



# ICR620C-T11503S50 OCR

Lector62x

IMAGE-BASED CODE READERS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

Type	part no.
ICR620C-T11503S50 OCR	1062803

Other models and accessories → [www.sick.com/Lector62x](http://www.sick.com/Lector62x)

### Detailed technical data

#### Features

<b>Variant</b>	Complete device
<b>Optical focus</b>	Teach auto focus
<b>Sensor</b>	CMOS monochrome
<b>Sensor resolution</b>	752 px x 480 px (WVGA)
<b>Illumination</b>	Integrated
<b>Illumination color</b>	Red, LED, Visible, 617 nm, ± 15 nm Blue, LED, Visible, 470 nm, ± 15 nm
<b>LED class</b>	1 (IEC 62471:2006-07, EN 62471:2008-09)
<b>Feedback spot</b>	LED, Visible, green, 525 nm, ± 15 nm
<b>Alignment aid</b>	Laser, Red, 630 nm ... 680 nm
<b>Laser class</b>	1, complies with 21 CFR 1040.10 except for the conformance according to "Laser Notice No. 50" from June 24, 2007 (IEC 60825-1:2014, EN 60825-1:2014+A11:2021)
<b>Lens</b>	
Focal length	7 mm
<b>Scanning frequency</b>	60 Hz, WVGA resolution
<b>Character height</b>	≥ 1 mm
<b>Code resolution</b>	≥ 0.1 mm <sup>1)</sup>
<b>Working range</b>	30 mm ... 300 mm <sup>2)</sup>

<sup>1)</sup> Valid for Data Matrix, PDF417, and 1D codes with good print quality.

<sup>2)</sup> For details see reading field diagram.

## Mechanics/electronics

<b>Connection type</b>	1 x M12, 17-pin male connector 1 x M12, 4-pin Ethernet female connector
<b>Supply voltage</b>	10 V DC ... 30 V DC
<b>Power consumption</b>	Typ. 3 W
<b>Output current</b>	≤ 100 mA
<b>Housing material</b>	Aluminum die cast
<b>Housing color</b>	Light blue (RAL 5012)
<b>Window material</b>	Glass
<b>Enclosure rating</b>	IP65 (EN 60529 (1991-10), EN 60529/A2 (2002-02))
<b>Protection class</b>	III
<b>Electrical safety</b>	EN 60950-1 (2006-04) / EN 60950-1/A11 (2009-03)
<b>Weight</b>	170 g
<b>Dimensions (L x W x H)</b>	71 mm x 43 mm x 35.6 mm <sup>1)</sup>
<b>MTBF</b>	75,000 h

<sup>1)</sup> Swivel connector is 17.8 mm longer.

## Performance

<b>Readable code structures</b>	1D codes, Stacked, 2D codes, direct-marked codes, plain text
<b>Bar code types</b>	GS1-128 / EAN 128, UPC / GTIN / EAN, Interleaved 2 of 5, Pharmacode, GS1 DataBar, Code 39, Code 128, Codabar, Code 32, Code 93
<b>2D code types</b>	Data Matrix ECC200, GS1 Data-Matrix, PDF417, QR code, PDF417 Truncated
<b>Code qualification</b>	On the basis of ISO/IEC 16022, ISO/IEC 15415, ISO/IEC 18004, ISO TR 29158/AIM DPM
<b>OCR/OCV fonts</b>	Trainable fonts
<b>No. of codes per reading interval</b>	1 ... 50
<b>No. of characters per reading interval</b>	500 (for multiplexer function in CAN operation)
<b>Internal image storage</b>	135 MB
<b>Transport speed</b>	4 m/s

## Interfaces

<b>Ethernet</b>	✓ , TCP/IP
	Function: Data interface (read result output), Service interface, OPC DA Server, FTP (image transmission)
	Data transmission rate: 10/100 MBit/s
<b>PROFINET</b>	✓
	Function: PROFINET Single Port, PROFINET Dual Port (optional via external connection module CDF600-2)
	Data transmission rate: 10/100 MBit/s
<b>EtherNet/IP™</b>	✓
	Data transmission rate: 10/100 MBit/s
<b>EtherCAT®</b>	✓
	Type of fieldbus integration: Optional over external fieldbus module CDF600
<b>Serial</b>	✓ , RS-232, RS-422
	Function: Data interface (read result output), Service interface
	Data transmission rate: 0.3 kBaud ... 115.2 kBaud, AUX: 57.6 kBaud (RS-232)

<b>CAN</b>	✓
Function	SICK CAN sensor network CSN (CAN controller/CAN device, multiplexer/server)
Data transmission rate	20 kbit/s ... 1 Mbit/s
<b>CANopen</b>	✓
Data transmission rate	20 kbit/s ... 1 Mbit/s
<b>PROFIBUS DP</b>	✓
Type of fieldbus integration	Optional over external fieldbus module CDF600-2
<b>Digital inputs</b>	4 ("Sensor 1", "Sensor 2", 2 inputs via optional parameter storage CMC600 in CDB620/CDM420)
<b>Digital outputs</b>	4 ("Result 1", "Result 2", 2 outputs via CMC and CDB620/CDM420 or "Result 1", "Result 2", "Result 3", "Result 4" when using the 17-wire cable with open cable end)
<b>Reading pulse</b>	Digital inputs, non-powered, serial interface, Ethernet, CAN, auto pulse, presentation mode
<b>Optical indicators</b>	16 LEDs (5 x status display, 10 x LED bar graph, 1 green feedback spot)
<b>Acoustic indicators</b>	Beeper/buzzer (can be switched off, can be assigned a function to signal a result)
<b>Control elements</b>	2 buttons (choose and start/stop functions)
<b>Operator interfaces</b>	Web server
<b>Configuration software</b>	SOPAS ET
<b>Memory card</b>	Micro SD memory card (flash card) max. 32 GB, optional
<b>Data storage and retrieval</b>	Image and data storage via microSD memory card and external FTP
<b>EncoderFrequency</b>	Max. 300 Hz
<b>External illumination control</b>	Via digital output (max. 24 V trigger)

#### Ambient data

<b>Electromagnetic compatibility (EMC)</b>	EN 61000-6-2 (2006-03) / EN 61000-6-2 (2009-05)
<b>Vibration resistance</b>	EN 60068-2-6:2008-02
<b>Shock resistance</b>	EN 60068-2-27:2009-05
<b>Ambient operating temperature</b>	0 °C ... +50 °C
<b>Storage temperature</b>	-20 °C ... +70 °C
<b>Permissible relative humidity</b>	90 %, Non-condensing
<b>Ambient light immunity</b>	2,000 lx, on code

#### Certificates

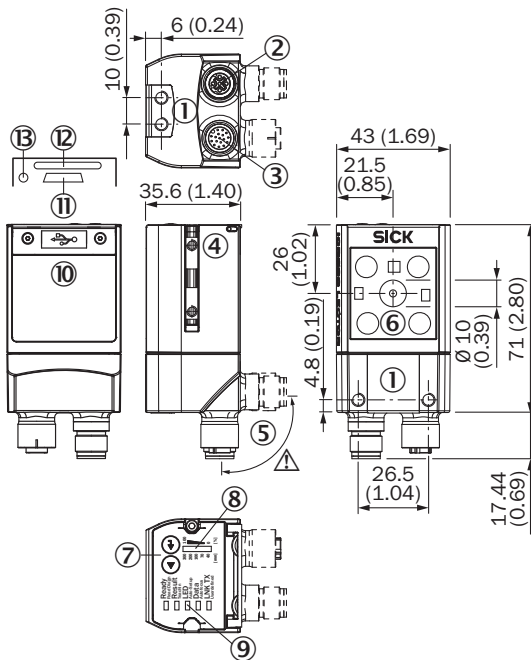
<b>EU declaration of conformity</b>	✓
<b>UK declaration of conformity</b>	✓
<b>ACMA declaration of conformity</b>	✓
<b>China RoHS</b>	✓
<b>cULus certificate</b>	✓
<b>Profinet certificate</b>	✓
<b>BIS registration</b>	✓

#### Classifications

<b>ECLASS 5.0</b>	27280103
<b>ECLASS 5.1.4</b>	27280103
<b>ECLASS 6.0</b>	27280103
<b>ECLASS 6.2</b>	27280103

<b>ECLASS 7.0</b>	27280103
<b>ECLASS 8.0</b>	27280103
<b>ECLASS 8.1</b>	27280103
<b>ECLASS 9.0</b>	27280103
<b>ECLASS 10.0</b>	27280103
<b>ECLASS 11.0</b>	27280103
<b>ECLASS 12.0</b>	27280103
<b>ETIM 5.0</b>	EC002550
<b>ETIM 6.0</b>	EC002550
<b>ETIM 7.0</b>	EC002999
<b>ETIM 8.0</b>	EC002999
<b>UNSPSC 16.0901</b>	43211701

### Dimensional drawing

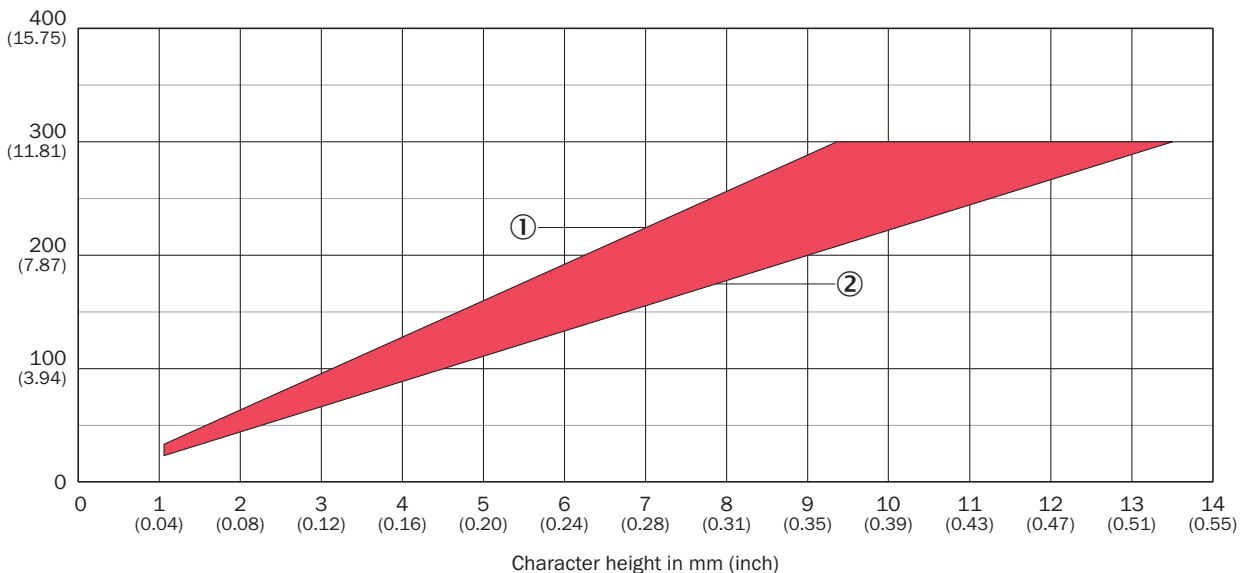


Dimensions in mm (inch)

- ① M5 blind tapped holes, 5 mm deep (4 x), for mounting the sensor
- ② “Ethernet” connection, 4-pin M12 female connector, D-coded
- ③ “Power/Serial Data/CAN/I/O” connection, 17-pin M12 male connector, A-coded
- ④ Sliding nut M5, 5 mm deep (2 x), for mounting (as alternative)
- ⑤ swivel connector unit
- ⑥ Reading field
- ⑦ Function button (2 x)
- ⑧ Bar graph display
- ⑨ LEDs for status display (2 levels), 5 x
- ⑩ Cover (flap)
- ⑪ “Micro USB” connection
- ⑫ Slot for microSD memory card
- ⑬ LED for microSD memory card

Reading field diagram OCR

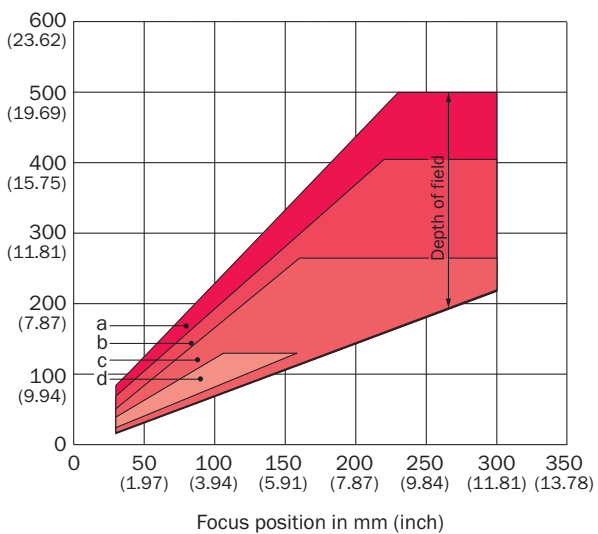
Working distance in mm (inch)



- ① Maximum distance
- ② Minimum distance

Reading field diagram

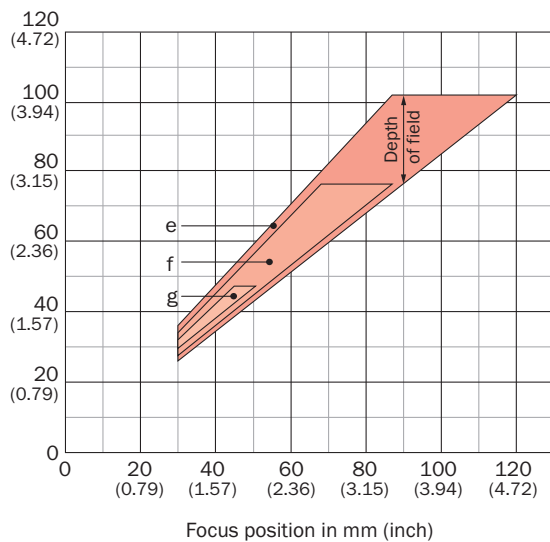
Working distance in mm (inch)



Resolution

- a: 1.00 mm (39.4 mil)
- b: 0.75 mm (29.5 mil)
- c: 0.50 mm (19.7 mil)
- d: 0.25 mm (9.8 mil)

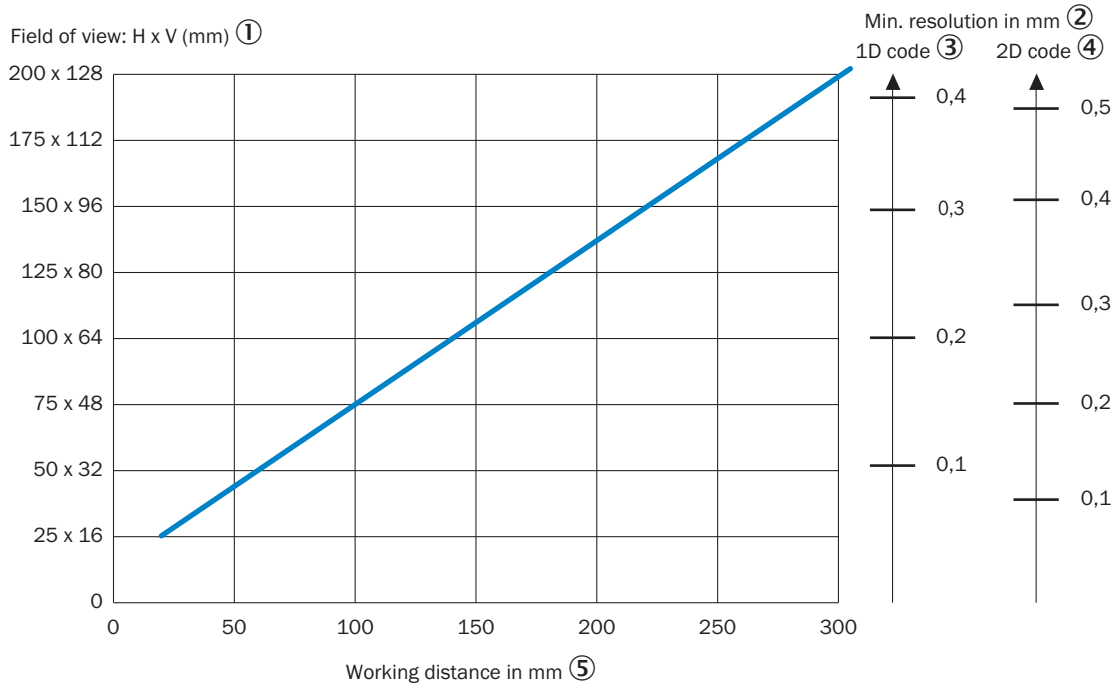
Working distance in mm (inch)



Resolution

- e: 0.20 mm (7.9 mil)
- f: 0.15 mm (5.9 mil)
- g: 0.10 mm (3.9 mil)




Field of view






- ① Field of view: Horizontal x vertical in mm
- ② Minimum resolution in mm
- ③ 1D code
- ④ 2D code
- ⑤ Working distance in mm (inch)

Recommended accessories

Other models and accessories → [www.sick.com/Lector62x](http://www.sick.com/Lector62x)

	Brief description	Type	part no.
<b>Mounting systems</b>			
	<ul style="list-style-type: none"> <li><b>Description:</b> Bracket with adapter board</li> </ul>	Mounting bracket	2042902
<b>network devices</b>			
		CDF600-2100	1058965
		CDF600-2103	1058966

	Brief description	Type	part no.
connectors and cables			
	<ul style="list-style-type: none"> <li>• <b>Description:</b> USB 2.0, unshielded</li> <li>• <b>Connection type head A:</b> Male connector, Micro-B, 4-pin, straight</li> <li>• <b>Connection type head B:</b> Male connector, USB-A, 4-pin, straight</li> <li>• <b>Signal type:</b> USB 2.0</li> <li>• <b>Cable:</b> 2 m, 4-wire</li> </ul>	YMUSA4-020VG4MUIA4	6036106
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Male connector, M12, 4-pin, straight, D-coded</li> <li>• <b>Connection type head B:</b> Male connector, RJ45, 4-pin, straight</li> <li>• <b>Signal type:</b> Ethernet, PROFINET</li> <li>• <b>Cable:</b> 2 m, 4-wire, PUR, halogen-free</li> <li>• <b>Description:</b> Ethernet, shielded, PROFINET</li> <li>• <b>Application:</b> Drag chain operation, Zones with oils and lubricants</li> </ul>	YM2D24-020P-N1MRJA4	2106182
Junction boxes			
		CDB620-001	1042256

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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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