



Image-based code readers  
ICR845-2 / ICR845-2E / Extended Long Range

ICR845-2E0020



**Model Name** > [ICR845-2E0020](#)  
**Part No.** > [1047749](#)



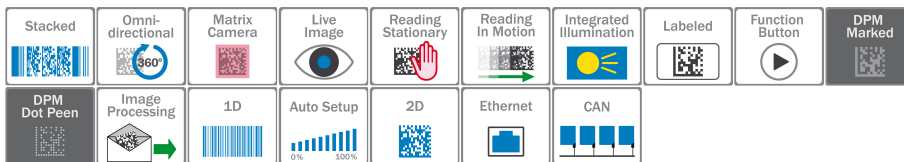
**At a glance**

- Configure with live image and auto setup
- Fast, omni-directional reading of printed and direct marked 1D and 2D codes
- Rapid image and data transfer via Ethernet
- Industrial IP 65 housing for rough environmental conditions (optional IP 65)
- Reliable code reading on stationary and fast moving objects

**Your benefits**

- Robust code identification even at very high transport speeds and speed variances simplify commissioning and increase operational flexibility
- Fast, cost-effective commissioning via easy user interface with live image and auto setup configuration
- High-speed, reliable decoding of low contrast and direct part marked codes guarantees secure identification and flexible use
- Dynamic parameter switching makes decoding different code qualities possible with just one setting
- Omni-directional identification of 1D and 2D codes makes it possible to identify objects that are not aligned
- Industrial IP 65 / IP 67 housing for rough environmental conditions
- Flexible use with integrated, controllable LED illumination

**The product has been discontinued. Please follow the "replacement product" link for information about alternative products.**



**Features**

Version:	Extended Long Range
Reading field:	Front
Focus:	Fixed focus
Focus position:	175 mm
Sensor:	CMOS matrix sensor
Sensor resolution:	752 px x 480 px (WVGA)
Code resolution:	≥0.25 mm <sup>1)</sup>
Reading distance::	115 mm ... 325 mm <sup>2) 3)</sup>
Scanning frequency:	60 Hz, WVGA resolution
Light source:	Visible red light (lighting LEDs, 617 nm, ± 15 nm)

Laser class: 1 (EN 60825-1)

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 39, GS1-128/EAN 128, Pharmacode, UPC/GTIN/EAN

2D code types: Data Matrix ECC200, GS1 Data-Matrix, QR code

No. of codes per scan: 1 ... 50

No. of codes per reading interval: 1 ... 50

No. of characters per reading interval: 4,000

## Interfaces

---

Serial (RS-232): ✓

Function (Serial (RS-232)): Host, AUX

Data transmission rate (Serial (RS-232)): 300 Baud ... 57,600 Baud, AUX: 9,600 Baud

Ethernet: ✓

Function (Ethernet): Host, AUX, image transmission

Data transmission rate (Ethernet): 10/100 Mbit

Protocol (Ethernet): TCP/IP, FTP (image transmission), PROFINET (optional via external connection module CDM)

CAN bus: ✓

Function (CAN bus): SICK CAN sensor network (Master/Slave, Multiplexer)

Data transmission rate (CAN bus): 10 kbit/s ... 1 Mbit/s

Protocol (CAN bus): CANopen, CSN (SICK CAN Sensor Network)

PROFIBUS DP: ✓

Remark (PROFIBUS DP): Optional via external connection module (CDM + CMF)

DeviceNet: ✓

Remark (DeviceNet): Optional via external connection module (CDM + CMF)

Acoustic indicators: Beeper/buzzer (can be switched off, can be assigned a function to signal a result)

Optical indicators: 6 LEDs (status displays)

Switching inputs: 2

Switching outputs: 2 (Result 1 NPN, Result 2 PNP)

Reading pulse: Non-powered, Switching inputs, Serial interface

## Mechanics/electronics

---

Operating voltage: 15 V DC ... 30 V DC

Power consumption: 13 W

Electrical connection: 1 x RJ45 female connector on device, cables with 15-pin D-sub HD male connector (0.9 m, ± 5 %)

Housing: Die-cast zinc

Housing color: Light blue (RAL 5012)

Weight: 900 g, with connecting cable

Dimensions: 112 mm x 80 mm x 39 mm

Enclosure rating: IP 30, IP 65 (EN 60529) <sup>1) 2)</sup>

Protection class: III (EN 61140)

<sup>1)</sup> For installed adapter frame and IP 65 Ethernet cable or for installed adapter frame and IP 65 cover <sup>2)</sup> Without covered Ethernet connection or with standard Ethernet cable.

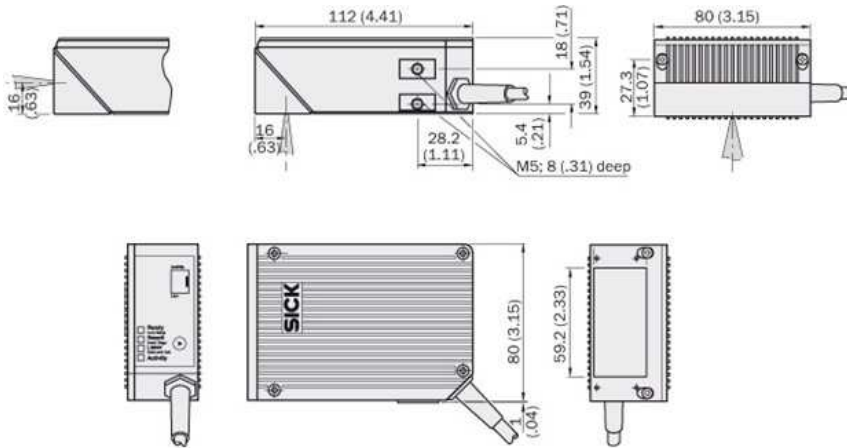
### Ambient data

Electromagnetic compatibility (EMC):	EN 61000-6-2/EN 61000-6-4
Vibration resistance:	EN 60068-2-6
Shock resistance:	EN 60068-2-27
Ambient operating temperature:	0 °C ... +40 °C
Storage temperature:	-20 °C ... +70 °C
Permissible relative humidity:	± 90 %, non-condensing
Ambient light immunity:	2,000 lx, on bar code

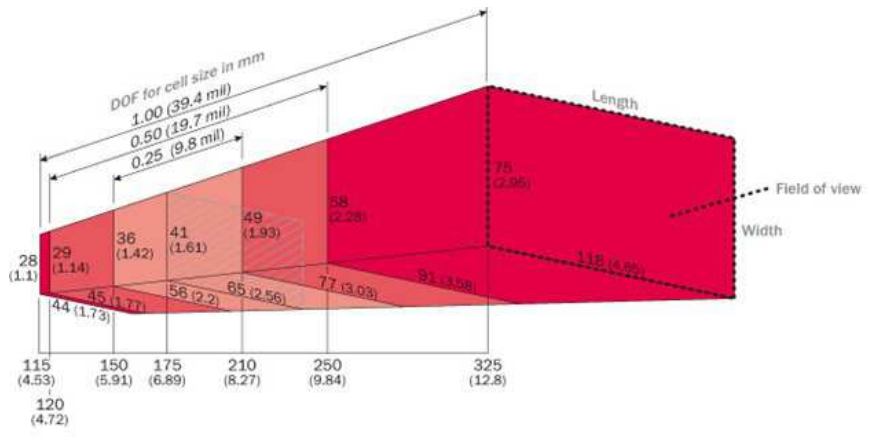
### General notes

Life cycle phase:	Phased out
-------------------	------------

### Dimensional drawing



Reading field diagram



**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](http://www.sick.com)