



Image-based code readers ICR840-2 / ICR840-2A / High Density

ICR840-2A0020



Model Name > [ICR840-2A0020](#)
Part No. > [1042896](#)

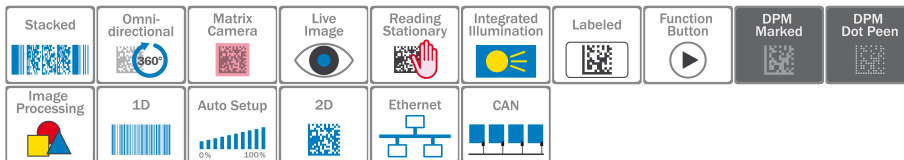


At a glance

- 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
- Reliable reading of codes on stationary objects

Your benefits

- 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
- A wide variety of resolutions and reading distances provide a solution for any application
- Industrial IP 65 / IP 67 housing for rough environmental conditions
- Flexible use with integrated, controllable LED illumination
- Automated configuration for batch changes



Features

Version:	High Density
Reading field:	Front
Focus:	Fixed focus
Focus position:	50 mm
Sensor:	CMOS matrix sensor
Sensor resolution:	1,280 px x 1,024 px (1.3 Mpixel
Code resolution:	≥0.1 mm ¹⁾
Reading distance (at code resolution):	43 mm ... 62 mm (0.2 mm) ²⁾
Reading field (at distance):	26 mm x 21 mm (50 mm)
Scanning frequency:	25 Hz, at 1.3 megapixels 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

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

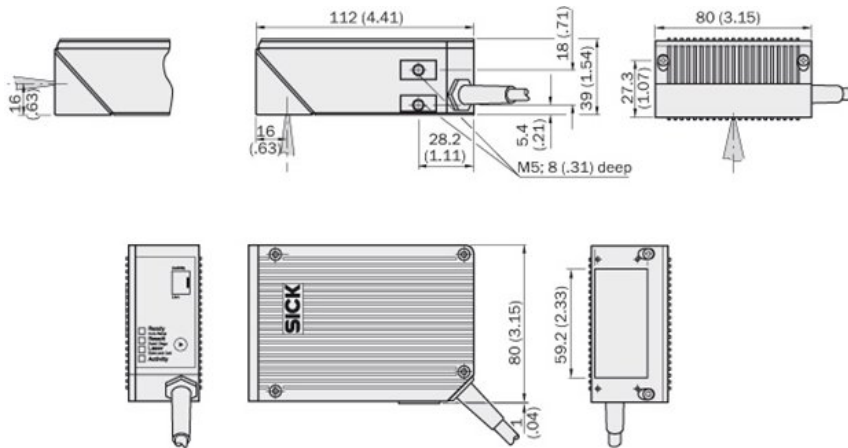
Operating voltage:	15 V DC ... 30 V DC
Power consumption:	13 W
Electrical connection:	1 RJ45 socket on device, cables with 15-pin D-sub HD plug (0.9 m, ± 5 %)
Housing:	Die-cast zinc
Housing color:	Light blue (RAL 5012)
Weight:	900 g, with connecting cable
Dimensions:	112 mm x 80 mm x 39 mm
Enclosure 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
2) Without covered Ethernet connection or with standard Ethernet cable.

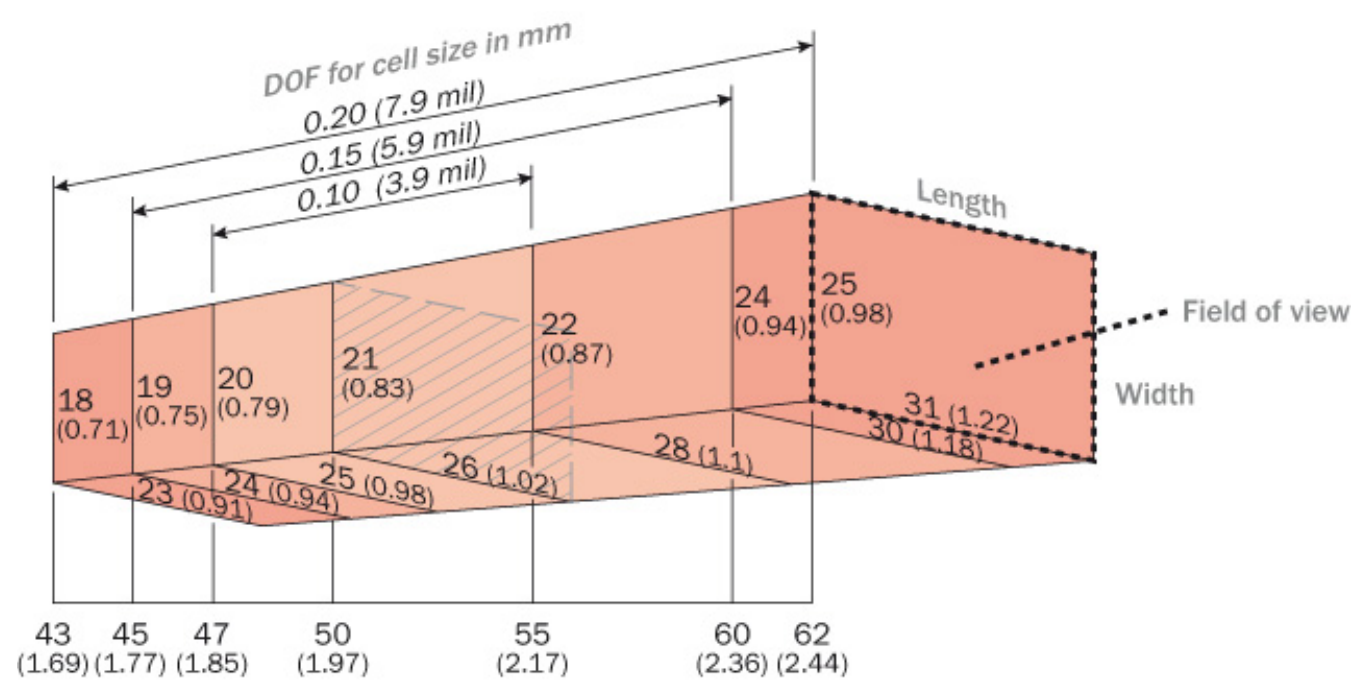
Ambient data

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

Dimensional drawing



Reading field diagram



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