

ICR852-2A1020

ICR85x-2

IMAGE-BASED CODE READERS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
ICR852-2A1020	1042900

Other models and accessories → www.sick.com/ICR85x-2



Detailed technical data

Features

Version	High Density
Reading field	Side
Focus	Fixed focus
Focus position	60 mm
Sensor	CCD line-scan camera
Sensor resolution	2,048 px
Light source	Laser diode (visible red light, 650 nm)
MTBF	20,000 h
Laser class	2 (EN 60825-1, IEC 60825-1)
Scanning frequency	13 Hz ... 15 kHz
Code resolution	≥ 0.1 mm ¹⁾
Reading distance	57.5 mm ... 63.5 mm ^{1) 2)}

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

²⁾ For details see reading field diagram.

Performance

Bar code types	GS1-128 / EAN 128, UPC / GTIN / EAN, Interleaved 2 of 5, Pharmacode, Code 39, Code 128, Codabar
2D code types	Data Matrix ECC200, QR code, GS1 Data-Matrix
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	✓ Host, AUX
	Data transmission rate	300 Baud ... 57,600 Baud, AUX: 9,600 baud
Ethernet	Function	✓ Host, AUX, image transmission
	Data transmission rate	10/100 MBit/s

	Protocol	TCP/IP, FTP (image transmission)
CAN bus		✓
	Function	SICK CAN sensor network (Master/Slave, Multiplexer)
	Data transmission rate	10 kbit/s ... 1 Mbit/s
	Protocol	CANopen, CSN (SICK CAN Sensor Network)
PROFIBUS DP		✓, optional via external connection module (CDM + CMF)
DeviceNet		✓, optional via external connection module (CDM + CMF)
Switching inputs		2 ("Sensor 1", "Sensor 2")
Switching outputs		2 ("Result 1", "Result 2")
Reading pulse		Switching inputs, non-powered, serial interface
Optical indicators		4 LEDs (status displays)
Acoustic indicators		Beeper/buzzer (can be switched off, can be assigned functions to signal the result status 0.25 ... 2 mm)

Mechanics/electronics

Electrical connection	1 x RJ45 female connector on the device, cables with 15-pin D-Sub HD male connector (0.9 m, ± 5%)
Operating voltage	10 V DC ... 30 V DC
Power consumption	11 W
Housing	Die-cast zinc
Housing color	Light blue (RAL 5012)
Enclosure rating	IP 65 (EN 60529) ¹⁾ IP 30 ²⁾
Protection class	III (EN 61140)
Weight	900 g, with connecting cable
Dimensions (L x W x H)	114.6 mm x 80 mm x 39 mm

¹⁾ For installed adapter frame and IP 65 Ethernet cable or for installed adapter frame and IP 65 cover.

²⁾ Without covered Ethernet connection or with standard Ethernet cable.

Ambient data

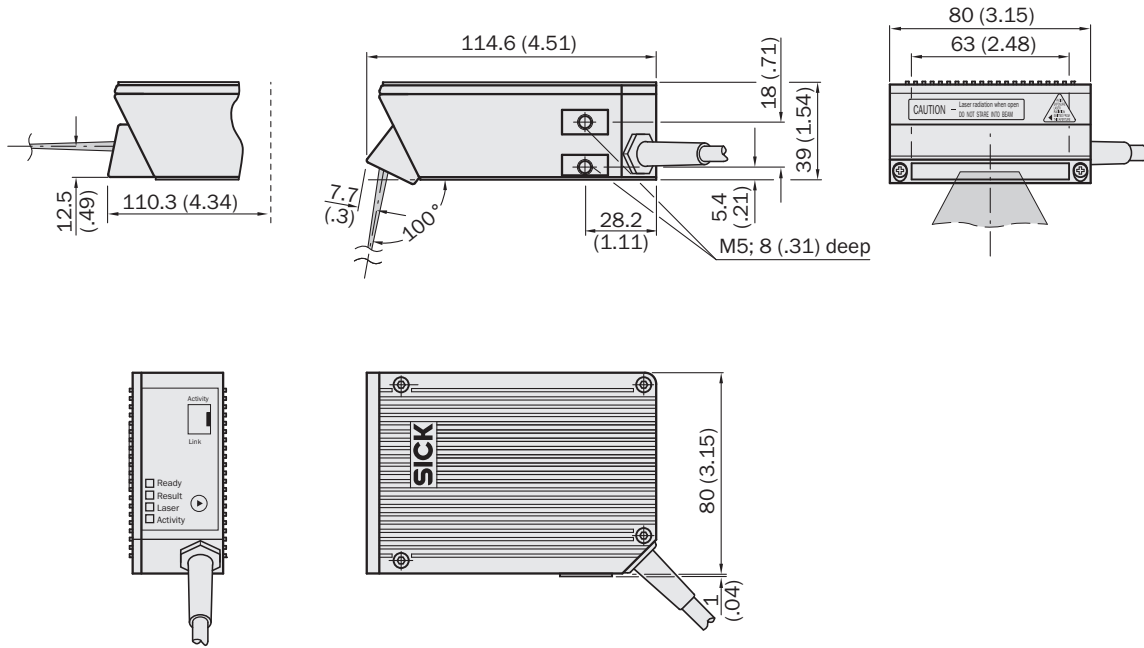
Electromagnetic compatibility (EMC)	EN 61000-6-2 / EN 61000-6-4
Vibration resistance	EN 60068-2-6
Shock resistance	EN 60068-2-27
Ambient operating temperature	0 °C ... +40 °C
Storage temperature	-20 °C ... +70 °C
Permissible relative humidity	± 90 %, Non-condensing
Ambient light immunity	2,000 lx, on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

General notes

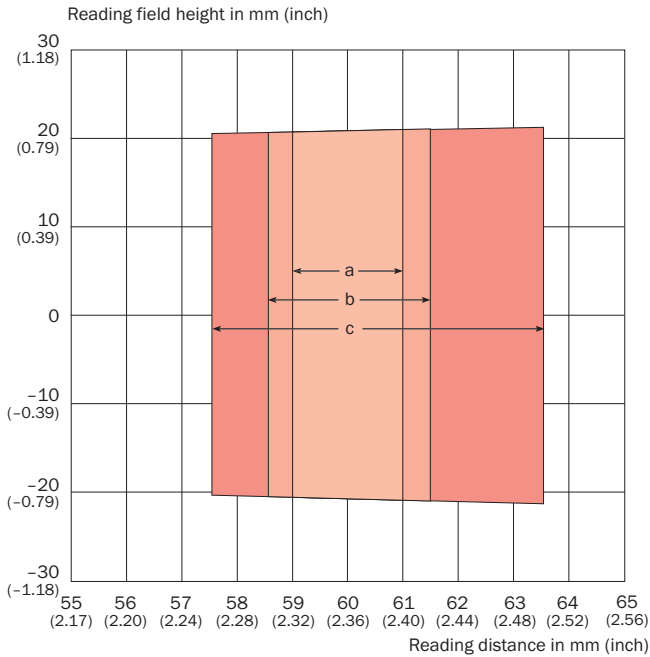
Life cycle phase	Discontinued
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Dimensional drawing (Dimensions in mm (inch))

ICR85x-2



Reading field diagram






Resolution:

- a: 0.10 mm (3.9 mil)
- b: 0.15 mm (5.9 mil)
- c: 0.25 mm (9.8 mil)

Recommended accessories

Other models and accessories → www.sick.com/ICR85x-2

	Brief description	Type	Part no.
Mounting brackets and mounting plates			
	Mounting bracket, adjustable skew angle, mounting hardware included	Mounting bracket	2039465
Modules			
	Small connection module for one sensor, 4 cable glands, base for CMC600	CDB620-001	1042256
	Modular connection module for one sensor	CDM420-0001	1025362
Plug connectors and cables			
	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

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