



Part no.: 50137571
DCR 202i FIX-L1-102-R3-G
Stationary 2D-code reader



RS232

RS422

Ethernet

Figure can vary

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- Dimensioned drawings
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Technical data

Basic data	
Series	DCR 200i
Chip	CMOS
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 ... 800 mm
Light source	LED , Red
Transmitted-signal shape	Pulsed
Camera resolution, horizontal	1,280 px
Camera resolution, vertical	960 px
Modulus size	0.35 ... 1 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	8 W
Inputs	
Number of digital switching inputs	1 Piece(s)
Switching inputs	
Voltage type	DC

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
Transmission protocol	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)
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Connection 1

Function	Data interface Signal IN Signal OUT Voltage supply
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Type of connection	Connector
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Thread size	M12
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Type	Male
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Material	Metal
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No. of pins	12 -pin
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Encoding	A-coded
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Connection 2

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

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

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

Ambient temperature, operation	0 ... 50 °C
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Ambient temperature, storage	-20 ... 70 °C
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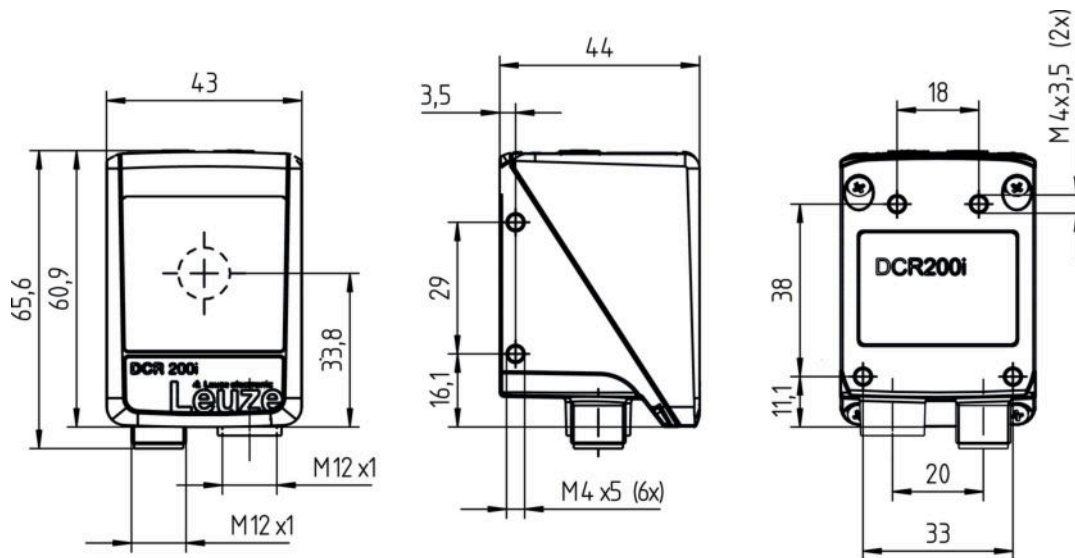
Relative humidity (non-condensing)	90 %
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Certifications	
Degree of protection	IP 65
Protection class	III
Certifications	c UL US
Test procedure for EMC in accordance with standard	EN 61000-6-2 EN 61000-6-4
Test procedure for continuous shock in accordance 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
ETIM 6.0	EC002999

Dimensioned drawings

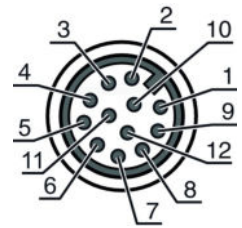
All dimensions in millimeters



Electrical connection

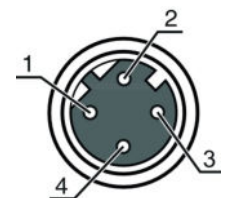
Connection 1	PWR / SWIO
Function	Data interface Signal IN Signal OUT Voltage supply
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	12 -pin
Encoding	A-coded

Pin	Pin assignment
1	V+
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



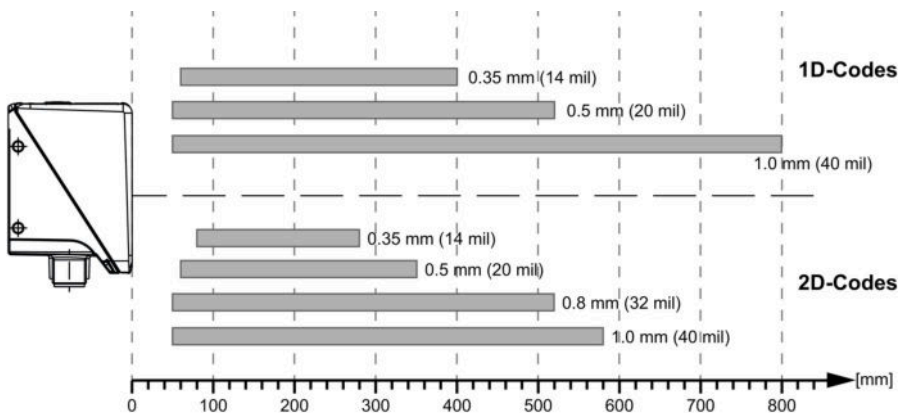
Connection 2	HOST
Function	Configuration interface Data interface
Type of connection	Connector
Thread size	M12
Type	Female
Material	Metal
No. of pins	4 -pin
Encoding	D-coded

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

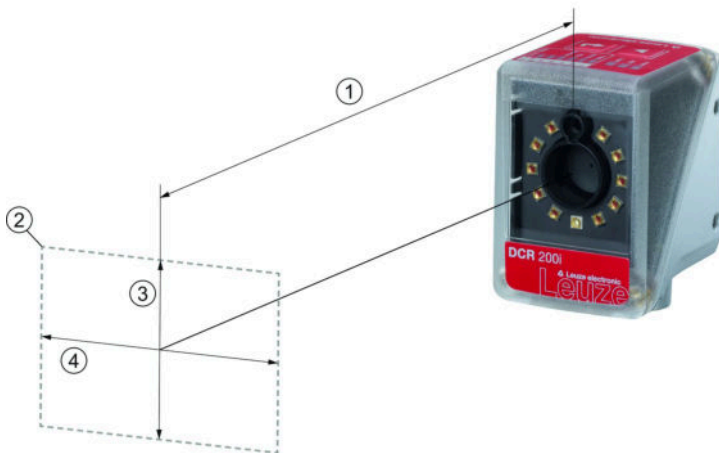


Diagrams

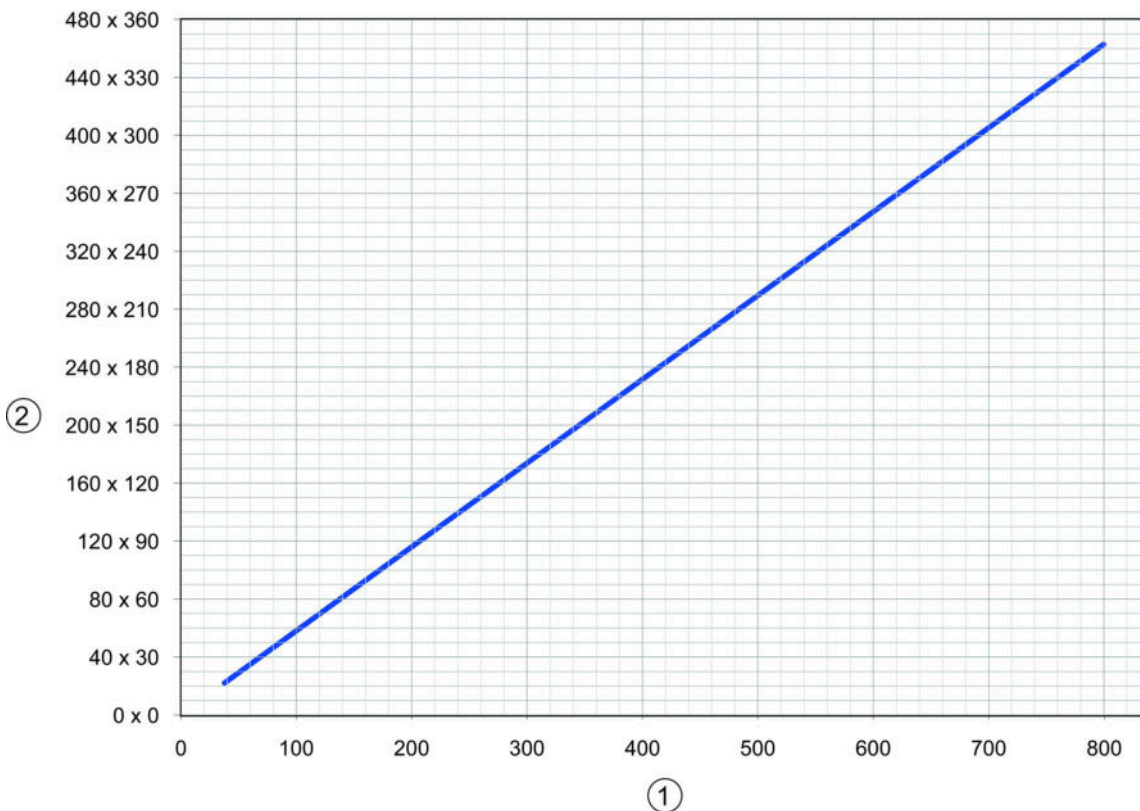
Reading distances



Relationship between camera distance and reading field size



- 1 Camera distance
- 2 Reading field
- 3 Reading field height [mm]
- 4 Reading field width [mm]



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

Operation and display

LEDs

LED	Display	Meaning	
1	PWR	Off	No supply voltage
		Green, flashing	Initialization
		Green, continuous light	Operational readiness
		Orange, continuous light	Service operation
		Red, flashing	Device OK, warning set
		Red, continuous light	Device error
2	NET	Off	No supply voltage
		Green, flashing	Initialization
		Green, continuous light	Operational readiness
		Red, flashing	Communication error
		Red, continuous light	Network error
3	LINK	Green, continuous light	Ethernet connection is established
		Yellow, flashing	Data exchange active
4	TRIG	Green, flashing	Trigger and display of the read quality
5	AUTO	Green, flashing	Auto-setup and display of the read quality
6	ADJ	Green, flashing	Alignment mode and display of the read quality
7	TEACH	Green, flashing	Teach-in and display of the read quality

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 website at www.leuze.com.



Notes

Observe intended use!

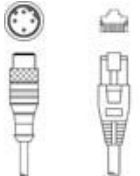
- This product is not a safety sensor and is not intended as personnel protection.
- The product may only be put into operation by competent persons.
- Only use the product in accordance with its intended use.

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
	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
	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

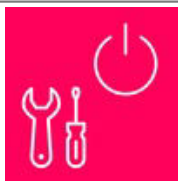

	Part no.	Designation	Article	Description
	50132151	BT 320M	Mounting bracket	Design of mounting device: Angle, L-shape Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Rigid Material: Metal

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Mounting technology - Rod mounts

	Part no.	Designation	Article	Description
	50132150	BTU 320M-D12	Mounting system	Design of mounting device: Mounting system Fastening, at system: For 12 mm rod Mounting bracket, at device: Screw type Type of mounting device: Clampable, Adjustable, Turning, 360° 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.

Note

A list with all available accessories can be found on the Leuze electronic website in the Download tab of the article detailed page.