



Part no.: 50137331
DCR 202i FIX-M1-102-R3-H
Stationary 2D-code reader



RS232

RS422

Ethernet

Figure can vary

Contents

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- Dimensioned drawings
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Technical data

Basic data	
Series	DCR 200i
Chip	CMOS
Special design	
Special design	Heating
Functions	
Software functions	Reading of 1D codes Reading of 2D codes
Read data	
Code types, readable	2/5 Interleaved Aztec Codabar Code 128 Code 32 Code 39 Code 93 Data Matrix Code EAN 128 EAN 8/13 GS1 Databar GS1 Databar Omnidirectional GS1 Databar QR code GS1 Databar Stacked PDF417 Pharma Code QR code UPC
Optical data	
Reading distance	50 ... 220 mm
Light source	LED , Red
Transmitted-signal shape	Pulsed
Camera resolution, horizontal	1,280 px
Camera resolution, vertical	960 px
Modulus size	0.19 ... 0.5 mm
Electronic shutter speed	0.068 ... 5 ms
Camera type	Monochrome
Electrical data	
Protective circuit	Polarity reversal protection Short circuit protected
Performance data	
Supply voltage U_B	18 ... 30 V , DC
Average power consumption	12 W
Inputs	
Number of digital switching inputs	1 Piece(s)
Switching inputs	
Voltage type	DC

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Outputs

Number of digital switching outputs 1 Piece(s)

Switching outputs

Voltage type DC

Switching current, max. 100 mA

Switching output 1

Switching element MOSFET semiconductor ,

Switching principle +24 V switching

Inputs/outputs selectable

Number of inputs/outputs selectable 2 Piece(s)

Voltage type, outputs DC

Voltage type, inputs DC

Interface

Type RS 232 , RS 422 , Ethernet

RS 232

Function Process

Transmission speed 4,800 ... 115,200 Bd

Data format Adjustable

Start bit 1

Data bit 8 data bits

Stop bit 1 stop bit

Parity None

Transmission protocol <STX><data><CR><LF>

Data encoding ASCII
Binary

RS 422

Function Process

Transmission speed 4,800 ... 115,200 Bd

Data format Adjustable

Start bit 1

Data bit 7, 8 data bits

Stop bit 1, 2 stop bits

Parity Adjustable

Data encoding ASCII
Binary

Ethernet

Architecture Client
Server

Address assignment DHCP
Manual address assignment

Transmission speed 10 Mbit/s
100 Mbit/s

Function Process

Switch functionality None

Transmission protocol TCP/IP , UDP

Service interface

Type Ethernet

Ethernet

Function Service

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Connection

Number of connections 2 Piece(s)

Connection 1

Type of connection	Connector
Function	Data interface Signal IN Signal OUT Voltage supply
Thread size	M12
Type	Male
Material	Metal
No. of pins	12 -pin
Encoding	A-coded

Connection 2

Type of connection	Connector
Function	Configuration interface Data interface
Thread size	M12
Type	Female
Material	Metal
No. of pins	4 -pin
Encoding	D-coded

Mechanical data

Design	Cubic
Dimension (W x H x L)	43 mm x 61 mm x 44 mm
Housing material	Metal Plastic , Diecast aluminum , PC
Lens cover material	Plastic
Net weight	120 g
Housing color	Silver
Type of fastening	Mounting thread Via optional mounting device

Operation and display

Type of display	LED
Number of LEDs	10 Piece(s)
Type of configuration	Configuration codes Teach-in Via web browser
Operational controls	Button(s)
Function of the operational control	Adjustment mode Auto-setup Trigger

Environmental data

Ambient temperature, operation	-30 ... 50 °C
Ambient temperature, storage	-20 ... 70 °C
Relative humidity (non-condensing)	90 %

Certifications

Degree of protection	IP 65
Protection class	III

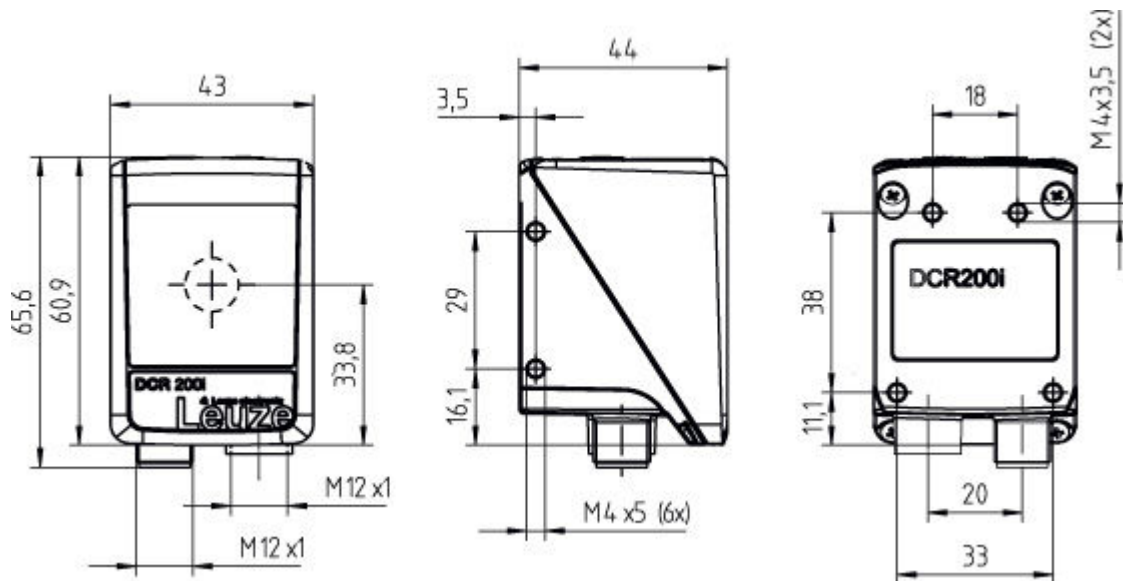
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Certifications	c UL US
Test procedure for EMC in accordance with standard	EN 61000-6-2 EN 61000-6-4
Test procedure for continuous shock in accordance with standard	IEC 60068-2-29, test Eb
Test procedure for vibration in accordance with standard	IEC 60068-2-6, test Fc

Classification	
Customs tariff number	84719000
eCl@ss 8.0	27280103
eCl@ss 9.0	27280103
ETIM 5.0	EC002999

Dimensioned drawings

All dimensions in millimeters

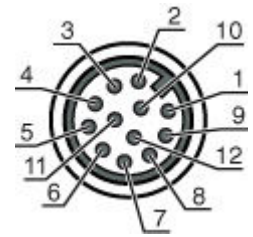


Electrical connection

Connection 1	PWR / SWIO
Type of connection	Connector
Function	Data interface Signal IN Signal OUT Voltage supply
Thread size	M12
Type	Male
Material	Metal
No. of pins	12 -pin
Encoding	A-coded

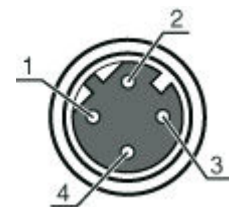
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Pin	Pin assignment
1	VIN
2	GNDIN
3	SWIN 1
4	SWOUT 2
5	FE
6	GND RS 232 / GND RS 422
7	Rx-
8	Tx-
9	RxD/Rx+
10	TxD/Tx+
11	SWIO 3
12	SWIO 4



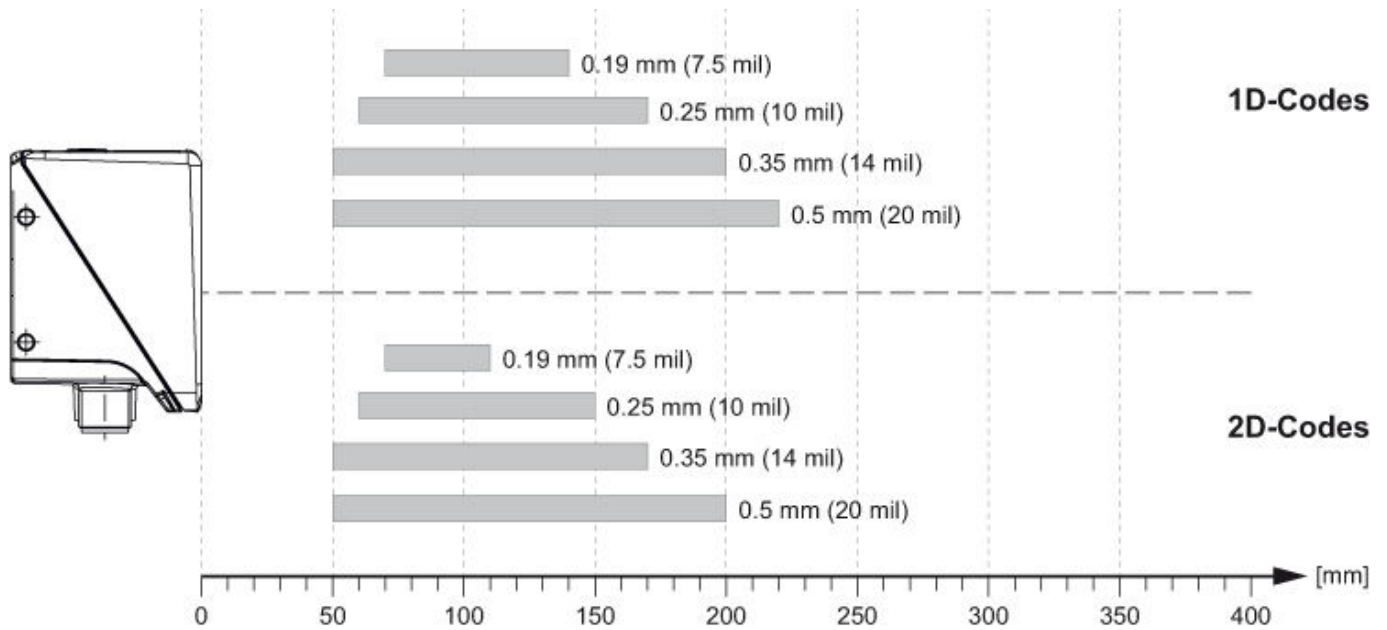
Connection 2	HOST
Type of connection	Connector
Function	Configuration interface Data interface
Thread size	M12
Type	Female
Material	Metal
No. of pins	4 -pin
Encoding	D-coded

Pin	Pin assignment
1	TD+
2	RD+
3	TD-
4	RD-

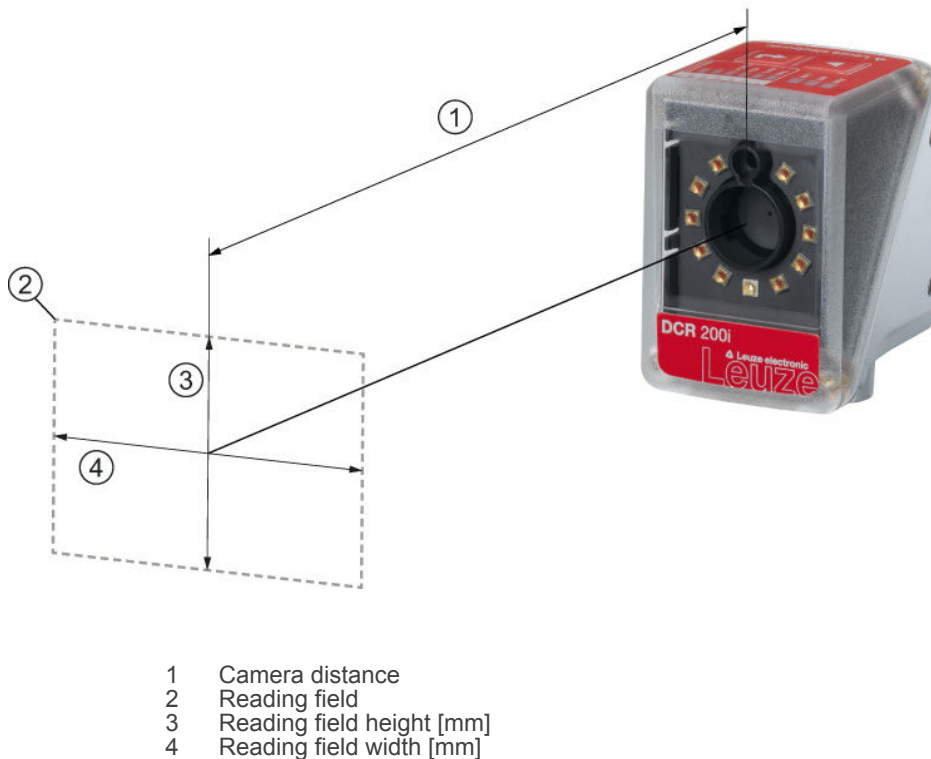


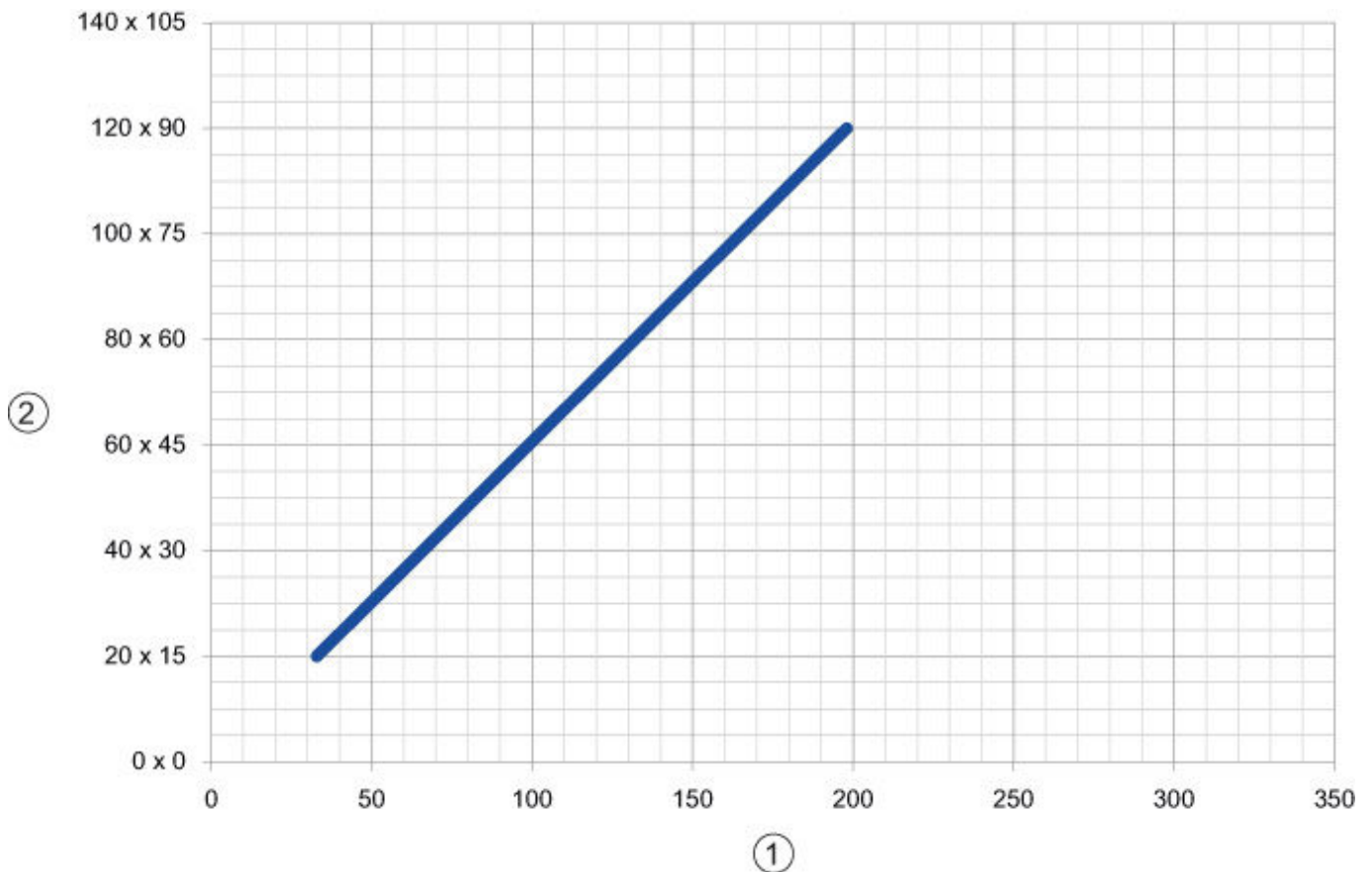
Diagrams

Reading distances



Relationship between camera distance and reading field size





- 1 Camera distance [mm]
2 Reading field: width x height [mm]

Operation and display

LEDs

LED	Display	Meaning
1	PWR	Off
		Green, flashing
		Green, continuous light
		Orange, continuous light
		Red, flashing
		Red, continuous light
2	NET	Off
		Green, flashing
		Green, continuous light
		Red, flashing
		Red, continuous light
3	LINK	Green, continuous light
		Yellow, flashing
4	TRIG	Green, flashing
5	AUTO	Green, flashing
6	ADJ	Green, flashing
7	TEACH	Green, flashing

Part no.: 50137331 – DCR 202i FIX-M1-102-R3-H – Stationary 2D-code reader

Part number code

Part designation: DCR XXX YYY-Z-AAA-BC-D-EEEE

DCR	Operating principle: DCR: Dual Code Reader
XXXX	Series/interface (integrated fieldbus technology): 202i: Ethernet TCP/IP, UDP, RS 232/RS 422 248i: PROFINET-IO, Ethernet TCP/IP, UDP, RS 232/RS 422
YYY	Equipment: FIX: Fixed focal length
Z	Optics: U: Ultra high density (very close) N: High Density (close) M: Medium Density (medium distance) F: Low Density (remote) L: Ultra low density (very large distance)
AAA	Beam exit: 102: front
B	Illumination: R: Red light I: infrared light
C	Resolution range: 3: 1280 x 960 pixels
D	Protective screen: n/a: Plastic G: Glass P: Polarization filter
EEEE	Special equipment: V: Stainless steel housing F001: NPN inputs/outputs H: with heating

Note

A list with all available device types can be found on the Leuze electronic website at www.leuze.com.

Notes


Observe intended use!

- This product is not a safety sensor and is not intended as personnel protection.
- The product may only be put into operation by competent persons.
- Only use the product in accordance with its intended use.


- Warmup time: minimum 30 min at +24 VDC and an ambient temperature of -30 °C

Accessories

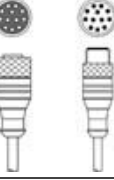
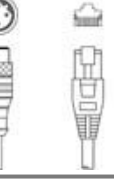
Connection technology - Connection cables

	Part no.	Designation	Article	Description
	50130281	KD S-M12-CA-P1-020	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 12 -pin Connection 2: Open end Shielded: Yes Cable length: 2,000 mm Sheathing material: PUR


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	Part no.	Designation	Article	Description
	50135073	KS ET-M12-4A-P7-020	Connection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: Open end Shielded: Yes Cable length: 2,000 mm Sheathing material: PUR



Connection technology - Interconnection cables

	Part no.	Designation	Article	Description
	50130284	KDS S-M12-CA-M12-CA-P1-020	Interconnection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 12 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 12 -pin Shielded: Yes Cable length: 2,000 mm Sheathing material: PUR
	50135080	KSS ET-M12-4A-RJ45-A-P7-020	Interconnection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: RJ45 Shielded: Yes Cable length: 2,000 mm Sheathing material: PUR

Mounting technology - Mounting brackets

	Part no.	Designation	Article	Description
	50132151	BT 320M	Mounting bracket	Design of mounting device: Angle, L-shape Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Rigid Material: Metal

Services

	Part no.	Designation	Article	Description
	S981014	CS30-S-110	Start-up support	Details: Performed at location of customer's choosing, duration: max. 10 hours. Conditions: Devices and connection cables are already mounted, price not including travel costs and, if applicable, accommodation expenses. Restrictions: No mechanical (mounting) and electrical (wiring) work performed, no changes (attachments, wiring, programming) to third-party components in the nearby environment.
	S981019	CS30-T-110	Product training	Details: Location and content to be agreed upon, duration: max. 10 hours. Conditions: Price not including travel costs and, if applicable, accommodation expenses. Restrictions: Travel costs and accommodation expenses charged separately and according to expenditure.