

Technical data sheet Stationary bar code reader

Part no.: 50116225

BCL 300i SN 102 D



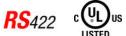
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Technical data



Basic data		RS 232	
Series	BCL 300i	Function	Process
		Transmission speed	4,800 115,200 Bd
Functions		Data format	Adjustable
Functions	Alignment mode	Start bit	1
runctions		Data bit	7,8
	AutoConfig	Stop bit	1.2
	AutoControl	Parity	Adjustable
	AutoReflAct	Transmission protocol	<stx><data><cr><lf></lf></cr></data></stx>
	Code fragment technology	Data encoding	ASCII
	LED indicator		
	Reference code comparison	RS 422	
Characteristic nerometers		Function	Process
Characteristic parameters		Transmission speed	4,800 115,200 Bd
MTTF	110 years	Data format	Adjustable
		Start bit	1
Read data		Data bit	7, 8 data bits
Code types, readable	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	Туре	USB 2.0
	GS1 Databar Expanded	туре	030 2.0
		USB	
	GS1 Databar Limited	Function	Configuration via software
	GS1 Databar Omnidirectional	- unough	comigaration via contrare
	UPC	Connection	
Scanning rate, typical	1,000 scans/s	N. observation and the	4 B' (-)
Bar codes per reading gate, max. number	64 Piece(s)	Number of connections	1 Piece(s)
		Connection 1	
Optical data		Function	BUS OUT
Reading distance	50 160 mm		Connection to device
Light source	Laser, Red		Data interface
N avelength	655 nm		PWR / SW IN / OUT
Laser class	1, IEC/EN 60825-1:2014		Service interface
Transmitted-signal shape	Continuous	Type of connection	Plug connector, It is essential to use a
Usable opening angle (reading field opening)	60 °		connection unit when commissioning the device.
Modulus size	0.127 0.2 mm	No. of pins	32 -pin
	Line scanner	Туре	Male
Reading method			
Beam deflection	Via rotating polygon wheel	Mechanical data	
ight beam exit	Front	Design	Cubic
Electrical data		Dimension (W x H x L)	95 mm x 44 mm x 68 mm
Liecti icai data		Housing material	Metal
Protective circuit	Polarity reversal protection	Metal housing	Diecast aluminum
		Lens cover material	
Performance data			Glass
Supply voltage U _B	18 30 V, DC	Net weight	270 g
Power consumption, max.	4.5 W	Housing color	Red
		_	Silver
Inputs/outputs selectable		Type of fastening	Dovetail grooves
Output current, max.	60 mA		Fastening on back
Number of inputs/outputs selectab	le 2 Piece(s)		Via optional mounting device
Input current, max.	8 mA	Operation and display	
Interface			LED
Туре	RS 232, RS 422	Type of display	LED Monochromatic graphic display, 128 x
			pixels
		Number of LEDs	2 Piece(s)

Technical data



Environmental data

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

Cortifications

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

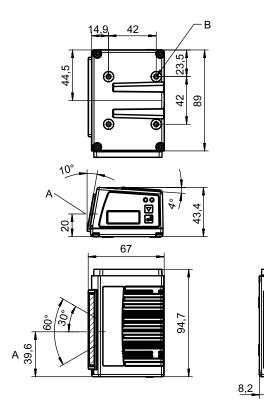
Classification

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

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All dimensions in millimeters



- Optical axis
- M4 thread (5 mm deep)

Electrical connection

Connection 1

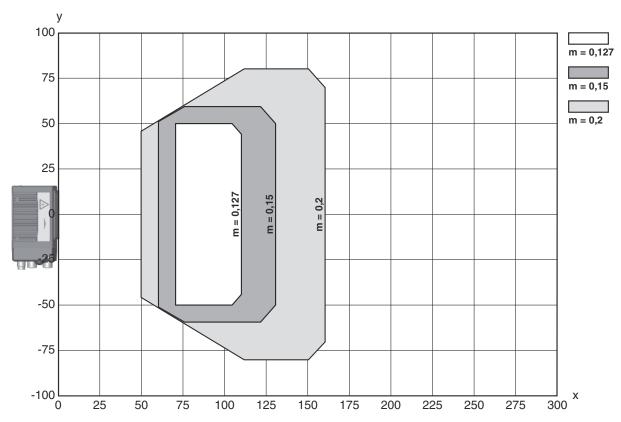
Function	BUS OUT
	Connection to device
	Data interface
	PWR / SW IN / OUT
	Service interface
Type of connection	Plug connector
Type of connection	It is essential to use a connection unit when commissioning the device.
No. of pins	32 -pin
Туре	Male

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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
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

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

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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		

Accessories



Services

	Part no.	Designation	Article	Description
<u>В</u>	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.