CLV64x

1D code identification using a scanner with dynamic focus

SICK
Sensor Intelligence.

Advantages

Dynamic adjustment of the depth of field

The CLV64x with dynamic focus is in its element if barcodes have to be read reliably on transport boxes of different sizes. The depth of field adjusts automatically when reading is triggered by devices such as photoelectric sensors.

dynamic focus
With just one CLV64x, different reading distances are possible and objects in this reading field can be reliably identified. Dynamic focus adjustment allows the fixed mount barcode scanner to cover all focus positions and the entire depth of field, eliminating the need to purchase multiple devices.
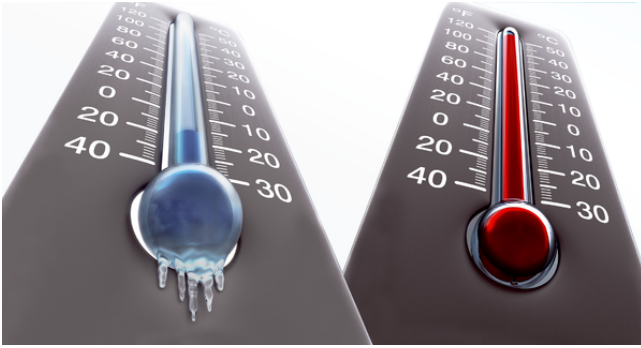
Dynamic focus eliminates the need to purchase multiple fixed mount barcode scanners for different reading distances.

One fixed mount barcode scanner, many applications

The application possibilities for fixed mount barcode scanners are manifold. It's good when the devices are designed to withstand a wide range of ambient conditions. The CLV64x is reliable even in sub-zero temperatures or in wet environments. With the oval light spot, it can reliably read even challenging codes such as DPM codes.

Withstands fluctuating ambient temperatures
Depending on the device variant, the CLV64x is equipped with surface-mounted heating in order to work reliably even in deep-freeze environments down to –35 °C. Thanks to the intelligent controller, the fixed mount barcode scanner can take advantage of cheaper night electricity rates.

Reliable reading of tricky barcodes
The oval light spot provides high reading performance where code reading is complex, such as with large distortions, low-contrast printing, fuzzy edges, or direct part marking (DPM) on rough or textured surfaces such as with inkjet printing.

Steadfast in harsh environments
Cleaning processes at high temperatures, with high-pressure jets or aggressive cleaning products are part of everyday life in the food industry. The IP69K device variants of the CLV64x with Inox stainless-steel housing, integrated plastic viewing window and Ecolab-certified cables easily withstand these conditions.
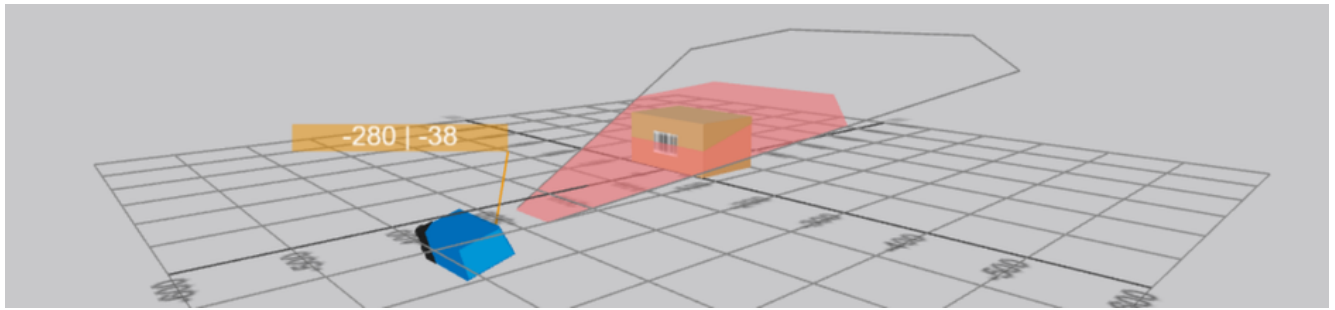

Shatterproof HACCP plastic viewing window
The HACCP (Hazard Analysis and Critical Control Points) standard requires a hazard analysis and identification of critical control points in the food industry. As this also includes components made of glass, the CLV64x is available with a shatterproof plastic viewing window as an option.

Flexible use thanks to outstanding device features for demanding environments

Virtual product demo before purchase? SICK makes it possible.

Bring our products to life: Our reading field visualization tools can be used to visualize all CLV64x device variants. Select your device parameters and use our tool to find out which product variant is the best one for your device. Uncertainty when selecting products is a thing of the past.

Use product visualization to help you select the exact right product before you buy.

SICK LifeTime Services

SICK's services increase machine and plant productivity, enhance the safety of people all over the world, provide a solid foundation for a sustainable business operation, and protect investment goods. In addition to its usual consulting services, SICK provides direct on-site support during the conceptual design and commissioning phases as well as during operation.

The range of services not only covers aspects like maintenance and inspection, but also includes performance checks as well as upgrades and retrofits. Modular or customized service contracts extend the service life of plants and therefore increase their availability. If faults occur or limit values are exceeded, these are detected at all times by the corresponding sensors and systems.

Consulting and design
Application-specific advice on the product, its integration and the application itself.

commissioning and maintenance
Application-optimized and sustainable — thanks to professional commissioning and maintenance by a trained SICK service technician.

service contracts
Extended warranty, SICK Remote Service, 24-hour helpdesk, maintenance, availability guarantees and other modular components can be individually combined on request.

Technical data overview

Optical focus	Dynamic focus control
Aperture angle	≤ 50°
Scanning frequency	400 Hz ... 1,200 Hz
Code resolution	0.15 mm ... 1 mm (depending on type)
Reading distance	30 mm ... 840 mm (depending on type)
PROFINET	✓, optional over external fieldbus module / ✓ (depending on type)
EtherCAT	✓, optional over external fieldbus module
Serial	✓, RS-232, RS-422, RS-485
CAN	✓
CANopen	✓
PROFIBUS DP	✓, optional over external fieldbus module
Ethernet	✓, TCP/IP
EtherNet/IP™	✓
Weight	250 g ... 1,230 g (depending on type)

Product description

The CLV64x barcode scanners offer dynamic focus adjustment extending the range of the scanner for those applications where fixed focus comes up short but autofocus is outside the budget. Newly improved SMART algorithms in the CLV64x are superior when reading damaged and tilted codes.

Combine single line, raster, oscillating mirror, high density and low contrast variants with exceptional reading performance and flexible data handling capabilities, and you have all the ingredients for solving high-performance applications in the material handling and logistics markets. Variants include line, raster, side reading window and oscillating mirror versions; available with Ethernet.

At a glance

- Dynamic focus adjustment enables extended depth of field
- Integrated function buttons, e. g., for starting auto setup or reading quality evaluation
- CAN, Ethernet TCP/IP, PROFINET, and EtherNet/IP on board. No additional Ethernet gateway required (for "Ethernet" connection type)
- Enhanced SMART code reconstruction technology
- Flexible sorting, filtering, and logical functions
- Advanced, easy-to-use SOPAS configuration software
- Integrated LED bar graph
- Advanced remote diagnostics and network monitoring capabilities available over Ethernet

Your benefits

- Economical, as only one CLV64x is required for all focus positions
- Intelligent auto setup and multi-function pushbuttons save time during commissioning
- Teach-in of match code possible via the pushbuttons
- Easily execute firmware updates using the microSD memory card: no need for a PC
- No supplementary Ethernet gateway required with Ethernet models – lowers costs
- Enhanced SMART technology reads damaged and partially obscured codes, increasing read rates
- Increased scanner intelligence enables sophisticated configuration of logical operations, reducing the control system programming effort. Data is then delivered in the desired format
- Real-time code identification even at very high conveyor speeds

Fields of application

- Food, beverages: barcode identification in packaging and repackaging processes and identification in washdown zones
- Aggregation of food and pharmaceutical packaging
- Warehouse conveyor technology: barcode identification of objects on pallets
- Medical technology: clinical analysis
- Identification of test tubes in transport racks

Ordering information

Other models and accessories ➜ www.sick.com/CLV64x

- **Optical focus:** dynamic focus control
- **Type:** Cable connection variant
- **Code printing process:** Label (printed codes)
- **Communication interface:** PROFINET, EtherCAT®, Serial, CAN, CANopen, PROFIBUS DP
- **Window material:** Glass
- **Enclosure rating:** IP65

Max. reading distance	Code resolution	Sensor type	Type	Part no.
≤ 338 mm	0.15 mm … 0.25 mm	Line scanner	CLV642-2000	1044875
≤ 345 mm	0.15 mm … 0.25 mm	Line scanner	CLV642-0000	1044873
≤ 738 mm	0.2 mm … 1 mm	Line scanner	CLV640-2000	1042018
		Raster scanner	CLV640-3000	1042020
≤ 755 mm	0.2 mm … 1 mm	Oscillating mirror	CLV640-6000	1042022
≤ 840 mm	0.2 mm … 1 mm	Line scanner	CLV640-0000	1042014
		Raster scanner	CLV640-1000	1042016

- **Optical focus:** dynamic focus control
- **Type:** Cable connection variant
- **Code printing process:** Inkjet (directly marked codes)
- **Communication interface:** PROFINET, EtherCAT®, Serial, CAN, CANopen, PROFIBUS DP

Max. reading distance	Code resolution	Sensor type	Window material	Enclosure rating	Type	Part no.
≤ 738 mm	0.2 mm … 1 mm	Raster scanner	Glass	IP65	CLV640-3000S01	1063838

- **Optical focus:** dynamic focus control
- **Type:** Rotary angle variant single port (12-pin)
- **Code printing process:** Label (printed codes)
- **Communication interface:** Ethernet, PROFINET, EtherNet/IP™, EtherCAT®, Serial, CAN, CANopen, PROFIBUS DP
- **Window material:** Glass
- **Enclosure rating:** IP65

Max. reading distance	Code resolution	Sensor type	Type	Part no.
≤ 345 mm	0.15 mm … 0.25 mm	Line scanner	CLV642-0120	1044874
≤ 738 mm	0.2 mm … 1 mm	Line scanner	CLV640-2120	1042019
		Raster scanner	CLV640-3120	1042021
≤ 755 mm	0.2 mm … 1 mm	Oscillating mirror	CLV640-6120	1042023
≤ 840 mm	0.2 mm … 1 mm	Line scanner	CLV640-0120	1042015
		Raster scanner	CLV640-1120	1042017

- **Optical focus:** dynamic focus control
- **Type:** Rotary angle variant single port (12-pin)
- **Code printing process:** Inkjet (directly marked codes)
- **Communication interface:** Ethernet, PROFINET, EtherNet/IP™, EtherCAT®, Serial, CAN, CANopen, PROFIBUS DP
- **Max. reading distance:** ≤ 755 mm
- **Code resolution:** 0.2 mm ... 1 mm
- **Sensor type:** Oscillating mirror
- **Enclosure rating:** IP65

Window material	Type	Part no.
Glass	CLV640-6120S01	1048449
Plastic	CLV640-6121S01	1056544

- **Optical focus:** dynamic focus control
- **Type:** Rotary angle variant single port (17-pin)
- **Code printing process:** Label (printed codes)
- **Communication interface:** Ethernet, PROFINET, EtherNet/IP™, EtherCAT®, Serial, CAN, CANopen, PROFIBUS DP
- **Code resolution:** 0.2 mm ... 1 mm
- **Window material:** plastic
- **Enclosure rating:** IP69K

Max. reading distance	Sensor type	Type	Part no.
≤ 717 mm	Line scanner	CLV640-6831S01	1063932
≤ 798 mm	Oscillating mirror	CLV640-0831S01	1064718

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is "Sensor Intelligence."

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