



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

ICR620E-H12013 ECO



Model Name > ICR620E-H12013 ECO
Part No. > 1054507



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:	Adjustable focus (electrically)
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:	25 Hz, WVGA resolution
Internal lighting:	Red
Light source:	Lighting LEDs: visible red light (λ = 617 ± 15 nm) feedback spot: visible green light (λ = 525 ± 15 nm)

LED class: 1 (IEC 62471 (2006-07) / EN 62471 (2008-09)), radiance $L_B < 10$ kW/(m²sr) within 100 s, $L_B < 28/\alpha$ kW/(m²sr) within 10 s at distance > 200 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: ≤2 m/s

Internal image storage: 135 MB

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): OPC DA Server

Protocol (Ethernet): PROFINET (optional via external connection module CDM), 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 (CDF)

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 optional parameter storage CMC600 in CDB620/CDM420)

Reading pulse: Auto pulse, CAN, Non-powered, Presentation mode, Switching inputs, Serial interface

Configuration software: SOPAS ET

Mechanics/electronics

Operating voltage: 10 V DC ... 30 V DC

Power consumption: Typ. 3 W

Electrical connection: 1 x 15-pin D-Sub HD male connector (0.9 m)

Housing: Die-cast aluminum

Housing color: Light blue (RAL 5012)

Weight: 170 g

Dimensions: 71 mm x 43 mm x 35.6 mm¹⁾

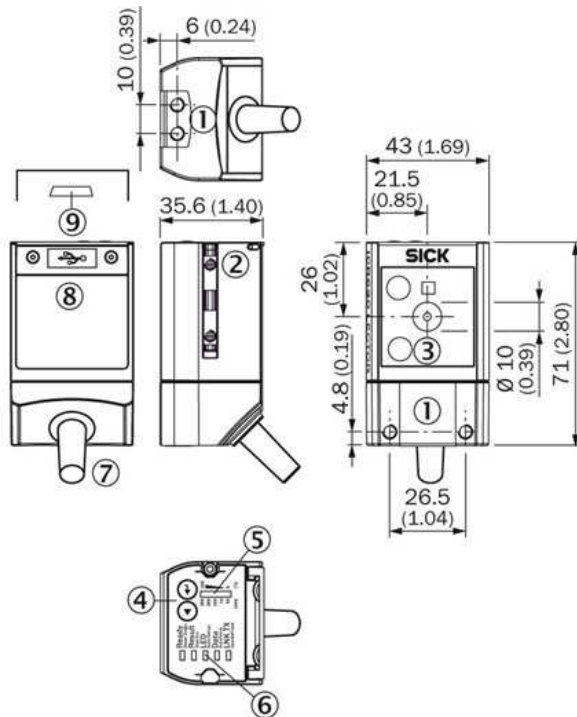
Enclosure rating: IP 65 (EN 60529 (1991-10), EN 60529/A2 (2002-02))
 Protection class: III
 Lens: 7 mm, integrated

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

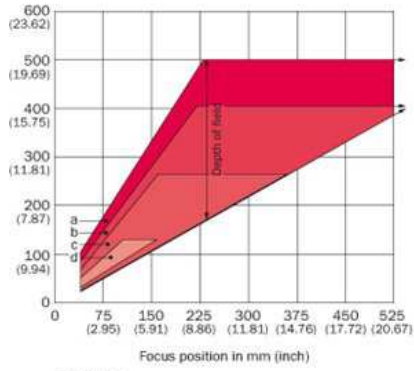
Dimensional drawing



- |1| blind hole thread M5, 5 mm deep (4 x), for mounting
- |2| Sliding nut M5, 5 mm deep (2 x), for mounting (as alternative)
- |3| Reading field
- |4| Function button (2 x)
- |5| Bar graph display
- |6| LED for status display (2 levels), 5 x
- |7| Cable with 15-pin D-sub HD male connector
- |8| Cover (flap)
- |9| "Micro USB" connection

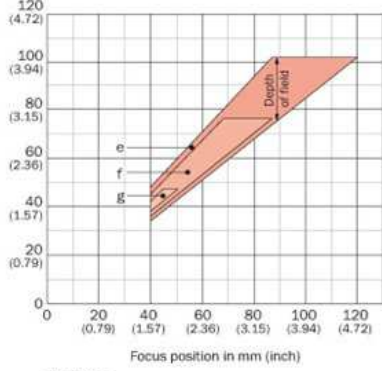
Reading field diagram

Working distance in mm (inch)



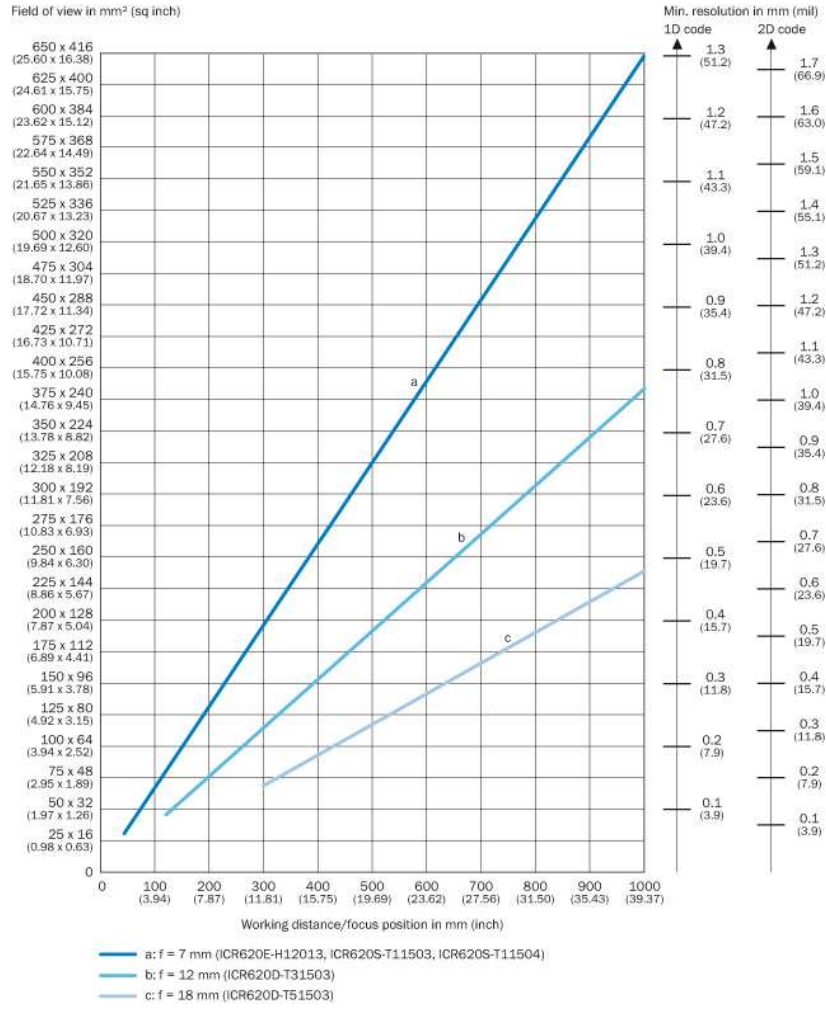
- Resolution**
- a: 1.00 mm (39.4 mil)
 - b: 0.75 mm (29.5 mil)
 - c: 0.50 mm (19.7 mil)
 - d: 0.25 mm (9.8 mil)

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



Australia

Phone +61 3 9457 0600
1800 33 48 02 – tollfree
E-Mail sales@sick.com.au

Belgium/Luxembourg

Phone +32 (0)2 466 55 66
E-Mail info@sick.be

Brasil

Phone +55 11 3215-4900
E-Mail marketing@sick.com.br

Canada

Phone +1 905 771 14 44
E-Mail information@sick.com

Česká republika

Phone +420 2 57 91 18 50
E-Mail sick@sick.cz

China

Phone +86 4000 121 000
E-Mail info.china@sick.net.cn
Phone +852-2153 6300
E-Mail ghk@sick.com.hk

Danmark

Phone +45 45 82 64 00
E-Mail sick@sick.dk

Deutschland

Phone +49 211 5301-301
E-Mail info@sick.de

España

Phone +34 93 480 31 00
E-Mail info@sick.es

France

Phone +33 1 64 62 35 00
E-Mail info@sick.fr

Great Britain

Phone +44 (0)1727 831121
E-Mail info@sick.co.uk

India

Phone +91-22-4033 8333
E-Mail info@sick-india.com

Israel

Phone +972-4-6881000
E-Mail info@sick-sensors.com

Italia

Phone +39 02 27 43 41
E-Mail info@sick.it

Japan

Phone +81 (0)3 5309 2112
E-Mail support@sick.jp

Magyarország

Phone +36 1 371 2680
E-Mail office@sick.hu

Nederland

Phone +31 (0)30 229 25 44
E-Mail info@sick.nl

Norge

Phone +47 67 81 50 00
E-Mail sick@sick.no

Österreich

Phone +43 (0)22 36 62 28 8-0
E-Mail office@sick.at

Polska

Phone +48 22 837 40 50
E-Mail info@sick.pl

România

Phone +40 356 171 120
E-Mail office@sick.ro

Russia

Phone +7-495-775-05-30
E-Mail info@sick.ru

Schweiz

Phone +41 41 619 29 39
E-Mail contact@sick.ch

Singapore

Phone +65 6744 3732
E-Mail sales.gsg@sick.com

Slovenija

Phone +386 (0)1-47 69 990
E-Mail office@sick.si

South Africa

Phone +27 11 472 3733
E-Mail info@sickautomation.co.za

South Korea

Phone +82 2 786 6321/4
E-Mail info@sickkorea.net

Suomi

Phone +358-9-25 15 800
E-Mail sick@sick.fi

Sverige

Phone +46 10 110 10 00
E-Mail info@sick.se

Taiwan

Phone +886 2 2375-6288
E-Mail sales@sick.com.tw

Türkiye

Phone +90 (216) 528 50 00
E-Mail info@sick.com.tr

United Arab Emirates

Phone +971 (0) 4 88 65 878
E-Mail info@sick.ae

USA/México

Phone +1(952) 941-6780
1 (800) 325-7425 – tollfree
E-Mail info@sickusa.com

More representatives and agencies
at www.sick.com