



Image-based code readers
Lector®62x / Lector®620 Professional

ICR620S-T11504 Professional



Model Name > [ICR620S-T11504 Professional](#)
Part No. > [1054375](#)

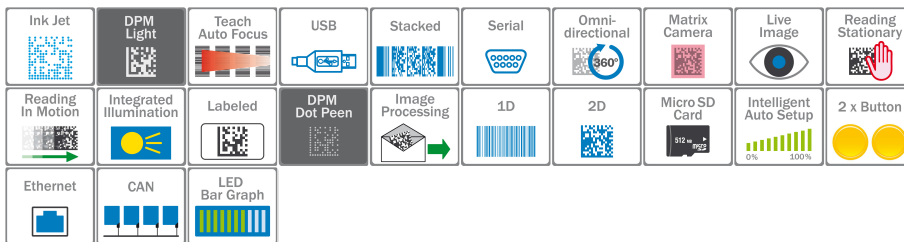


At a glance

- Decoding of all common 1D, 2D, and stacked codes, as well as optical character recognition (depending on type)
- Flexible interfaces: serial interface, USB, and Ethernet
- Function buttons, aiming laser, focus adjustment, auto-setup, and green feedback LED
- Industrial, compact housing with swivel connector
- MicroSD memory card for storing images and backup copies of parameters

Your benefits

- Intelligent decoding algorithms ensure optimal reading performance, good read rates, and high throughput
- 4Dpro facilitates quick and easy integration into many industrial networks
- Intuitive setup with aiming laser, focus adjustment, and auto-setup reduces training and installation time and costs
- Simple mounting thanks to a compact housing and swivel connector, even when space is limited
- Quick and efficient analysis of reading performance and code quality
- Cloning systems create backup copies of parameters, ensuring short machine downtimes in the event of malfunctions
- Proven SICK LifeTime Services



Features

Reading field:	Side
Focus:	Teach auto focus
Sensor:	CMOS matrix sensor, gray scale values
Sensor resolution:	752 px x 480 px (WVGA)
Focal length:	7 mm
Code resolution:	≥0.1 mm ¹⁾
Reading distance::	40 mm ... 1,500 mm ^{2) 3)}
Scanning frequency:	60 Hz, WVGA resolution
Internal lighting:	Blue, Red

Light source:	Lighting LEDs: visible red light ($\lambda = 617 \pm 15 \text{ nm}$), visible blue light ($\lambda = 470 \pm 15 \text{ nm}$) feedback spot: visible green light ($\lambda = 525 \pm 15 \text{ nm}$) Aiming laser: visible red light ($\lambda = 630 \text{ nm} \dots 680 \text{ nm}$)
Laser class:	1 (IEC 60825-1 (2007-3)), complies with 21 CFR 1040.10 except for the tolerance according to "Laser Notice No. 50" from June 24, 2007
LED class:	1 (IEC 62471 (2006-07) / EN 62471 (2008-09)), radiance $L_{\text{v}} < 10 \text{ kW}/(\text{m}^2\text{sr})$ within 100 s, $L_{\text{R}} < 28/\alpha \text{ kW}/(\text{m}^2\text{sr})$ within 10 s at distance $> 200 \text{ mm}$
MTBF:	75,000 h

1) 2) Valid for Data Matrix, PDF417 and 1D codes with good printing quality 3) For details see reading field diagram

Performance

Bar code types:	Interleaved 2 of 5, Codabar, Code 128, Code 32, Code 39, Code 93, GS1 DataBar, GS1-128/EAN 128, Pharmacode, UPC/GTIN/EAN
2D code types:	Data Matrix ECC200, GS1 Data-Matrix, PDF417, PDF417 Truncated, QR code
No. of codes per reading interval:	1 ... 50
No. of characters per reading interval:	500 (for multiplexer function in CAN operation)
Transport speed:	$\leq 4 \text{ m/s}$
Internal image storage:	135 MB
Code qualification:	On the basis of ISO/IEC 16022, ISO/IEC 15415, ISO/IEC 15416, ISO/IEC 18004

Interfaces

Serial (RS-232, RS-422):	✓
Function (Serial (RS-232, RS-422)):	-
Data transmission rate (Serial (RS-232, RS-422)):	300 Baud ... 115.2 kBaud, AUX: 57.6 kBaud (RS-232)
USB:	✓
Remark (USB):	USB 2.0
Ethernet:	✓
Function (Ethernet):	Host, AUX, image transmission, OPC DA Server
Data transmission rate (Ethernet):	10/100 Mbit
Protocol (Ethernet):	TCP/IP, FTP (image transmission), PROFINET (with special software only), EtherNet/IP, EtherCAT (optional via external connection module CDF600)
CAN bus:	✓
Function (CAN bus):	SICK CAN sensor network (Master/Slave, Multiplexer/Server)
Data transmission rate (CAN bus):	20 kbit/s ... 1 Mbit/s
Protocol (CAN bus):	CANopen, CSN (SICK CAN Sensor Network)
PROFIBUS DP:	✓
Remark (PROFIBUS DP):	Optional via external connection module (CDF600-2)
DeviceNet:	-
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)
Optical indicators:	16 LEDs (5 x status display, 10 x LED bar graph, 1 green feedback spot)
Switching inputs:	4 ("Sensor 1", "Sensor 2", 2 inputs via optional parameter storage CMC600 in CDB620/CDM420)
Switching outputs:	4 ("Result 1", "Result 2", 2 outputs via CMC in CDB620/CDM420 or "Result 1", "Result 2", "Result 3", "Result 4" using the 17-pin cable with open end)
Reading pulse:	Auto pulse, CAN, Ethernet, Non-powered, Presentation mode, Switching inputs, Serial interface
Memory card:	MicroSD memory card (flash card) max. 32 GB, optional

Configuration software: SOPAS ET

Mechanics/electronics

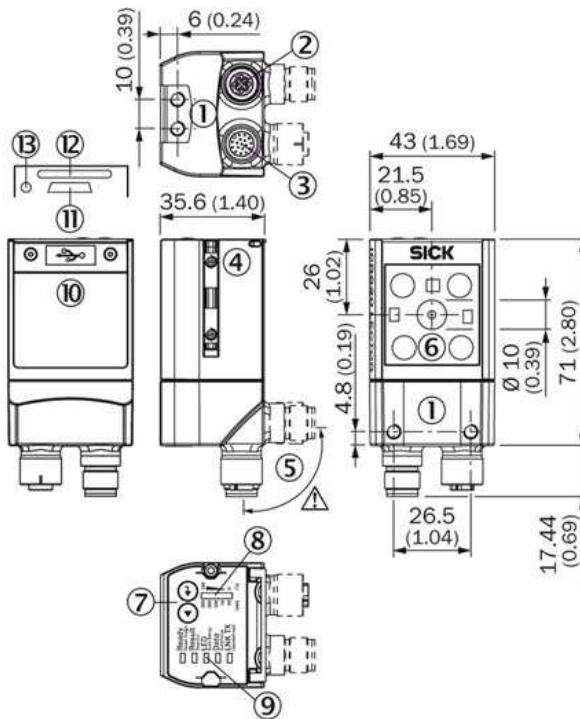
Operating voltage: 10 V DC ... 30 V DC
Power consumption: Typ. 3 W
Electrical connection: 1 x M12, 17-pin male connector, 1 x M12, 4-pin female connector
Ethernet, Circular plug-in connector
Housing: Die-cast aluminum
Housing color: Light blue (RAL 5012)
Weight: 170 g
Dimensions: 71 mm x 43 mm x 35.6 mm ¹⁾
Enclosure rating: IP 67 (EN 60529 (1991-10), EN 60529/A2 (2002-02))
Protection class: III
Lens: 7 mm, integrated

¹⁾ Swivel connector is 17.8 mm longer

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)
Electrical safety: EN 60950-1 (2006-04)/EN 60950-1/A11 (2009-03)
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

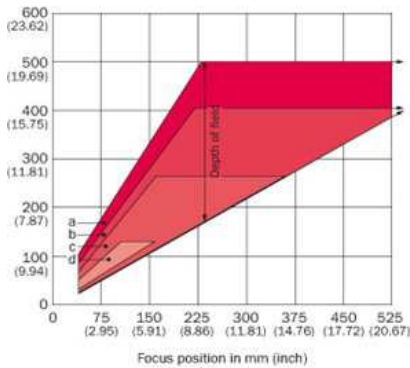
Dimensional drawing



- |1| blind hole thread M5, 5 mm deep (4 x), for mounting
- |2| Ethernet connection
- |3| "Power/Serial Data/CAN/I/O" connection
- |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| LED 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

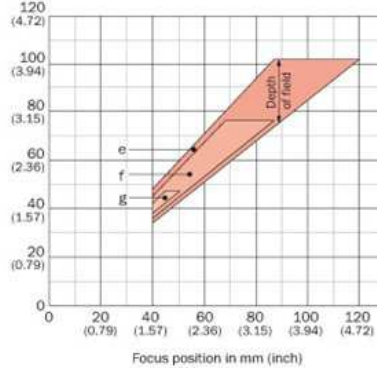
Reading field diagram

Working distance in mm (inch)



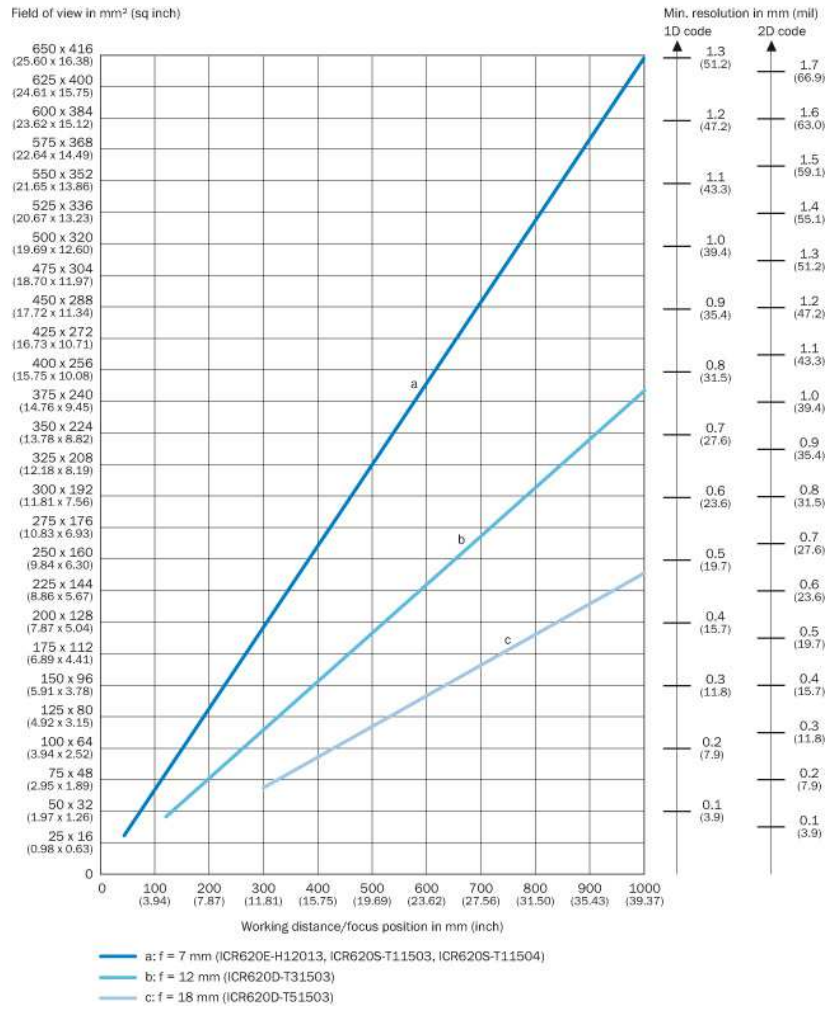
Resolution			
	e: 1.00 mm (39.4 mil)		c: 0.50 mm (19.7 mil)
	b: 0.75 mm (29.5 mil)		d: 0.25 mm (9.8 mil)

Working distance in mm (inch)



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

Field of view



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