

Technical data sheet

Stationary bar code reader

Part no.: 50116186

BCL 300i OM 100 D



For illustration purposes only

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CE **RS232**

RS422



**UK
CA**

Technical data

Basic data

Series	BCL 300i
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Functions

Functions	Alignment mode
	AutoConfig
	AutoControl
	AutoReflAct
	Code fragment technology
	LED indicator
	Reference code comparison

Characteristic parameters

MTTF	110 years
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Read data

Code types, readable	2/5 Interleaved
	Codabar
	Code 128
	Code 39
	Code 93
	EAN 8/13
	GS1 Databar Expanded
	GS1 Databar Limited
	GS1 Databar Omnidirectional
	UPC
Scanning rate, typical	1,000 scans/s
Bar codes per reading gate, max. number	64 Piece(s)

Optical data

Reading distance	40 ... 300 mm
Light source	Laser, Red
Wavelength	655 nm
Laser class	1, IEC/EN 60825-1:2014
Transmitted-signal shape	Continuous
Modulus size	0.2 ... 0.5 mm
Reading method	Oscillating-mirror scanner
Beam deflection	Via rotating polygon wheel + stepping motor with mirror
Light beam exit	Zero position at side at angle less than 90°
Oscillating mirror frequency	10 Hz
Max. swivel angle	20 °

Electrical data

Protective circuit	Polarity reversal protection
Performance data	
Supply voltage U_B	18 ... 30 V, DC
Power consumption, max.	9 W
Inputs/outputs selectable	
Output current, max.	60 mA
Number of inputs/outputs selectable	2 Piece(s)
Input current, max.	8 mA

Interface

Type	RS 232, RS 422
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RS 232

Function	Process
Transmission speed	4,800 ... 115,200 Bd
Data format	Adjustable
Start bit	1
Data bit	7,8
Stop bit	1.2
Parity	Adjustable
Transmission protocol	<STX><data><CR><LF>
Data encoding	ASCII

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
Transmission protocol	Adjustable
Data encoding	ASCII

Service interface

Type	USB 2.0
USB	
Function	Configuration via software
	Service

Connection

Number of connections	1 Piece(s)
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Connection 1

Function	BUS OUT
	Connection to device
	Data interface
	PWR / SW IN / OUT
	Service interface
Type of connection	Plug connector, It is essential to use a connection unit when commissioning the device.
No. of pins	32 -pin
Type	Male

Mechanical data

Design	Cubic
Dimension (W x H x L)	125 mm x 58 mm x 110 mm
Housing material	Metal
Metal housing	Diecast aluminum
Lens cover material	Glass
Net weight	580 g
Housing color	Red
	Silver
Type of fastening	Dovetail grooves
	Fastening on back
	Via optional mounting device

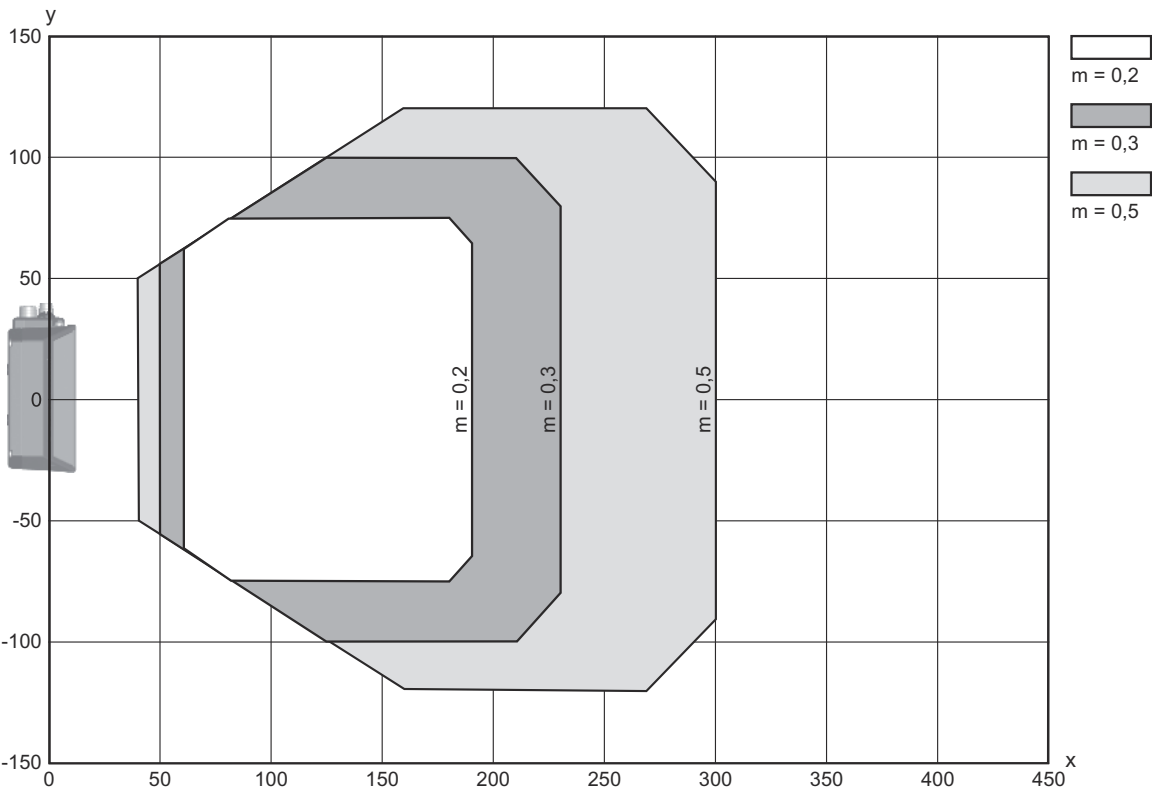
Electrical connection

Connection 1

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Diagrams

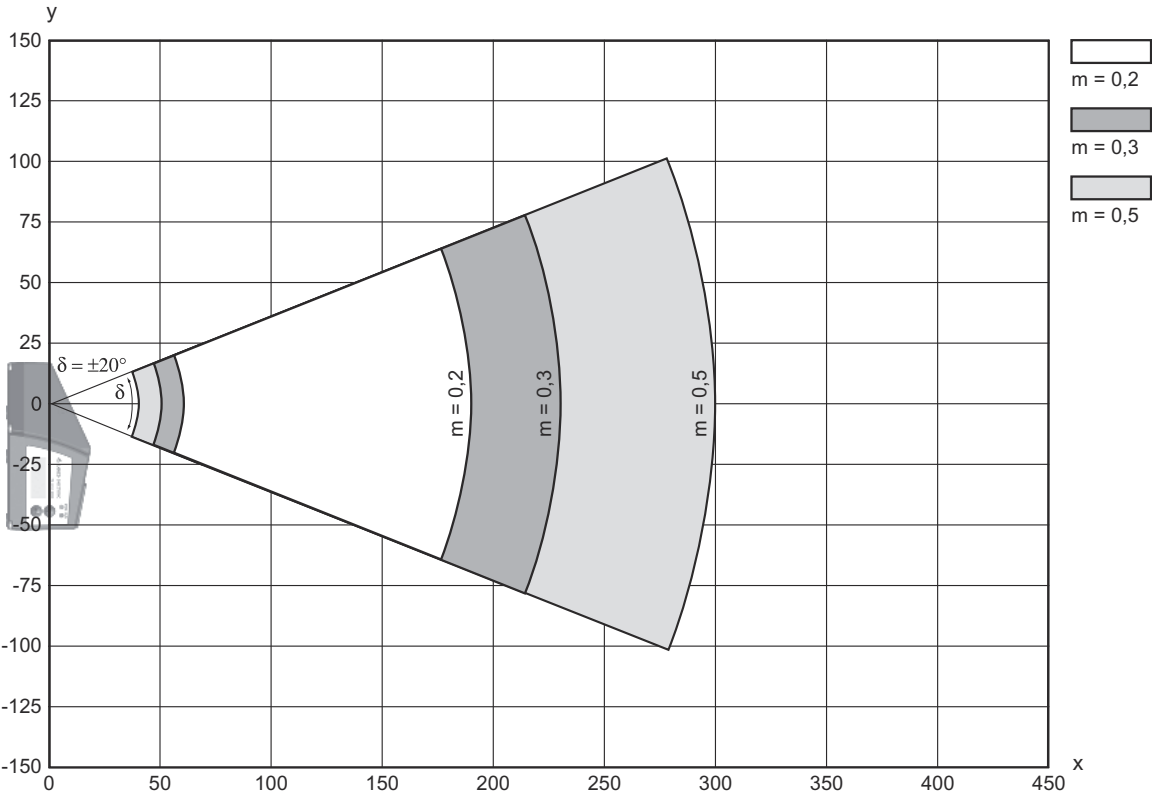
Reading field curve



x Reading field distance [mm]
y Reading field width [mm]

Diagrams

Lateral reading field curve



Operation and display

LED	Display	Meaning
1 PWR	Green, flashing	Device ok, initialization phase
	Green, continuous light	Device OK
	Green, briefly off - on	Reading successful
	Green, briefly off - briefly red - on	Reading not successful
	Orange, continuous light	Service mode
	Red, flashing	Device OK, warning set
	Red, continuous light	Error, device error
2 BUS	Green, flashing	Initialization
	Green, continuous light	Bus operation ok
	Red, flashing	Communication error
	Red, continuous light	Bus error

Part number code

Part designation: **BCL XXXX YYZ AAA BB CCCC**

BCL	Operating principle BCL: bar code reader
XXXX	Series/interface (integrated fieldbus technology) 300i: RS 232 / RS 422 (stand-alone) 301i: RS 485 (multiNet slave) 304i: PROFIBUS DP 308i: EtherNet TCP/IP, UDP 338i: EtherCAT 348i: PROFINET RT 358i: EtherNet/IP
YY	Scanning principle S: line scanner (single line) R1: line scanner (raster) O: oscillating-mirror scanner (oscillating mirror)
Z	Optics N: High Density (close) M: Medium Density (medium distance) F: Low Density (remote) L: Long Range (very large distances) J: ink-jet (depending on the application)
AAA	Beam exit 100: lateral 102: front
BB	Special equipment D: With display H: with heating DH: optionally with display and heating P: plastic exit window
CCCC	Functions F007: optimized process data structure F099: OPC-UA function

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.



ATTENTION! LASER RADIATION – CLASS 1 LASER PRODUCT



- The device satisfies the requirements of IEC/EN 60825-1:2014 safety regulations for a product of **laser class 1** and complies with 21 CFR 1040.10 except for conformance with IEC 60825-1 Ed. 3., as described in Laser Notice No. 56, dated May 8, 2019.
- ⚠ Observe the applicable statutory and local laser protection regulations.
 - ⚠ The device must not be tampered with and must not be changed in any way.
There are no user-serviceable parts inside the device.
Repairs must only be performed by Leuze electronic GmbH + Co. KG.

Accessories

Connection technology - Connection unit

	Part no.	Designation	Article	Description
	50114369	MA 100	Modular connection unit	Supply voltage: 18 ... 30 V, DC Interface: RS 232, RS 485 Connections: 1 Piece(s) Degree of protection: IP 54

Connection technology - Connection cables

	Part no.	Designation	Article	Description
	50132079	KD U-M12-5A-V1-050	Connection cable	Application: Chemical resistant Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC

Connection technology - Interconnection cables

	Part no.	Designation	Article	Description
	50114571 *	KB 301-3000	Interconnection cable	Suitable for interface: RS 232, RS 422, RS 485 Connection 1: Socket connector Connection 2: JST ZHR connector, 10 -pin, 6 -pin Shielded: Yes Cable length: 3,000 mm Sheathing material: PVC
	50117011	KB USB A - USB miniB	Service line	Application: Oil and lubricant resistant Suitable for interface: USB Connection 1: USB Connection 2: USB Shielded: Yes Cable length: 1,500 mm Sheathing material: PVC

* Necessary accessories, please order separately

Connection technology - Connection boxes

	Part no.	Designation	Article	Description
	50116463 *	MK 300	Connection unit	Suitable for: BCL 300i, BPS 300i Number of connections: 3 Piece(s) Connection: Terminal
	50116468 *	MS 300	Connection unit	Suitable for: BCL 300i, BPS 300i Number of connections: 3 Piece(s) Connection: Connector, M12

Accessories

	Part no.	Designation	Article	Description
	50150597 *	MS 342	Connector hood	Suitable for: BCL 300i Supply voltage: DC Number of connections: 1 Piece(s) Connection: Connector, M12

* Necessary accessories, please order separately

Mounting technology - Mounting brackets

	Part no.	Designation	Article	Description
	50121433	BT 300 W	Mounting device	Contains: 4x M4 x 10 screw, 2x M6 x 10 screws, 4x M3 x 8 screw Design of mounting device: Angle, L-shape Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Adjustable Material: Metal

Mounting technology - Rod mounts

	Part no.	Designation	Article	Description
	50121435	BT 56 - 1	Mounting device	Functions: Static applications Design of mounting device: Mounting system Fastening, at system: For 12 mm rod, For 14 mm rod, For 16 mm rod Mounting bracket, at device: Clampable Material: Metal Tightening torque of the clamping jaws: 8 N·m

Mounting technology - Other

	Part no.	Designation	Article	Description
	50124941	BTU 0300M-W	Mounting device	Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable, Groove mounting, Suited for M4 screws Material: Metal Shock absorber: No

Services

	Part no.	Designation	Article	Description
	S981020	CS30-E-212	Hourly rate	Details: Compilation of the application data, selection and suggestion of suitable sensor system, drawing prepared as assembly sketch. Conditions: Completed questionnaire or project specifications with a description of the application have been provided.

Accessories

	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.
	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.
	S981021	CS30-V-212	Hourly rate	Details: REA evaluation with creation of a test report, evaluation of the code quality. Conditions: Original bar codes to be provided by the client.

Note



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