codes per scan	1 to 6	
No. of bar codes per reading interval	1 to 6	
Bar code types	All popular bar codes	
Bar code length	Max. 50 characters	
Print ratio	2:1 to 3:1	
No. of multiple reading	1 to 99	
Optical indicators	6 x LEDs (status indicator)	
Acoustic indicators	Beeper, can be deactivated and assigned to a function for result status indication	
Reading pulse	Switching input/serial interface/free-running	
“Host“ data interface	RS 232 True, variable data output format	
Data transfer rate	600 to 57,600 bd	
Protocols	SICK Standard	
Physical configurationen	Stand-alone, Daisy-Chain, Master/Slave	
“Terminal“ data interface	RS 232 TTL, 9,600 bd, 8 data bits, no parity, 1 stop bit, fixed data output format	
Switching inputs	2 (“Sensor 1“, “Sensor 2“), NPN	
Switching outputs	3 (“Result 1“ to “Result 3“), not opto-decoupled, TTL	
Electrical connection	15-pin D Sub HD connector, cable length 0.9 m	
Operating voltage/power consumption	5 V DC ± 5 %/2 W	
Housing	Metal	
Enclosure rating/protection class	IP 52 (to DIN 4050)/ class 3 (to (VDE 0106/IEC 0101-1)	
EMC/vibration/shock tested	to EN 60950-1, EN 55022, EN 55024/to IEC 60068-2-6, to IEC 60068-2-64/to IEC 60068-2-27	
Weight	57 g, without connecting cable (front reading window)	
Temperature (operating/storage)	0 to +40 °C/-20 to +70 °C	
Max. relative humidity	90 %, non-condensing	

Note: For setting-up operation, a power supply unit and an interface cable are additionally required.

RANGE OF EXPERTISE

INDUSTRIAL SENSORS

Our complete range of sensors provides answers to suit any application in the field of automation. Even under rugged ambient conditions objects are reliably detected, counted and positioned in respect of their form, location and surface finish, as well as their distances established with pin-point accuracy.



INDUSTRIAL SAFETY SYSTEMS

Comprehensive safeguarding of both personnel and machinery! As specialists in Sensor Technology, SICK develops and manufactures pioneering products for providing protection in hazardous zones, dangerous locations and for safeguarding access points. By providing services, which encompass all aspects of machine safety and security, SICK is setting new standards in Safety Technology.



AUTO IDENT

Whether the tasks involve identification, handling, classification or volume measurement, innovative Auto Ident systems and laser measuring systems function extremely reliably, even under rapid cycle times. They conform to the latest Standards and can be simply and speedily integrated in all industrial environments and external applications.



ANALYZERS AND PROCESS INSTRUMENTATION

System control, maintaining setpoints, optimising process control and monitoring the flow of materials – the instruments and services for Analysis and Process Measurement, supplied by SICK MAIHAK, are setting the standards for these applications in terms of Technology and Quality.



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