



# ICR840-2B1020

ICR840-2

IMAGE-BASED CODE READERS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
ICR840-2B1020	1042338

Other models and accessories → [www.sick.com/ICR840-2](http://www.sick.com/ICR840-2)



### Detailed technical data

#### Features

<b>Version</b>	Mid Range
<b>Reading field</b>	Side
<b>Focus</b>	Fixed focus
<b>Focus position</b>	80 mm
<b>Sensor</b>	CMOS Mono
<b>Sensor resolution</b>	1,280 px x 1,024 px (1.3 Mpixel)
<b>Light source</b>	Visible red light (lighting LEDs, 617 nm, ± 15 nm)
<b>MTBF</b>	75,000 h
<b>Laser class</b>	1 (EN 60825-1, IEC 60825-1)
<b>Scanning frequency</b>	25 Hz, With resolution of 1.3 megapixels
<b>Code resolution</b>	≥ 0.1 mm <sup>1)</sup>
<b>Reading distance</b>	50 mm ... 130 mm <sup>1) 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.

#### Performance

<b>Bar code types</b>	GS1-128 / EAN 128, UPC / GTIN / EAN, Interleaved 2 of 5, Pharmacode, Code 39, Code 128, Codabar
<b>2D code types</b>	Data Matrix ECC200, GS1 Data-Matrix, QR code
<b>No. of codes per scan</b>	1 ... 50
<b>No. of codes per reading interval</b>	1 ... 50
<b>No. of characters per reading interval</b>	4,000

#### Interfaces

<b>Ethernet</b>	✓, TCP/IP
Function	Host, AUX
Data transmission rate	10/100 MBit/s
<b>PROFINET</b>	✓

Type of fieldbus integration	Optional, over external connection module CDM
<b>Serial</b>	✓, RS-232
Function	Host, AUX
Data transmission rate	300 Baud ... 57,600 Baud, AUX: 9,600 baud
<b>CAN</b>	✓
Function	SICK CAN sensor network (Master/Slave, Multiplexer)
Data transmission rate	10 kbit/s ... 1 Mbit/s
<b>CANopen</b>	✓
Data transmission rate	10 kbit/s ... 1 Mbit/s
<b>PROFIBUS DP</b>	✓
Type of fieldbus integration	Optional, over external connection module CDM + CMF
<b>DeviceNet™</b>	✓
Type of fieldbus integration	Optional, over external connection module CDM + CMF
<b>Switching inputs</b>	2
<b>Switching outputs</b>	2 (Result 1 NPN, Result 2 PNP)
<b>Reading pulse</b>	Switching inputs, non-powered, serial interface
<b>Optical indicators</b>	6 LEDs (status displays)
<b>Acoustic indicators</b>	Beeper/buzzer (can be switched off, can be assigned a function to signal a result)

## Mechanics/electronics

<b>Electrical connection</b>	1 x RJ45 female connector on the device, cables with 15-pin D-Sub HD male connector (0.9 m, ± 5%)
<b>Operating voltage</b>	15 V DC ... 30 V DC
<b>Power consumption</b>	13 W
<b>Housing</b>	Die-cast zinc
<b>Housing color</b>	Light blue (RAL 5012)
<b>Enclosure rating</b>	IP65 (EN 60529) <sup>1)</sup> IP30 <sup>2)</sup>
<b>Protection class</b>	III (EN 61140)
<b>Weight</b>	900 g, with connecting cable
<b>Dimensions (L x W x H)</b>	112 mm x 80 mm x 39 mm

<sup>1)</sup> For installed adapter frame and IP65 Ethernet cable or for installed adapter frame and IP65 cover.

<sup>2)</sup> Without covered Ethernet connection or with standard Ethernet cable.

## Ambient data

<b>Electromagnetic compatibility (EMC)</b>	EN 61000-6-2 / EN 61000-6-4
<b>Vibration resistance</b>	EN 60068-2-6
<b>Shock resistance</b>	EN 60068-2-27
<b>Ambient operating temperature</b>	0 °C ... +40 °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 bar code

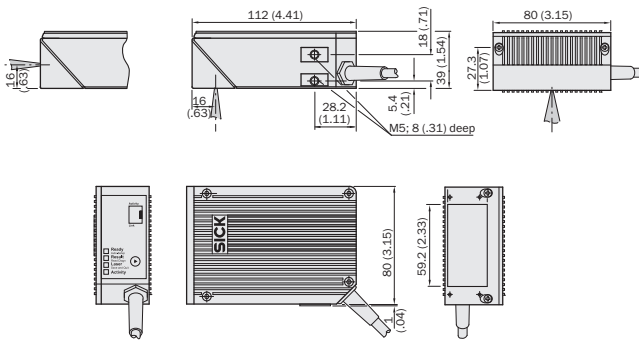
## Classifications

<b>ECI@ss 5.0</b>	27280103
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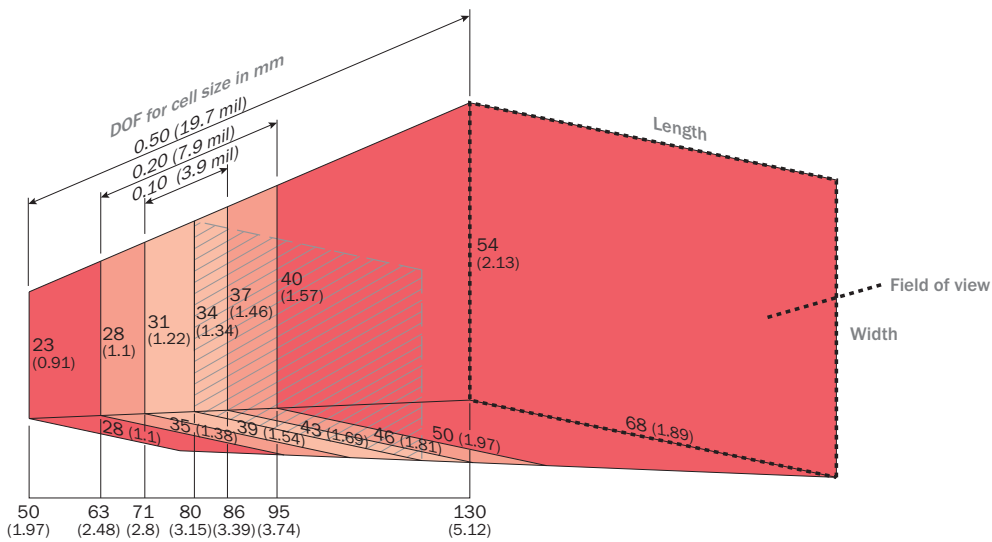
<b>ECl@ss 5.1.4</b>	27280103
<b>ECl@ss 6.0</b>	27280103
<b>ECl@ss 6.2</b>	27280103
<b>ECl@ss 7.0</b>	27280103
<b>ECl@ss 8.0</b>	27280103
<b>ECl@ss 8.1</b>	27280103
<b>ECl@ss 9.0</b>	27280103
<b>ETIM 5.0</b>	EC002550
<b>ETIM 6.0</b>	EC002550
<b>UNSPSC 16.0901</b>	43211701

### Dimensional drawing (Dimensions in mm (inch))

ICR840-2, ICR845-2








### Reading field diagram



## Recommended accessories

Other models and accessories → [www.sick.com/ICR840-2](http://www.sick.com/ICR840-2)

	Brief description	Further accessories	Type	Part no.
<b>Mounting brackets and plates</b>				
	Mounting bracket, adjustable skew angle, mounting hardware included		Mounting bracket	2039465
<b>Plug connectors and cables</b>				
	Head A: male connector, RJ45 Head B: male connector, RJ45 Cable: Ethernet, unshielded, 3 m		Ethernet crossover cable	6026084
	Head A: male connector, RJ45, 4-pin Head B: male connector, RJ45, 4-pin Cable: Ethernet, unshielded Ethernet connection possible when screw-mounted		Ethernet patch cable (male connector-male connector)	2039986
	Small connection module for one sensor, 4 cable glands, base for CMC600	Modules	CDB620-001	1042256
	Modular connection module for one sensor		CDM420-0001	1025362

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

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.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)