

Technical data sheet Stationary bar code reader

Part no.: 50116219

BCL 300i SM 102 D



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Technical data



DCI 200:	Function	Process
DOL 3001	Transmission speed	4,800 115,200 Bd
	Data format	Adjustable
	Start bit	1
	Data bit	7,8
•	Stop bit	1.2
AutoControl	Parity	Adjustable
AutoReflAct		<stx><data><cr><lf></lf></cr></data></stx>
Code fragment technology		ASCII
LED indicator		
Reference code comparison	RS 422	
	Function	Process
	Transmission speed	4,800 115,200 Bd
110 years	Data format	Adjustable
	Start bit	1
	Data bit	7, 8 data bits
2/5 Interleaved	Stop bit	1, 2 stop bits
Codabar	Transmission protocol	Adjustable
Code 128	Data encoding	ASCII
Code 39		
Code 93	Service interface	
EAN 8/13	Type	USB 2.0
GS1 Databar Expanded	31.	
GS1 Databar Limited	USB	
	Function	Configuration via software
	Connection	
,	Number of connections	1 Piece(s)
0 · · · · · · · · · · · · · · · · · · ·		(,
	Connection 1	
	Function	BUS OUT
60 320 mm		Connection to device
Laser. Red		Data interface
		PWR / SW IN / OUT
1. IEC/EN 60825-1:2014		Service interface
Continuous	Type of connection	Plug connector, It is essential to use a
60 °		connection unit when commissioning th device.
	No of nine	32 -pin
0.2 0.5 mm	•	•
Line scanner	Туре	Male
Via rotating polygon wheel	Mechanical data	
Front		
	-	Cubic
		95 mm x 44 mm x 68 mm
Polarity reversal protection	-	Metal
,	Metal housing	Diecast aluminum
	Lens cover material	Glass
18 30 V, DC	Net weight	270 g
18 30 V, DC 4.5 W		Red
	Net weight Housing color	Red Silver
	Net weight	Red Silver Dovetail grooves
4.5 W 60 mA	Net weight Housing color	Red Silver
4.5 W	Net weight Housing color	Red Silver Dovetail grooves
4.5 W 60 mA	Net weight Housing color Type of fastening	Red Silver Dovetail grooves Fastening on back
4.5 W 60 mA e 2 Piece(s)	Net weight Housing color	Red Silver Dovetail grooves Fastening on back
4.5 W 60 mA e 2 Piece(s)	Net weight Housing color Type of fastening	Red Silver Dovetail grooves Fastening on back
4.5 W 60 mA e 2 Piece(s)	Net weight Housing color Type of fastening Operation and display	Red Silver Dovetail grooves Fastening on back Via optional mounting device
4.5 W 60 mA e 2 Piece(s) 8 mA	Net weight Housing color Type of fastening Operation and display	Red Silver Dovetail grooves Fastening on back Via optional mounting device
	Code fragment technology LED indicator Reference code comparison 110 years 2/5 Interleaved Codabar Code 128 Code 39 Code 93 EAN 8/13 GS1 Databar Expanded GS1 Databar Limited GS1 Databar Omnidirectional UPC 1,000 scans/s 64 Piece(s) 60 320 mm Laser, Red 655 nm 1, IEC/EN 60825-1:2014 Continuous 60 ° 0.2 0.5 mm Line scanner Via rotating polygon wheel Front	Alignment mode AutoConfig AutoControl AutoReffAct Code fragment technology LED indicator Reference code comparison 2/5 Interleaved Codabar Code 128 Code 39 Code 93 EAN 8/13 GS1 Databar Expanded GS1 Databar Expanded GS1 Databar Comidirectional UPC 1,000 scans/s 64 Piece(s) Connection 60 320 mm Laser, Red 655 nm 1, IEC/EN 60825-1:2014 Continuous 60 ° 0.2 0.5 mm Line scanner Via rotating polygon wheel Front Polarity reversal protection Transmission speed Data encoding Transmission speed Data encoding Service interface Type USB Function USB Function Vary Connection Number of connections Connection Number of connections Polarity reversal protection Mechanical data Design Dimension (W x H x L) Housing material

Technical data



Environmental data

Ambient temperature, operation	0 40 °C
Ambient temperature, storage	-20 70 °C
Relative humidity (non-condensing)	0 90 %

Certifications	
Degree of protection	IP 65
Protection class	III
Approvals	c UL US
Test procedure for EMC in accordance	EN 55022
with standard	EN 61000-4-2, -3, -4, -6
Test procedure for shock in accordance with standard	IEC 60068-2-27, test Ea
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

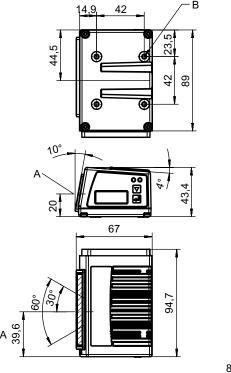
Classification

Customs tariff number	84719000
ECLASS 5.1.4	27280102
ECLASS 8.0	27280102
ECLASS 9.0	27280102
ECLASS 10.0	27280102
ECLASS 11.0	27280102
ECLASS 12.0	27280102
ECLASS 13.0	27280102
ECLASS 14.0	27280102
ECLASS 15.0	27280102
ETIM 5.0	EC002550
ETIM 6.0	EC002550
ETIM 7.0	EC002550
ETIM 8.0	EC002550
ETIM 9.0	EC002550
ETIM 10.0	EC002550

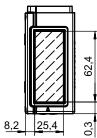
Dimensioned drawings

Leuze

All dimensions in millimeters



- Optical axis
- M4 thread (5 mm deep)



Electrical connection

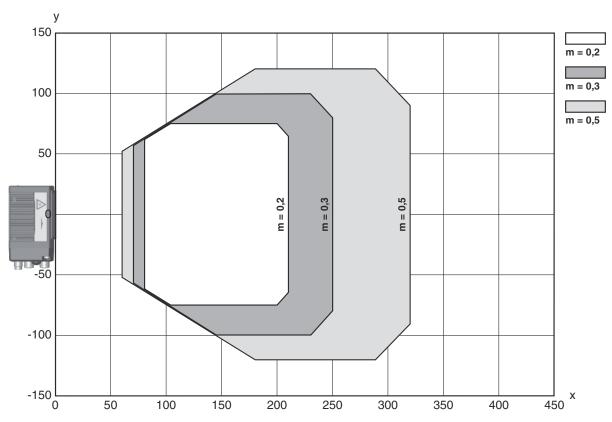
Connection 1

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

Diagrams



Reading field curve



- Reading field distance [mm]
- Reading field width [mm]

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
ВВ	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.
- 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.

We reserve the right to make technical Leuze electronic GmbH + Co. KG info@leuze.com • www.leuze.com changes

Accessories



Connection technology - Connection unit

Part no.	Designation	Article	Description
50114369	MA 100	Modular connection unit	Supply voltage: 18 30 V 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	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
5	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	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 Interface: RS 232 Number of connections: 3 Piece(s) Connection: Terminal
50116468 *	MS 300	Connection unit	Suitable for: BCL 300i, BPS 300i Interface: RS 232 Number of connections: 3 Piece(s) Connection: Connector, M12

Accessories



	Part no.	Designation	Article	Description
000	50150597 *	MS 342	Connector hood	Suitable for: BCL 348i Supply voltage: DC Interface: IO-Link 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	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

•		0,		
	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

Reflective tapes for standard applications

Part no.	Designation	Article	Description
50106119	REF 4-A-100x100	Reflective tape	Design: Rectangular Reflective surface: 100 mm x 100 mm Material: Plastic Chemical designation of the material: PMMA Fastening: Self-adhesive

The Sensor People In der Braike 1, D-73277 Owen/Germany Phone: +49 7021 573-0 • Fax: +49 7021 573-199 eng • 2025-04-03

Accessories



Services

	Part no.	Designation	Article	Description
р В В В В В В В В В В В В В В В В В В В	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.
	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.

We reserve the right to make technical changes