



Image-based code readers ICR85x-2 / ICR850-2B / Standard Range

ICR850-2B1020



Model Name > [ICR850-2B1020](#)
Part No. > [1042341](#)



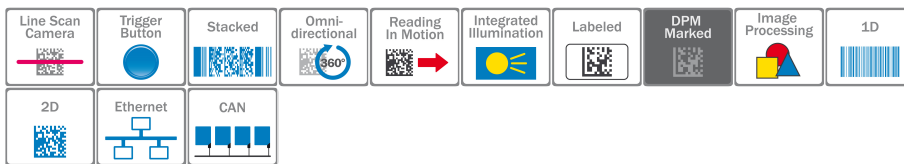
At a glance

- Identification of 0.2 mm resolution codes on a wide reading field height of 80 mm
- Omni-directional identification of up to 50 codes, e.g., circuit board with multiple codes
- Easy trigger handling, codes are identified on-the-fly
- Large reading field
- High-speed reader
- High resolution

Your benefits

- Large field of view captures codes in different positions without having to adjust the mounting of the reader
- High-speed, reliable decoding of low contrast, direct part marked codes, even on moving objects
- Reads codes in real-time without stopping the conveyor, increasing throughput
- Industrial IP 65 / IP 67 housing for rough environmental conditions
- Easy configuration via graphical user interface, saves time
- Omni-directional identification of 1D and 2D codes makes it possible to identify objects that are not aligned
- A wide variety of resolutions and reading distances provide a solution for any application

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



Features

Version:	Standard Range
Reading field:	Side
Focus:	Fixed focus
Focus position:	100 mm
Sensor:	CCD line camera
Sensor resolution:	2,048 px
Code resolution:	≥0.2 mm ¹⁾

Reading distance (at code resolution):	89 mm ... 111 mm (0.5 mm) ²⁾
Reading field (at distance):	80 mm (100 mm)
Scanning frequency:	13 Hz ... 15 kHz
Light source:	Laser diode (visible red light, 650 nm)
Laser class:	2 (EN 60825-1)
MTBF:	20,000 h

1) 2)
Valid for Data Matrix, PDF417 and 1D codes with good printing quality

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)
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)
PROFINET:	-
DeviceNet:	✓
Remark (DeviceNet):	Optional via external connection module (CDM + CMF)
Acoustic indicators:	Beeper/buzzer (can be switched off, can be assigned functions to signal the result status 0.25 ... 2 mm)
Optical indicators:	4 LEDs (status displays)
Switching inputs:	2 ("Sensor 1", "Sensor 2")
Switching outputs:	2 ("Result 1", "Result 2")
Reading pulse:	Non-powered, Switching inputs, Serial interface

Mechanics/electronics

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

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

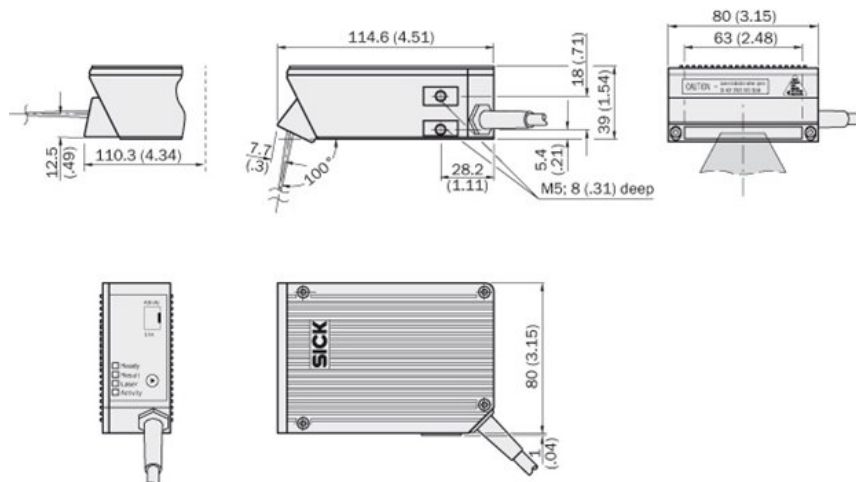
Ambient data

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 safety:	2,000 lx, on bar code

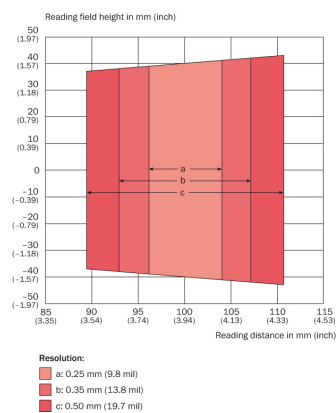
General notes

Life cycle phase:	Phased out
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Dimensional drawing



Reading field diagram



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