



DATA SHEET

ICR620S-T16503 Professional

Lector62x
Image-based code readers

SICK

Sensor Intelligence



IMAGE-BASED CODE READERS

ICR620S-T16503
Professional

ORDERING INFORMATION

Type	part no.
ICR620S-T16503 Professional	1058623

Further device versions and accessories at www.sick.com/Lector62x



DETAILED TECHNICAL DATA

FEATURES

Variant	Complete device
Optical focus	Teach auto focus
Sensor	CMOS monochrome
Sensor resolution	752 px x 480 px (WVGA)
Illumination	Integrated
Illumination color	Infrared, LED, invisible, 850 nm, ± 25 nm
LED class	0 (IEC 62471:2006-07, EN 62471:2008-09)
Alignment aid	LED, Red, 630 nm ... 680 nm
Laser class	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)
Lens	
Focal length	7 mm
Scanning frequency	60 Hz, WVGA resolution
Code resolution	≥ 0.1 mm ¹⁾
Working range	40 mm ... 1,500 mm ²⁾

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

²⁾ For details see reading field diagram.

MECHANICS/ELECTRONICS

Connection type	1 x M12, 17-pin male connector 1 x M12, 4-pin Ethernet female connector Circular plug-in connector
Supply voltage	10 V DC ... 30 V DC
Power consumption	Typ. 3 W
Output current	≤ 100 mA
Housing material	Aluminum die cast

¹⁾ Swivel connector is 17.8 mm longer.

Housing color	Light blue (RAL 5012)
Window material	Glass
Enclosure rating	IP65 (EN 60529 (1991-10), EN 60529/A2 (2002-02))
Protection class	III
Electrical safety	EN 60950-1 (2006-04) / EN 60950-1/A11 (2009-03)
Weight	170 g
Dimensions (L x W x H)	71 mm x 43 mm x 35.6 mm ¹⁾
MTBF	75,000 h

¹⁾ Swivel connector is 17.8 mm longer.

PERFORMANCE

Readable code structures	1D codes, Stacked, 2D codes
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
2D code types	Data Matrix ECC200, GS1 Data-Matrix, PDF417, PDF417 Truncated, QR code
Code qualification	On the basis of ISO/IEC 16022, ISO/IEC 15415, ISO/IEC 15416, ISO/IEC 18004
No. of codes per reading interval	1 ... 50
No. of characters per reading interval	500 (for multiplexer function in CAN operation)
Internal image storage	135 MB
Transport speed	4 m/s

INTERFACES

Ethernet	Function	✓, TCP/IP
	Data transmission rate	Data interface (read result output), Service interface, OPC DA Server, FTP (image transmission) 10/100 MBit/s
PROFINET	Function	✓
	Data transmission rate	PROFINET Single Port, PROFINET Dual Port (optional via external connection module CDF600-2) 10/100 MBit/s
EtherNet/IP™	Function	✓
	Data transmission rate	10/100 MBit/s
EtherCAT®	Function	✓
	Type of fieldbus integration	Optional over external fieldbus module CDF600
Serial	Function	✓, RS-232, RS-422
	Data transmission rate	Data interface (read result output), Service interface 0.3 kBaud ... 115.2 kBaud, AUX: 57.6 kBaud (RS-232)
CAN	Function	✓
	Data transmission rate	SICK CAN sensor network CSN (CAN controller/CAN device, multiplexer/server) 20 kbit/s ... 1 Mbit/s
CANopen	Function	✓
	Data transmission rate	20 kbit/s ... 1 Mbit/s
PROFIBUS DP	Function	✓
	Type of fieldbus integration	Optional over external fieldbus module CDF600-2
Digital inputs		4 ("Sensor 1", "Sensor 2", 2 inputs via optional parameter storage CMC600 in CDB620/CDM420)
Digital outputs		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)
Reading pulse		Digital inputs, non-powered, serial interface, Ethernet, CAN, auto pulse, presentation mode
Optical indicators		16 LEDs (5 x status display, 10 x LED bar graph, 1 green feedback spot)
Acoustic indicators		Beeper/buzzer (can be switched off, can be assigned a function to signal a result)
Control elements		2 buttons (choose and start/stop functions)
Operator interfaces		Web server
Configuration software		SOPAS ET
Memory card		Micro SD memory card (flash card) max. 32 GB, optional

Data storage and retrieval	Image and data storage via microSD memory card and external FTP
EncoderFrequency	Max. 300 Hz
External illumination control	Via digital output (max. 24 V trigger)

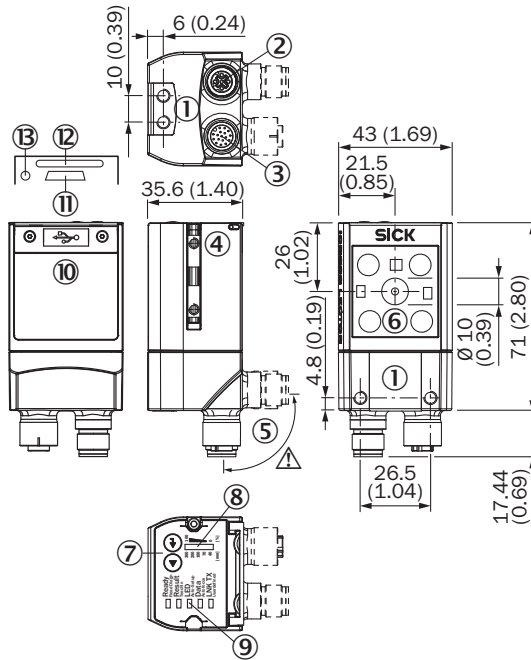
AMBIENT DATA

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

CERTIFICATES

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
China RoHS	✓
KC Mark certificate	✓
Profinet certificate	✓
BIS registration	✓

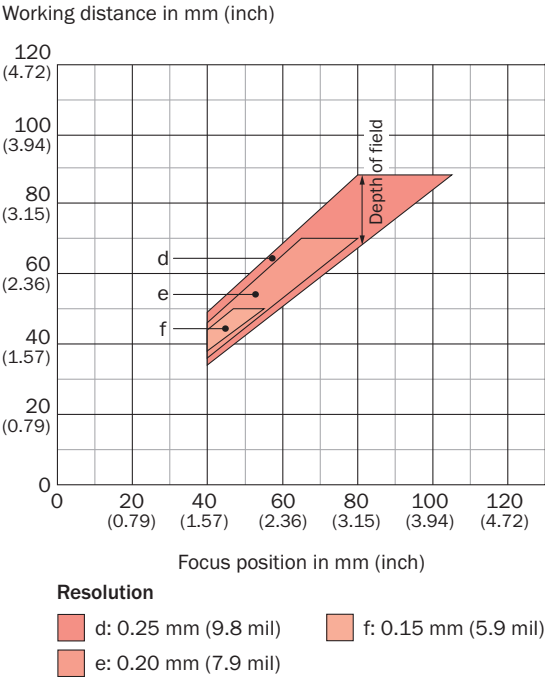
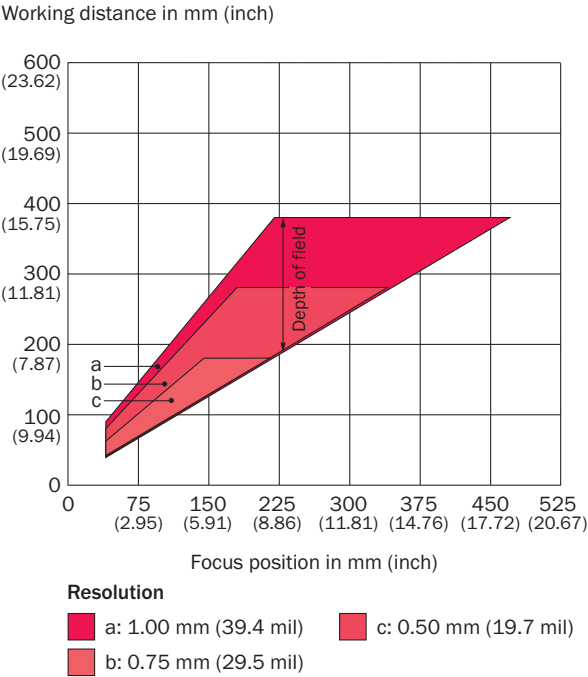
DIMENSIONAL DRAWING



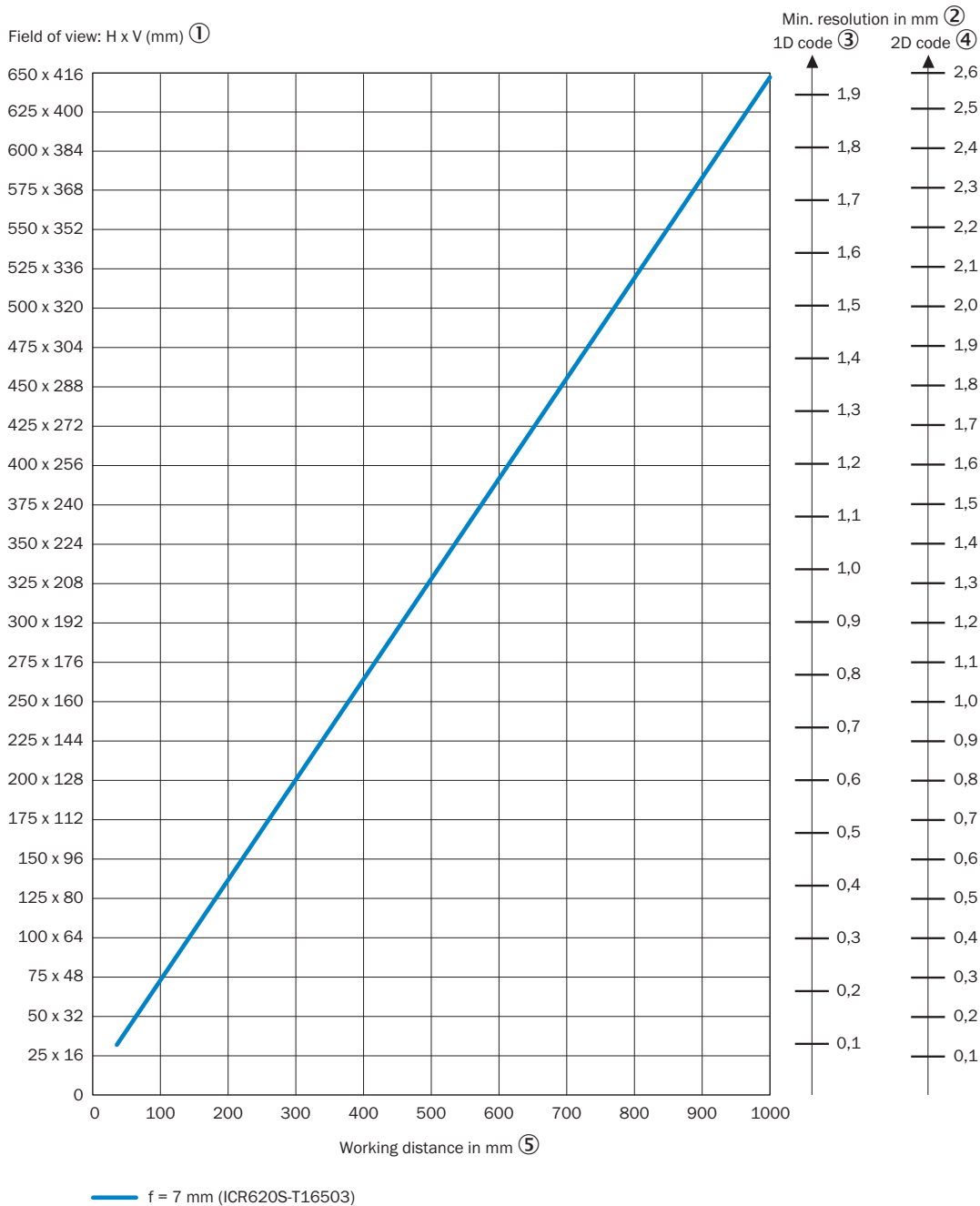
Dimensions in mm (inch)

- 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



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)

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/1058623



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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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