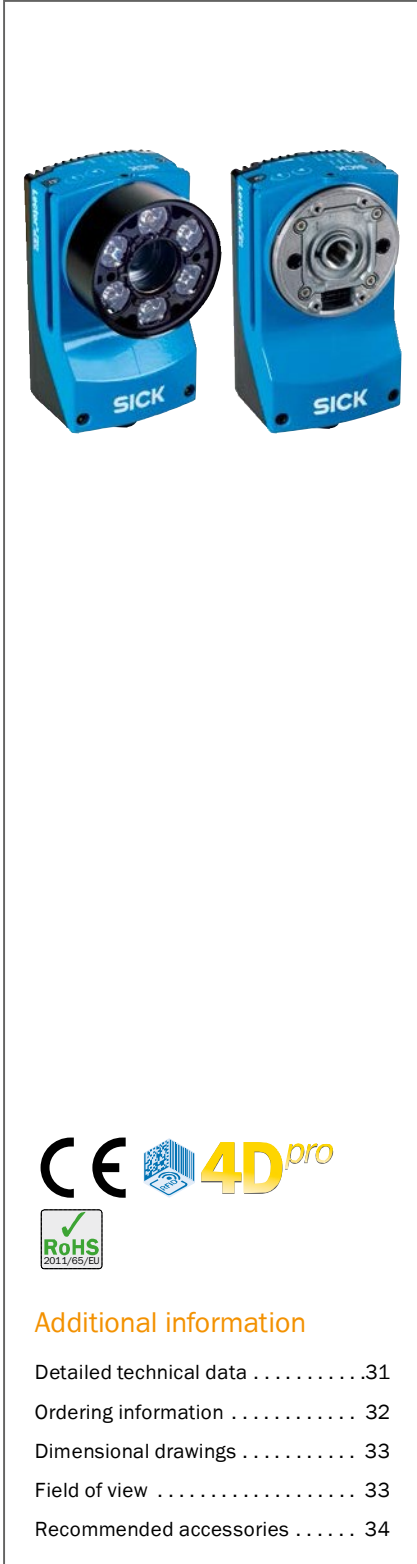




INTELLIGENT. FLEXIBLE. INTUITIVE.



Product description

The Lector63x is a flexible image-based code reader. With its high image resolution, compact housing and exchangeable optical design it is well equipped for a variety of needs. It can easily be used for small codes, in high production

speeds or for long-range identification. The Lector63x is easy to handle: quick optical exchange, intuitive user interface, aiming laser, beeper, LED feedback and MicroSD card – simplifying setup, operation and maintenance!

At a glance

- Code reader with 2 megapixel sensor
- Flexible optics and filter design
- Integrated, changeable high-power lighting
- Intuitive user interface, including flexible result string with code analytics options
- Function buttons, aiming laser, beeper and feedback indicator
- MicroSD card

Your benefits

- High-resolution sensor and intelligent processing ensure outstanding reading performance, even under difficult reading conditions
- Flexible optical design and high-power illumination enable small codes to be read at high speeds or in applications with a large reading distance
- Fast, straightforward commissioning thanks to the intuitive user interface; function button for rapid device setup; integrated illumination and aiming laser
- Direct results monitoring thanks to acoustic signal and colored feedback spot on the object
- Few machine downtimes in the event of faults on the production line, thanks to straightforward cloning function using microSD memory card



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→ www.mysick.com/en/Lector63x

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



Detailed technical data

Features

Focus	Adjustable focus (manually)
Sensor	CMOS matrix sensor, gray scale values
Light source	To be ordered separately as accessory Aiming laser: visible red light ($\lambda = 630 \text{ nm} \dots 680 \text{ nm}$)
Laser class	1, complies with 21 CFR 1040.10 except for the tolerance according to "Laser Notice No. 50" from June 24, 2007 (IEC 60825-1 (2007-3))
Scanning frequency	$\leq 50 \text{ Hz}$, at 1.9 megapixels resolution
Code resolution	$\geq 0.1 \text{ mm}^{1)}$
Reading distance	50 mm ... 2,200 mm ¹⁾

¹⁾ Depends on lens used, for details see field of view diagram.

Performance

Bar code types	GS1-128 / EAN 128, UPC / GTIN / EAN, Interleaved 2 of 5, Pharmacode, GS1 DataBar, Code 39, Code 128, Codabar, Code 32, Code 93, USPS (Postnet, Planet, USPS4SCB), Australian Post, Dutch KIX Post, Royal Mail, Swedish Post
2D code types	Data Matrix ECC200, GS1 Data-Matrix, MaxiCode, QR code
Stacked code types	PDF417
Code qualification	On the basis of ISO/IEC 16022, ISO/IEC 15415, ISO/IEC 18004

Interfaces

Serial (RS-232, RS-422)	✓
Function	Host, AUX
Data transmission rate	300 Baud ... 115.2 kBaud, AUX: 57.6 kBaud (RS-232)
USB	✓, USB 2.0
Ethernet	✓
Function	Host, AUX, image transmission
Data transmission rate	10/100/1,000 Mbit/s
Protocol	TCP/IP, FTP (image transmission), EtherNet/IP, PROFINET (optional over external fieldbus module CDF600-2)
CAN bus	✓
Function	SICK CAN sensor network (Master/Slave, Multiplexer/Server)
Data transmission rate	250 kbit/s ... 500 kbit/s
Protocol	CSN (SICK CAN Sensor Network)
PROFIBUS DP	✓, Optional over external fieldbus module (CDF600-2)
Switching inputs	4 ("Sensor 1", "Sensor 2", 2 inputs via optional CMC600 parameter memory in CDB650/CDM420)
Configurable inputs	Encoder input, external trigger
Switching outputs	6 (CDB650: "Result 1", "Result 2", "Result 3", "Result 4", 2 external outputs via CMC600 or CDM420: "Result 1", "Result 2", 2 external outputs via CMC600 or cable with open end: "Result 1", "Result 2", "Result 3", "Result 4")
Configurable outputs	Good read, External illumination control, free configurable output condition, "device ready"
Reading pulse	Switching inputs, non-powered, serial interface, Ethernet, CAN, auto pulse, presentation mode
Optical indicators	11 LEDs (5 x status display, 5 x LED bar graph, 1 green/red feedback spot)
Acoustic indicators	Beeper (configurable)
Control elements	2 buttons
Configuration software	SOPAS ET
Memory card	Micro SD memory card (flash card) max. 32 GB, optional
Data storage and retrieval	Images and file logging via MicroSD memory card, internal memory and external FTP

Maximum encoder frequency	1 kHz
External illumination control	Via digital output (max. 24 V trigger) or via external illumination connector

Mechanics/electronics

Electrical connection	1 x M12, 17-pin plug (serial, CAN, I/Os, power supply) 1 x M12, 8-pin socket (Ethernet, 1 GBit/s) 1 x M8, 4-pin socket (USB) 1 x M12, 4-pin socket (external illumination control)
Operating voltage	24 V DC, ± 20 %
Power consumption	Typ. 10 W, ± 20 %
Output current	≤ 100 mA
Housing	Aluminum die cast
Weight	430 g, without lens and connection cables
Dimensions	108 mm x 63 mm x 46 mm ¹⁾

¹⁾ Only housing without lens and protective hood.

Ambient data

Electromagnetic compatibility (EMC)	EN 61000-6-2 (2005-08) / EN 61000-6-3 (2007-01)
Vibration resistance	EN 60068-2-6 (2008-02)
Shock resistance	EN 60068-2-27 (2009-05)
Electrical safety	EN 60950-1 (2011-01)
Ambient operating temperature	0 °C ... +50 °C
Storage temperature	-20 °C ... +70 °C
Permissible relative humidity	90 %, Non-condensing

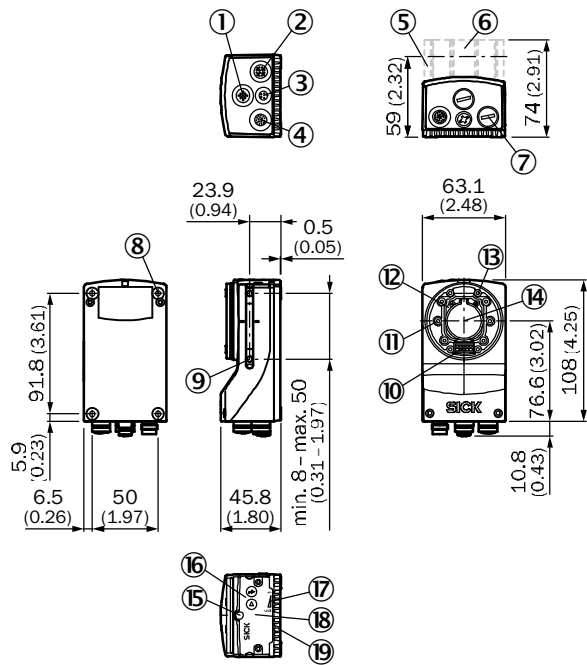
Ordering information

- **Version:** Lector632 Flex
- **Sensor resolution:** 1,600 px x 1,200 px
- **Enclosure rating:** IP 67

Lens	Type	Part no.
Exchangeable (C-mount), to be ordered separately as accessory	V2D632R-MXCXB0 Flex	1075881
Exchangeable (S-mount), to be ordered separately as accessory	V2D632R-MXSXB0 Flex	1067380

Dimensional drawings (Dimensions in mm (inch))

Lector632 Flex

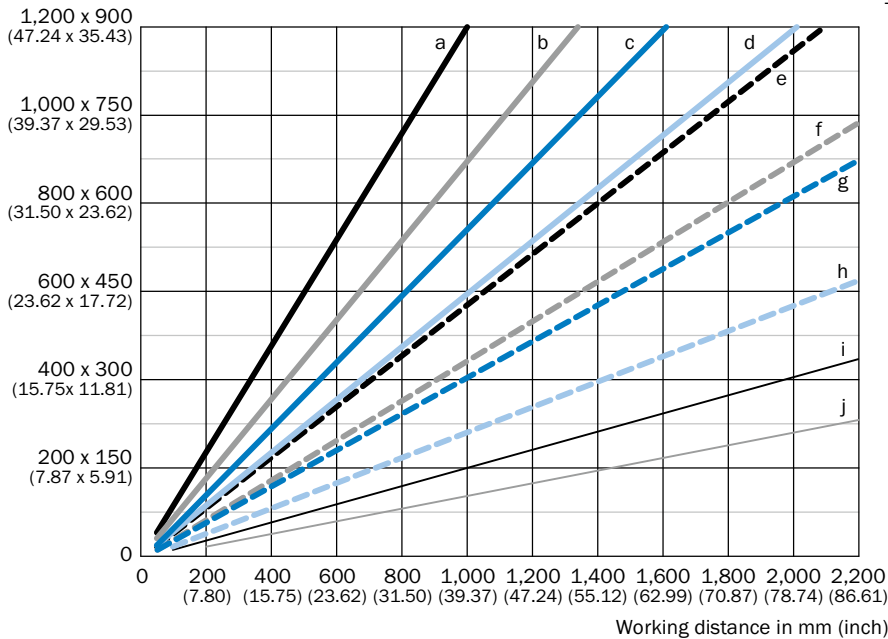


- ① External light connector
- ② Gigabit Ethernet connector
- ③ USB connector
- ④ Power, serial, CAN and I/O connector
- ⑤ 23 mm protection hood for lens and lighting
- ⑥ 38 mm protection hood for lens and lighting
- ⑦ Plug to ensure IP67 for unused connectors
- ⑧ Blind hole thread M5, 5.5 mm deep (4 x)
- ⑨ Sliding nut M5, 5.5 mm deep (4 x)
- ⑩ Integrated lighting connector
- ⑪ Aiming laser (2 x)
- ⑫ S- or C-mount optical module
- ⑬ Blind hole thread 2.5 mm (4 x) for mounting integrated lighting
- ⑭ Optical axis and center of image sensor
- ⑮ Manual focus screw, hidden under cover/sticker (S-mount Flex)
- ⑯ Function button (2 x)
- ⑰ Bar graph LED display (5 x)
- ⑱ Removable cover for microSD card and manual focus screw
- ⑲ Status LED display (5 x 2 levels)

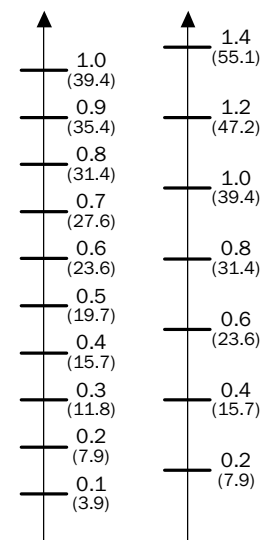
Field of view

Long sensing range of up to 2.2 m working distance

Field of view width x height in mm² (sq inch), typical values



Min. resolution in mm (mil)
1D code 2D code

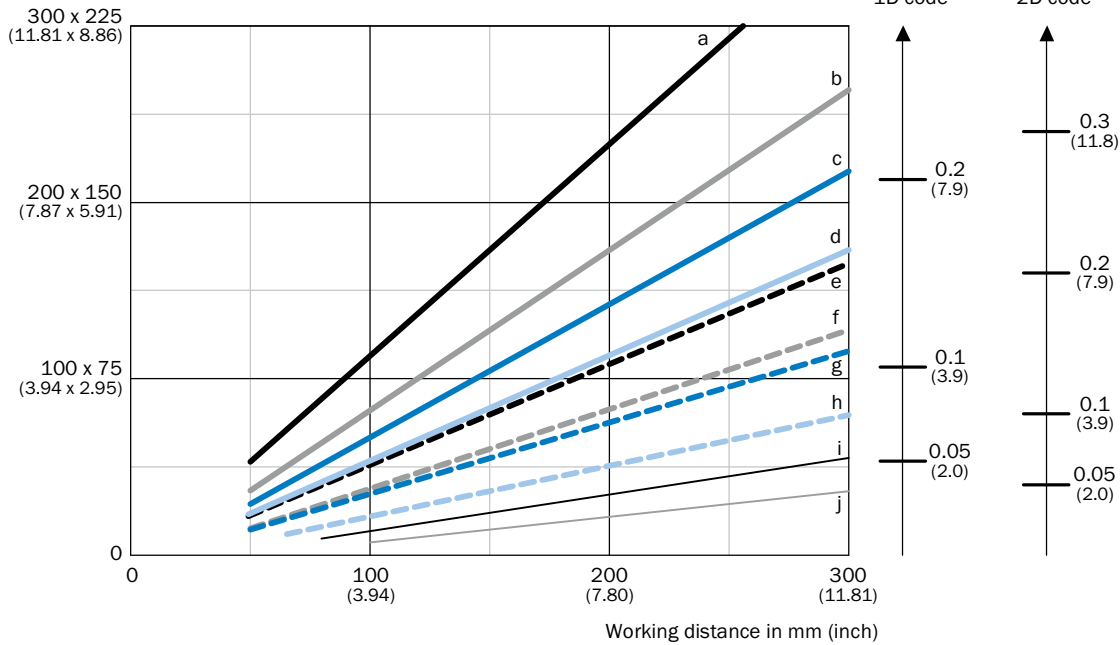


- a: f = 6.0 mm - - - f: f = 16.0 mm
- b: f = 8.0 mm - - - g: f = 17.5 mm
- c: f = 9.6 mm - - - h: f = 25.0 mm
- d: f = 12.0 mm — i: f = 35.0 mm
- e: f = 12.5 mm — j: f = 50.0 mm

For S-mount and standard C-mount lenses, distance rings are needed for working distances shorter than approximately 10 times the focal length. For Compact C-mount lenses, distance rings are not needed, but the integratable lighting cannot be used for distances shorter than 300 mm

Short sensing range of up to 0.3 m working distance

Field of view width x height in mm² (sq inch), typical values




- a: f = 6.0 mm - - - f: f = 16.0 mm
- b: f = 8.0 mm - - - g: f = 17.5 mm
- c: f = 9.6 mm - - - h: f = 25.0 mm
- d: f = 12.0 mm — i: f = 35.0 mm
- - - e: f = 12.5 mm — j: f = 50.0 mm

For S-mount and standard C-mount lenses, distance rings are needed for working distances shorter than approximately 10 times the focal length. For Compact C-mount lenses, distance rings are not needed, but the integratable lighting cannot be used for distances shorter than 300 mm


Recommended accessories

Mounting systems

Mounting brackets and mounting plates


	Brief description	Part no.
	Mounting bracket with screws, L-shaped for sliding nuts mounting including skew angle display	2078970

Terminal and alignment brackets



	Brief description	Part no.
 Illustration may differ	Distance bracket and light extension connector for mounting integratable lighting, length 15 mm, used with compact C-mount lenses with focal length of 12 mm or 25 mm and S-mount lens with focal length 25mm	2079501

Connection systems

Modules


	Brief description	Type	Part no.
	Connection device basic for connecting one sensor with 2 A fuse, 5 cable glands and RS-232 interface to sensor via M12, 17-pin female connector, all outputs available on screw/spring-loaded terminals, including trigger unit functionality for external illumination	CDB650-204	1064114

Plug connectors and cables



	Signal type/application	Connection type head A	Connection type head B	Cable	Cable length	Part no.
	Power, serial, CAN, digital I/Os	Female connector, M12, 17-pin, straight, A-coded	Male connector, M12, 17-pin, straight, A-coded	Drag chain use, suitable for 2 A, suitable for refrigeration	2 m	6053230
	Gigabit Ethernet/PoE	Male connector, M12, 8-pin, straight, X-coded	Male connector, RJ45, 8-pin, straight	AWG26	2 m	6049728

Reflectors and optics

Illuminations

	Brief description	Part no.
	Integratable lighting, lighting color white, suitable for S-mount and compact C-mount lenses with a focal length of 25 mm and 35 mm	2078431

Lens and accessories

	Brief description	Part no.
 Illustration may differ	Compact C-mount 2/3", focal length 25 mm, aperture 8	2079343
	Lens protective hood, enclosure rating IP 67, length 37.7 mm, PMMA, used with compact C-mount lenses with focal length of 12 mm or 25 mm and S-mount lens with focal length 25mm	2079127

→ For additional accessories, please see page 56