PRODUCT INFORMATION

2D-Code Reader ICR 85x

The start of a new area

An intelligent technology wins through

The ICR 85x is a pioneer of Auto Ident technology in the future.
Soon 2D-codes will supplement or even replace bar codes in a lot of applications. A highly sophisticated sensor concept makes it now possible to read bar codes and 2D-codes at the same time without problems by adding the 2D-technology into existing or new assembly lines.
As a compact sensor the ICR 85x has an integrated illumination in a very small housing.
High level processor architecture builds the basis for a maximum of decoding and computing performance even in low contrast applications.
The ICR 85x sensor concept implements a maximum of compatibility to previous SICK bar code reading systems referring to easy adjustment of parameters to application requirements.

Benefits:

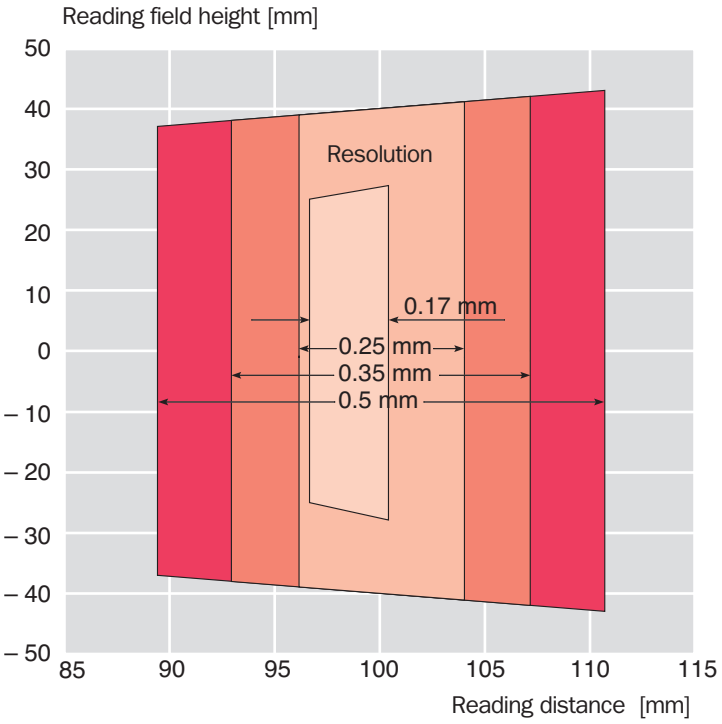
- Reduced costs due to an integrated sensor concept
- Decoding of bar codes and 2D-codes at the same time using one sensor with one adjustment
- Easy adjustment of the parameters with a reliable HMI
- Easy to include the 2D-technology in existing assembly lines using the trigger handling of well-known SICK bar code scanners

ICR 85x at a glance:

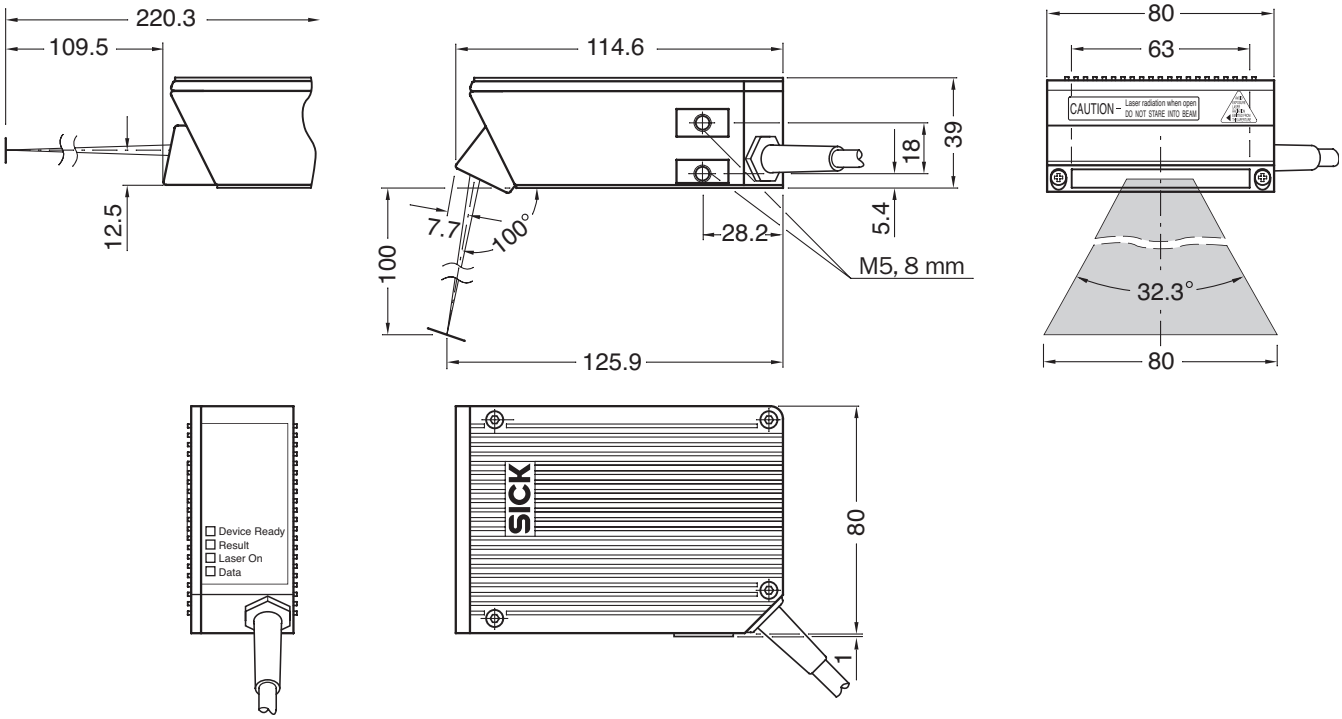
- Wide image field of 83 mm
- Scanning frequency of 15 kHz allows high object velocity
- Resolution of up to 0.17 mm allows even the smallest codes to be read
- Integrated laser illumination generates a maximum security against ambient light
- Ethernet Interface for forward looking network concept
- CAN bus compatible

SICK

Reading diagram (preliminary)



ICR 850-0010
ICR 850-1010
ICR 850-0020
ICR 850-1020



Technical data

Type	ICR 85x
Reading window	front, optional: side
Laser diode (wavelength)	red light (λ = 650 nm)
Service live of laser diode	MTBF 20,000 h
Laser class	Class 2 pursuant to DIN EN 60825-1
Scanning frequency	max. 15 kHz
Resolution	0.17 mm ... 0.5 mm
Code print contrast (PCS)	≥ 60 %
Immunity to ambient light	2000 lx (on code)
No. of bar codes per scan	1 ... 20 (Standard decoder), 1 ... 6 (SMART decoder)
No. of bar codes per reading intervall	1 ... 50
Bar code types	Code 39, Code 128, Codabar, EAN, EAN 128, UPC, 2/5 Interleaved
Bar code length	max. 50 characters
No. of 2D-codes per scan	1 ... 20
No. of 2D-codes per per reading intervall	1 ... 50
2D-code types	Data Matrix ECC200
2D-code length	to ISO/IEC 16022
Optical indicators	4 x LEDs (status indicator)
Acoustic indicator	Beeper, can be deactivated and assigned to a function for result status indication
Reading pulse	“Sensor 1“ switching input/free running /serial interface
“Host“ data interface	RS 232 or RS 422/485, variable data output format
Data transfer rate	300 ... 57 600 Bits/s
“CAN“ data interface	CANopen protocol, CAN Scanner Network
Data transfer rate	10 kBits/s ... 1 MBits/s
“Ethernet“ data interface (10 MBit/s)	optional
“Aux“ data interface	RS 232, 9 600 Bits/s, 8 data bits, no parity, 1 stoppbit, fixed output format
Switching inputs	2 (“Sensor 1“, “Sensor 2“)
Switching outputs	2 (“Result 1“, “Result 2“)
Electrical connection	15-pin D Sub HD connector, cable length 0.9 m
Operating voltage/power consumption	10 ... 30 V DC/7 W
Housing	Zinc die-cast, does not represent a problem in paint shops
Enclosure rating/protection class	max. IP 65 (to DIN 40 050)/Class 3 (to VDE 0106/IEC 1010-1) for all types without Ethernet interface
EMC/vibration/shock tested	to EN 50081-2, EN 50082-1, EN 61000-6-2/to EN 61010-1/to EN 60068-2-27
Weight	approx. 900 g with connecting cable
Operating/storage temperature	0 ... 40 °C/– 20 ... + 70 °C
Max. relative humidity	90 %, non condensing

Order No.	Type	Description
1 019 580	ICR 850-0010	front reading window, RS 232/422/485, CAN
1 019 602	ICR 850-1010	side reading window, RS 232/422/485, CAN
1 022 583	ICR 850-0020	front reading window, RS 232/422/485, CAN, Ethernet
1 022 585	ICR 850-1020	side reading window, RS 232/422/485, CAN, Ethernet

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