



the sensor people





Part no.: 50135042 BCL 338i S F 100 Stationary bar code reader











Figure can vary

Contents

- Technical data
- Dimensioned drawings
- Electrical connection
- Diagrams
- Operation and display
- · Part number code
- Notes
- Accessories



Technical data

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Laser class 2, IEC/EN 60825-1:2007 Transmitted-signal shape Continuous Usable opening angle (reading field opening) 60 ° Module size 0.3 0.5 mm Reading method Line scanner with deflecting mirror Beam deflection By means of rotating polygon mirror wheel + deflecting mirror Light beam exit Lateral with deflecting mirror Electrical data Protective circuit Polarity reversal protection Performance data Supply voltage UB 18 30 V, DC Power consumption, max. 27 W Inputs/outputs selectable Output current, max. 60 mA Number of inputs/outputs selectable 2 Piece(s)	Light source	Laser, Red
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Performance data Supply voltage UB 18 30 V, DC Power consumption, max. 27 W Inputs/outputs selectable Output current, max. 60 mA Number of inputs/outputs selectable 2 Piece(s)	Electrical data	
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Power consumption, max. 27 W Inputs/outputs selectable Output current, max. 60 mA Number of inputs/outputs selectable 2 Piece(s)	Performance data	
Inputs/outputs selectable Output current, max. 60 mA Number of inputs/outputs selectable 2 Piece(s)	Supply voltage U _B	18 30 V, DC
Output current, max. 60 mA Number of inputs/outputs selectable 2 Piece(s)	Power consumption, max.	27 W
Number of inputs/outputs selectable 2 Piece(s)	Inputs/outputs selectable	
	Output current, max.	60 mA
Input current, max. 8 mA	Number of inputs/outputs selectable	2 Piece(s)
	Input current, max.	8 mA



Interface Fine CAT Function Process Fine CAT Function Process Fine CAT Function Process Fine CAT Function			
EffectAT	Interface		
Function		EtherCAT	
Transmission protocol EtherCAT, CoE and EGE Service Interface Type USB USB Function Configuration via software Service Connection Number of connections 1 Piece(s) Connection Function Pugo connection Pugo connection Service interface BUS IN SU TU Data interface BUS IN IN INDUT Connection to device No. of pins 32-pin Type Mate Mechanical data Design Cubic Dimension (W x H x L) Housing material Less cover material Glass Net weight 1370 g Housing cotor Red Type of fastening Pugo fisatening Fastening on back Via optional mounting device Doveball grooves Pugo fisatening Fastening on back Via optional mounting device Doveball grooves Pugo fisatening Pugo fisatening Fastening on back Via optional mounting device Doveball grooves Connection to device Dimension (V x H x L) Fastening on back Via optional mounting device Doveball grooves Continuated data Ambient temperature, operation Ambient temperature, storage Pugore of protection Pugore of pugore Pugore of pugore Pugore of pugore Pugore of pugore Pugo			
Service Interface			
USB	Transmission protocol	EtherCAT, CoE and EoE	
USB			
Sustain	Service interface		
Function Configuration via software	Туре	USB	
Service	USB		
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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 61000-4-2, 3, -4, -6	Ambient temperature, storage	-20 70 °C	
Degree of protection IP 65 Protection class III Certifications c UL US Test procedure for EMC in accordance with standard EN 61000-4-2, 3, -4, -6	Relative humidity (non-condensing)	0 90 %	
Degree of protection IP 65 Protection class III Certifications c UL US Test procedure for EMC in accordance with standard EN 61000-4-2, 3, -4, -6			
Protection class III Certifications c UL US Test procedure for EMC in accordance with standard EN 61000-4-2, 3, -4, -6	Certifications		
Certifications c UL US Test procedure for EMC in accordance with standard EN 61000-4-2, 3, -4, -6	Degree of protection	IP 65	
Test procedure for EMC in accordance with standard EN 61000-4-2, 3, -4, -6	Protection class	III	
	Certifications	c UL US	
EN 55022	Test procedure for EMC in accordance with standard		
		EN 55022	

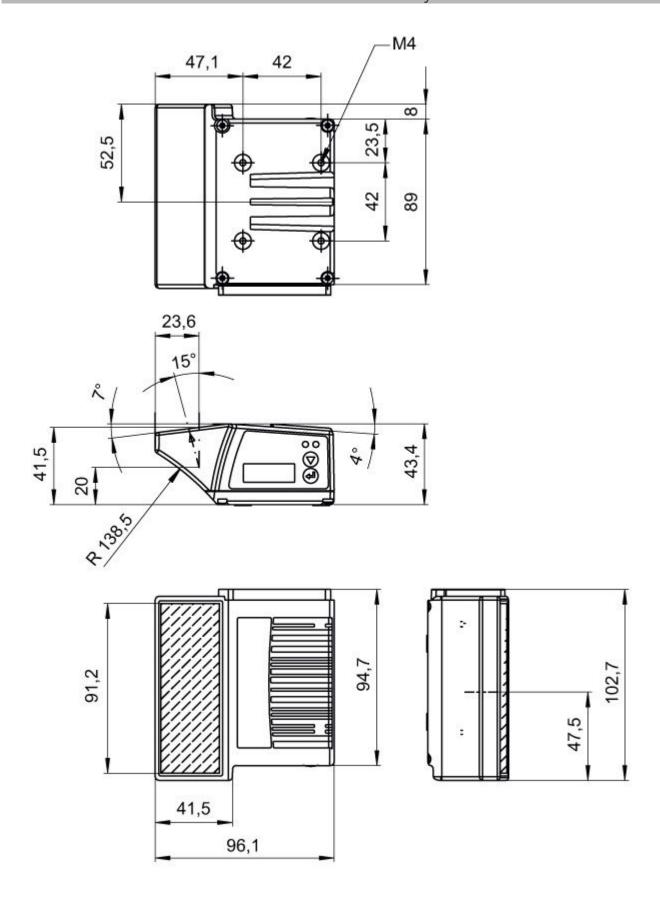


Test procedure for shock in accordance with standard	IEC 60068-2-27, test Ea
Test procedure for continuous shock in accordance with standard	IEC 60068-2-29, test Eb
Test procedure for vibration in accordance with standard	IEC 60068-2-6, test Fc

Classification	
eCl@ss 8.0	27280102
eCl@ss 9.0	27280102
ETIM 5.0	EC002550
ETIM 6.0	EC002550

Dimensioned drawings

All dimensions in millimeters



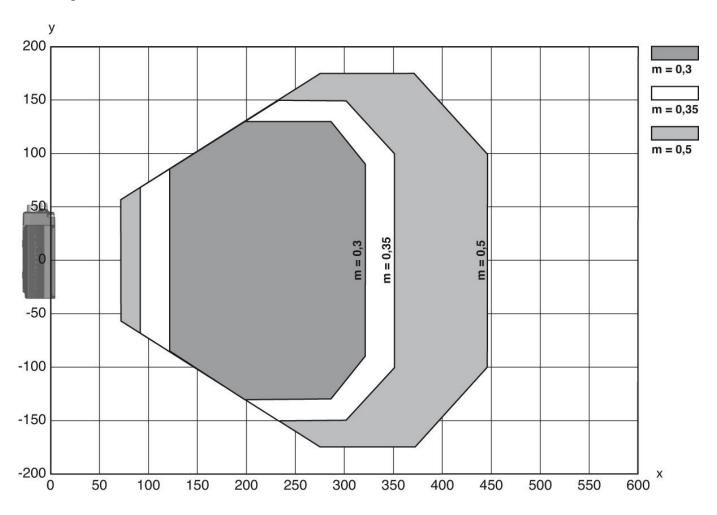


Electrical connection

Connection 1	
Type of connection	Plug connector
Function	Service interface BUS OUT Data interface BUS IN PWR / SW IN/OUT Connection to device
No. of pins	32 -pin
Туре	Male

Diagrams

Reading field curve



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



Operation and display

LEDs

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

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 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

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.



WARNING! LASER RADIATION - LASER CLASS 2

Never look directly into the beam!

The device satisfies the requirements of IEC 60825-1:2007 (EN 60825-1:2007) safety regulations for a product of laser class 2 as well as the U.S. 21 CFR 1040.10 regulations with deviations corresponding to "Laser Notice No. 50" from June 24, 2007.

- Never look directly into the laser beam or in the direction of reflected laser beams! If you look into the beam path over a longer time
 period, there is a risk of injury to the retina.
- Do not point the laser beam of the device at persons!
- Interrupt the laser beam using a non-transparent, non-reflective object if the laser beam is accidentally directed towards a person.
- · When mounting and aligning the device, avoid reflections of the laser beam off reflective surfaces!
- CAUTION! Use of controls or adjustments or performance of procedures other than specified herein may result in hazardous light exposure.
- 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.

NOTE

Affix laser information and warning signs!

Laser information and warning signs are affixed to the device. In addition, self-adhesive laser information and warning signs (stick-on labels) are supplied in several languages.

- Affix the laser information sheet to the device in the language appropriate for the place of use. When using the device in the US, use the stick-on label with the "Complies with 21 CFR 1040.10" note.
- Affix the laser information and warning signs near the device if no signs are attached to the device (e.g. because the device is too small) or if the attached laser information and warning signs are concealed due to the installation position.
- Affix the laser information and warning signs so that they are legible without exposing the reader to the laser radiation of the device or other optical radiation.

Accessories

Connection technology - Connection cables

Part no.	Designation	Article	Description
50132077	KD U-M12-5A- V1-020	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Open end Shielded: No Cable length: 2,000 mm Sheathing material: PVC
50132079	KD U-M12-5A- V1-050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5-pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC
50132080	KD U-M12-5A- V1-100	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Open end Shielded: No Cable length: 10,000 mm Sheathing material: PVC

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Part no.	Designation	Article	Description
50132432	KD U-M12-5A- V1-300	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Open end Shielded: No Cable length: 30,000 mm Sheathing material: PVC
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
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
50137077	KSS ET-M12-4A- M12-4A-P7-020	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: 1,000 mm Sheathing material: PUR
50137078	KSS ET-M12-4A- M12-4A-P7-050	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: 1,000 mm Sheathing material: PUR



	Part no.	Designation	Article	Description
	50137079	KSS ET-M12-4A- M12-4A-P7-100	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
	50137080	KSS ET-M12-4A- M12-4A-P7-150	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
	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
	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
	50108991	D-ET1	Connector	Suitable for interface: Ethernet Connection: RJ45
•	50020501	KD 095-5A	Connector	Connection: Connector, M12, Axial, Female, A-coded, 5 -pin



Part no.	Designation	Article	Description
50112155	S-M12A-ET	Connector	Suitable for interface: Ethernet Connection: Connector, M12, Axial, Male, D-coded, 4 -pin

Connection technology - Terminal boxes

	Part no.	Designation	Article	Description
6	50134929 *	ME 338 103	Connection unit	Suitable for: BCL 338i, BPS 338i Suitable for interface: EtherCAT Number of connections: 4 Piece(s) Connection: Cable with connector, M12, 900 mm
6	50134927 *	ME 338 104	Connection unit	Suitable for: BCL 348i Suitable for interface: PROFINET Number of connections: 5 Piece(s) Connection: Cable with connector, M12, 900 mm
6	50134928 *	ME 338 214	Connection unit	Suitable for: BCL 348i Suitable for interface: PROFINET Number of connections: 5 Piece(s) Connection: Cable with connector, M12, 600 mm
	50134931 *	MK 338	Connection unit	Suitable for: BCL 338i, BPS 338i Suitable for interface: EtherCAT Number of connections: 4 Piece(s) Connection: Terminal
	50134930 *	MS 338	Connection unit	Suitable for: BCL 338i, BPS 338i Suitable for interface: EtherCAT Number of connections: 4 Piece(s) Connection: Connector, M12

^{*} Necessary accessories, please order separately

Connection technology - Adapters

Part no.	Designation	Article	Description
50109832	KDS ET-M12 / RJ45 W-4P	Adapter	Suitable for: Ethernet Number of connections: 2 Piece(s) Connection 1: Connector, M12, Angled, Female, D-coded, 4 -pin Connection 2: RJ45

Mounting technology - Mounting brackets

Pa	Part no.	Designation	Article	Description
501	121433	BT 300 W	S	Contains: 4x M4 x 10 screw, 4x position washers, 4x lock washers 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

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Mounting technology - Rod mounts

Part no.	Designation	Article	Description
50121434	BT 300 - 1	Mounting device	Contains: 4x M4 x 10 screw, 4x position washers, 4x lock washers 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: Screw type Type of mounting device: Turning, 360°, Adjustable Material: Metal
50027375	BT 56	Mounting device	Functions: Static applications Design of mounting device: Mounting system Fastening, at system: For 16 mm rod, For 18 mm rod, For 20 mm rod Mounting bracket, at device: Clampable Material: Metal Tightening torque of the clamping jaws: 8 N·m
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
50111224	BT 59	Mounting bracket	Fastening, at system: Groove mounting Mounting bracket, at device: Clampable Material: Metal
50124941	BTU 0300M-W	Mounting device	Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable, Groove mounting Material: Metal

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

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General

Part no.	Designation	Article	Description
50120731	Housing BCL 300i V2A	Protective housing	Suitable for: BCL 3xxi series bar code reader, deflecting mirror Length: 63 mm Housing material: Stainless steel Standard designation, housing: V2A Lens cover material: Glass Degree of protection: IP 67, IP 69K

Services

Part no.	Designation	Article	Description
S981020	CS30-E-212		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. Restrictions: Travel and accommodation charged separately and according to expenditure.
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.
S981021	CS30-V-212		Details: REA evaluation with creation of a test report, evaluation of the code quality. Conditions: Original bar codes to be provided by the client.