



Figure can vary

**Part no.: 50134101**  
**DCR 202i FIX-F1-102-R3-G-V**  
**Stationary 2D-code reader**



**RS232** **RS422**

Ethernet



## Contents

- . Technical data
- . Dimensioned drawings
- . Electrical connection
- . Diagrams
- . Operation and display
- . Accessories
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## Technical data

<b>Basic data</b>	
Series	DCR 200i
<b>Functions</b>	
Software functions	Reading of 2D codes Reading of 1D codes
<b>Read data</b>	
Code types, readable	QR code Code 128 GS1 Databar Omnidirectional Aztec EAN 8/13 2/5 Interleaved UPC GS1 Databar Stacked Codabar Code 93 Code 39 PDF417 Data Matrix Code GS1 Databar Pharma Code EAN 128 GS1 Databar QR code
<b>Optical data</b>	
Reading distance	70 ... 360 mm
Light source	LED, Red
Transmitted-signal shape	Pulsed
Camera resolution, horizontal	1,280 px
Camera resolution, vertical	960 px
Chip	CMOS
Module size	0.19 ... 0.5 mm
Electronic shutter speed	0.068 ... 5 ms
Camera type	Monochrome
<b>Electrical data</b>	
Protective circuit	Short circuit protected Polarity reversal protection
<b>Performance data</b>	
Supply voltage	18 ... 30 V, DC
Average power consumption	8 W
<b>Inputs</b>	
Number of digital switching inputs	1 Piece(s)
<b>Switching inputs</b>	
Type	Digital switching input
Voltage type	DC

**Outputs**

Number of digital switching outputs 1 Piece(s)

**Switching outputs**

Type Digital switching output

Voltage type DC

Switching current, max. 100 mA

**Switching output 1**

Switching principle +24 V switching

**Inputs/outputs selectable**

Number of inputs/outputs selectable 2 Piece(s)

Type Inputs/outputs selectable

Voltage type DC

Voltage type 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 &lt;STX&gt;&lt;data&gt;&lt;CR&gt;&lt;LF&gt;

 Data encoding ASCII  
Binary

**RS 422**

Function Process

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

Start bit 1

Data bit 7, 8 data bits

Stop bit 1, 2 stop bits

Parity Adjustable

 Data encoding ASCII  
Binary

Data format Adjustable

**Ethernet**

 Architecture Server  
Client

 Address assignment Manual address assignment  
DHCP

 Transmission speed 100 Mbit/s  
10 Mbit/s

Function Process

Switch functionality None

Transmission protocol TCP/IP , UDP

**Service interface**

Type Ethernet

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**Ethernet**

Function	Service
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**Connection**

Number of connections	2 Piece(s)
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**Connection 1**

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

**Connection 2**

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

**Mechanical data**

Design	Cubic
Dimension (W x H x L)	46 mm x 61 mm x 46 mm
Housing material	Stainless steel, V4A
Lens cover material	Glass
Net weight	392 g
Housing color	Silver
Type of fastening	Mounting thread Via optional mounting device

**Operation and display**

Type of display	LED
Number of LEDs	3 Piece(s)
Type of configuration	Configuration codes Teach-in Via web browser

**Environmental data**

Ambient temperature, operation	0 ... 50 °C
Ambient temperature, storage	-20 ... 70 °C
Relative humidity (non-condensing)	90 %

**Certifications**

Degree of protection	IP 69K IP 67
Protection class	III

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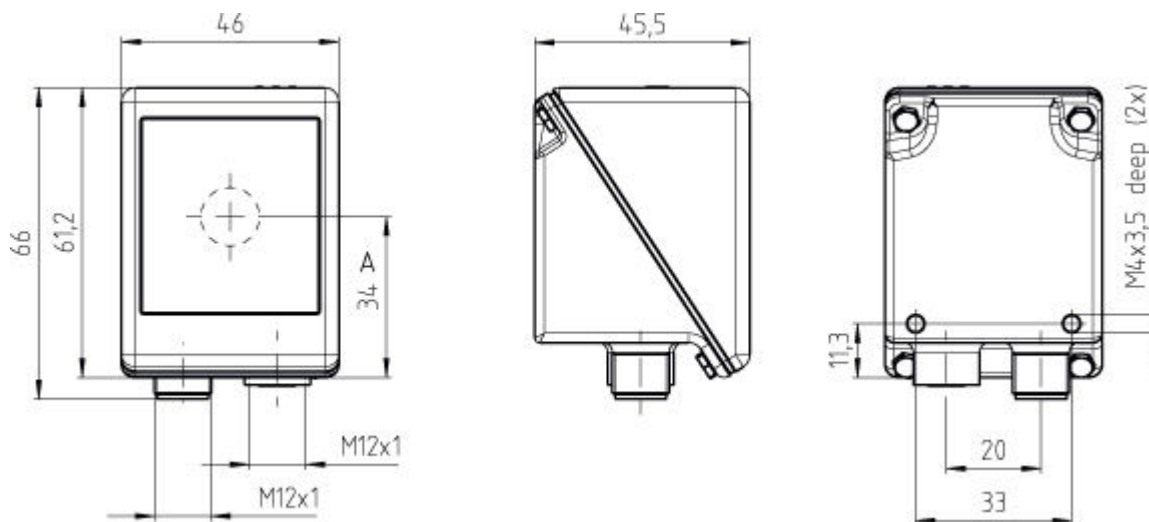
Certifications	c UL US
Test procedure for EMC in accordance with standard	EN 61000-6-4 EN 61000-6-2
Test procedure for continuous shock in accordance with standard	IEC 60068-2-29, test Eb
Test procedure for vibration in accordance with standard	IEC 60068-2-6, test Fc

### Classification

eCl@ss 8.0	27280103
eCl@ss 9.0	27280103

## Dimensioned drawings

All dimensions in millimeters

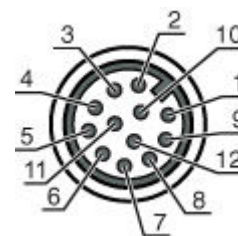


## Electrical connection

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

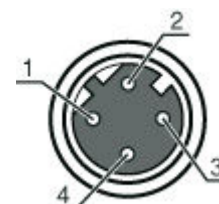
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Pin	Pin assignment
1	VIN
2	GNDIN
3	SWIN 1
4	SWOUT 2
5	FE
6	GND RS 232 / GND RS 422
7	Rx-
8	Tx-
9	RxD/Rx+
10	TxD/Tx+
11	SWIO 3
12	SWIO 4



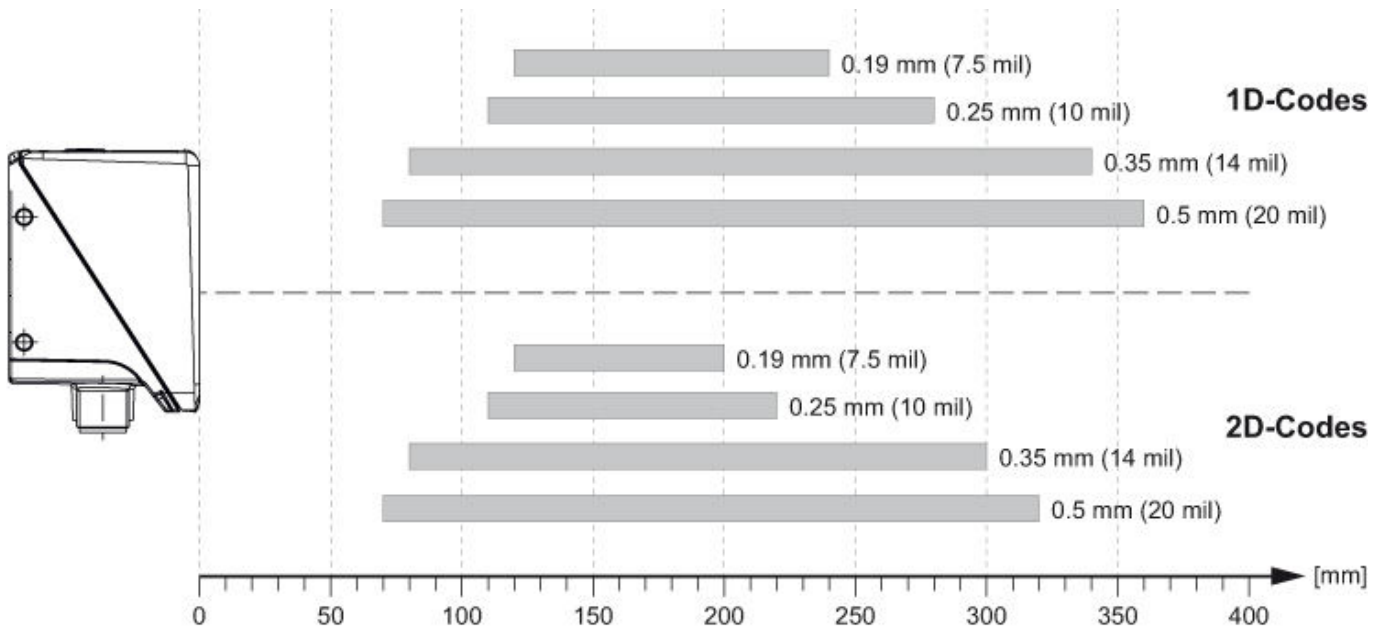
Connection 2	HOST
Type of connection	Connector
Function	Data interface Configuration interface
Thread size	M12
Type	Female
Material	Stainless steel
No. of pins	4 -pin
Encoding	D-coded

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

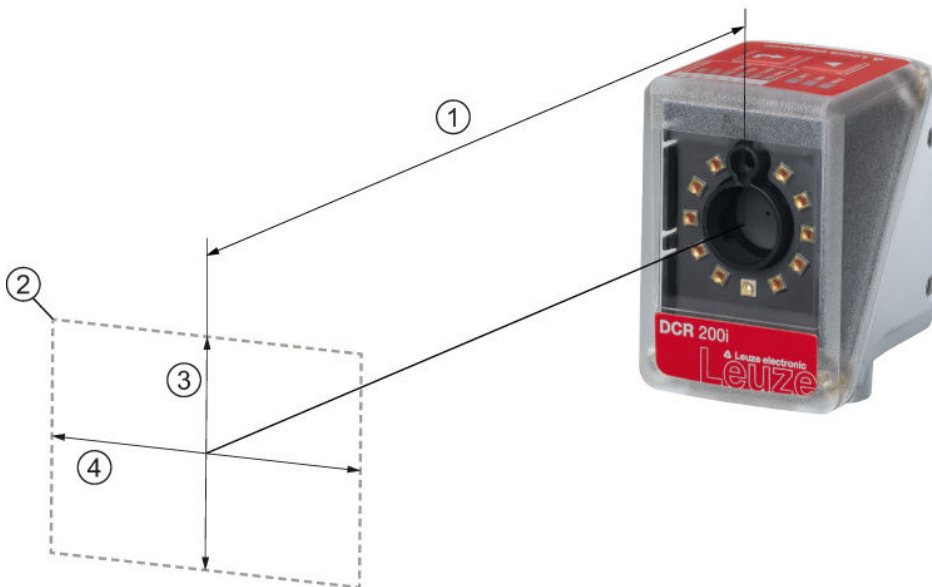


**Diagrams**

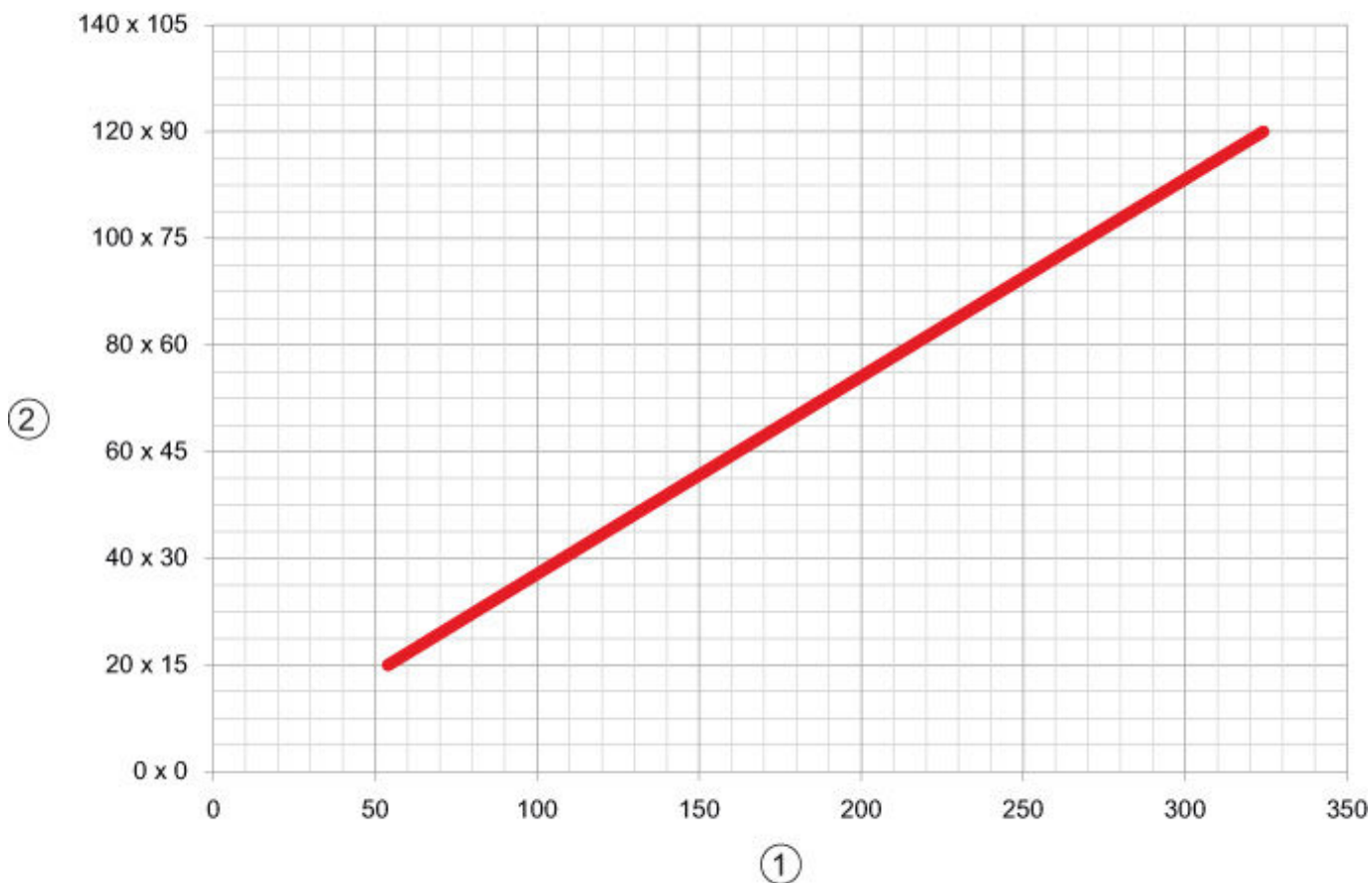
Reading distances



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




## Accessories









### Connection technology - Connection unit

	Part no.	Designation	Article	Description
	50130109	MA 150	Modular connection unit	Supply voltage: 18 ... 30 V Current consumption, max.: 150 mA Connections: 5 Piece(s) Degree of protection: IP 67
	50112893	MA 204i Profibus Gateway	Modular connection unit	Supply voltage: 18 ... 30 V Current consumption, max.: 300 mA Interface: PROFIBUS DP, RS 232 Connections: 6 Piece(s) Degree of protection: IP 65
	50114154	MA 235i CANopen Gateway	Modular connection unit	Supply voltage: 18 ... 30 V Current consumption, max.: 300 mA Interface: CANopen, RS 232 Connections: 6 Piece(s) Degree of protection: IP 65
	50114155	MA 238i EtherCAT Gateway	Modular connection unit	Supply voltage: 18 ... 30 V Current consumption, max.: 300 mA Interface: EtherCAT, RS 232 Connections: 6 Piece(s) Degree of protection: IP 65
	50112891	MA 248i Profinet Gateway	Modular connection unit	Supply voltage: 18 ... 30 V Current consumption, max.: 300 mA Interface: PROFINET, RS 232 Connections: 6 Piece(s) Degree of protection: IP 65
	50114156	MA 255i DeviceNet Gateway	Modular connection unit	Supply voltage: 18 ... 30 V Current consumption, max.: 300 mA Interface: RS 232, DeviceNet Connections: 6 Piece(s) Degree of protection: IP 67
	50114157	MA 258i EtherNet/IP Gateway	Modular connection unit	Supply voltage: 18 ... 30 V Current consumption, max.: 300 mA Interface: EtherNet IP, RS 232 Connections: 6 Piece(s) Degree of protection: IP 65

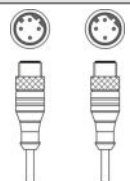
### Connection technology - Connection cables

	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

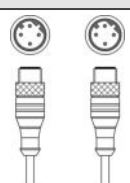
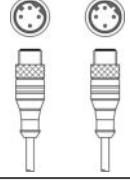
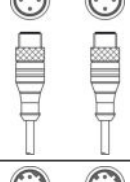
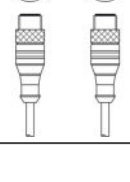

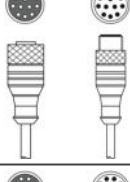
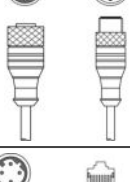
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	Part no.	Designation	Article	Description
	50130282	KD S-M12-CA-P1-050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 12 -pin Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR
	50130283	KD S-M12-CA-P1-100	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 12 -pin Connection 2: Open end Shielded: Yes Cable length: 10,000 mm Sheathing material: PUR
	50134943	KD S-M12-CW-P1-050	Connection cable	Connection 1: Connector, M12, Angled, Female, A-coded, 12 -pin Connection 2: Open end Shielded: Yes Cable length: 5,000 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
	50135074	KS ET-M12-4A-P7-050	Connection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR
	50135075	KS ET-M12-4A-P7-100	Connection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: Open end Shielded: Yes Cable length: 10,000 mm Sheathing material: PUR
	50135076	KS ET-M12-4A-P7-150	Connection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: Open end Shielded: Yes Cable length: 15,000 mm Sheathing material: PUR
	50135077	KS ET-M12-4A-P7-300	Connection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: Open end Shielded: Yes Cable length: 30,000 mm Sheathing material: PUR

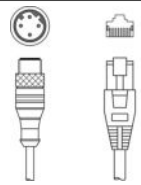
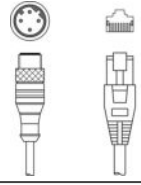
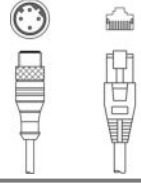
**Connection technology - Interconnection cables**

	Part no.	Designation	Article	Description
	50106901	KB ET-10000-SSA	Interconnection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: Connector, M12, Axial, Male, D-coded, 4 -pin Shielded: Yes Cable length: 10,000 mm Sheathing material: PUR



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	Part no.	Designation	Article	Description
	50106902	KB ET-15000-SSA	Interconnection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: Connector, M12, Axial, Male, D-coded, 4 -pin Shielded: Yes Cable length: 15,000 mm Sheathing material: PUR
	50106899	KB ET-2000-SSA	Interconnection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: Connector, M12, Axial, Male, D-coded, 4 -pin Shielded: Yes Cable length: 2,000 mm Sheathing material: PUR
	50106905	KB ET-30000-SSA	Interconnection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: Connector, M12, Axial, Male, D-coded, 4 -pin Shielded: Yes Cable length: 30,000 mm Sheathing material: PUR
	50106900	KB ET-5000-SSA	Interconnection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: Connector, M12, Axial, Male, D-coded, 4 -pin Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR
	50132488	KB JST- M12A-12P-50	Interconnection cable	
	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
	50130285	KDS S-M12-CA- M12-CA-P1-050	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: 5,000 mm Sheathing material: PUR
	50130286	KDS S-M12-CA- M12-CA-P1-100	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: 10,000 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
	50135081	KSS ET-M12-4A- RJ45-A-P7-050	Interconnection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: RJ45 Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR


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	Part no.	Designation	Article	Description
	50135082	KSS ET-M12-4A-RJ45-A-P7-100	Interconnection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: RJ45 Shielded: Yes Cable length: 10,000 mm Sheathing material: PUR
	50135083	KSS ET-M12-4A-RJ45-A-P7-150	Interconnection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: RJ45 Shielded: Yes Cable length: 15,000 mm Sheathing material: PUR
	50135084	KSS ET-M12-4A-RJ45-A-P7-300	Interconnection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: RJ45 Shielded: Yes Cable length: 30,000 mm Sheathing material: PUR


**Connection technology - Connectors**

	Part no.	Designation	Article	Description
	50132254	D M12A-12P	Connector	Connection: Connector with solder connection, M12, Axial, Female, A-coded, 12 -pin
	50112155	S-M12A-ET	Connector	Suitable for interface: Ethernet Connection: Connector, M12, Axial, Male, D-coded, 4 -pin

**Connection technology - Adapters**


	Part no.	Designation	Article	Description
	50132255	D M12A-12P-PWR	Adapter	Number of connections: 2 Piece(s) Connection 1: Connector, M12, Axial, Female, A-coded, 12 -pin Connection 2: Jack socket

**Mounting technology - Mounting brackets**

	Part no.	Designation	Article	Description
	50132151	BT 320M	Mounting bracket	Design of mounting device: Angle, L-shape Mounting bracket, 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	Contains: 4x M4 x 6 screws Design of mounting device: Mounting system Mounting bracket, at system: For 12 mm rod Mounting bracket, at device: Screw type Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Metal

## Notes

Observe intended use!
<ul style="list-style-type: none"> <li>• This product is not a safety sensor and is not intended as personnel protection.</li> <li>• The product may only be put into operation by competent persons.</li> <li>• Only use the product in accordance with its intended use.</li> </ul>