

## **Technical data sheet** Stationary bar code reader Part no.: 50120793 BCL 358i SN 102



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### **Technical data**

#### Basic data

Basic data		
Series	BCL 300i	
Functions		
Functions	Alignment mode	
	AutoConfig	
	AutoControl	
	AutoReflAct	
	Code fragment technology	
	LED indicator	
	Reference code comparison	
Characteristic parameters		
MTTF	110 years	
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	
Occurring acts to wind		
Scanning rate, typical	1,000 scans/s	
Bar codes per reading gate, max. number	64 Piece(s)	
Optical data		
Optical data		
Reading distance	50 160 mm	
Light source	Laser, Red	
Wavelength	655 nm	
Laser class	1, IEC/EN 60825-1:2014	
Transmitted-signal shape	Continuous	

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.	64 Piece(s)

Reading distance	50 160 mm
Light source	Laser, Red
Wavelength	655 nm
Laser class	1, IEC/EN 60825-1:2014
Transmitted-signal shape	Continuous
Usable opening angle (reading field opening)	60 °
Modulus size	0.127 0.2 mm
Reading method	Line scanner
	A.P
Beam deflection	Via rotating polygon wheel
Beam deflection Light beam exit	Front
	01 30
Light beam exit	01 30
Light beam exit Electrical data Protective circuit	Front
Light beam exit Electrical data Protective circuit Performance data	Front Polarity reversal protection
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Light beam exit Electrical data Protective circuit Performance data Supply voltage U <sub>B</sub>	Front Polarity reversal protection 18 30 V, DC
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Light beam exit Electrical data Protective circuit Performance data Supply voltage U <sub>B</sub> Power consumption, max. Inputs/outputs selectable Output current, max.	Front Polarity reversal protection 18 30 V, DC 4.5 W 60 mA

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EtherNet IP Function		Process
Address assign	nent	DHCP
,		Manual address assignment
Switch functiona	ality	Integrated
Transmission sp	-	10 Mbit/s
	ieeu	100 Mbit/s
		100 Mbl//s
Service interface	•	
Туре		USB 2.0
USB		
Function		Configuration via software
Connection		
Number of connect	tions	1 Piece(s)
		(-)
Connection 1		
Function		BUS IN
		Connection to device
		Data interface
		PWR / SW IN / OUT
		Service interface
Type of connect	ion	Plug connector, It is essential to use a
Type of connect		connection unit when commissioning th device.
No. of pins		32 -pin
Туре		Male
Mechanical data		
Design		Cubic
Dimension (W x H :	x L)	95 mm x 44 mm x 68 mm
Housing material	~ _)	Metal
Metal housing		Diecast aluminum
Lens cover materia	1	Glass
Net weight		270 g
Net weight		270 g
Housing color		Pod
Housing color		Red
-		Silver
Housing color Type of fastening		Silver Dovetail grooves
-		Silver Dovetail grooves Fastening on back
-		Silver Dovetail grooves
Type of fastening	isplay	Silver Dovetail grooves Fastening on back
-	isplay	Silver Dovetail grooves Fastening on back
Type of fastening Operation and d	isplay	Silver Dovetail grooves Fastening on back Via optional mounting device
Type of fastening Operation and d Type of display		Silver Dovetail grooves Fastening on back Via optional mounting device
Type of fastening Operation and d Type of display Number of LEDs	on	Silver Dovetail grooves Fastening on back Via optional mounting device
Type of fastening Operation and d Type of display Number of LEDs Type of configurati Environmental d	on ata	Silver Dovetail grooves Fastening on back Via optional mounting device LED 2 Piece(s) Via web browser
Type of fastening Operation and d Type of display Number of LEDs Type of configurati Environmental d Ambient temperatu	on ata ire, operation	Silver Dovetail grooves Fastening on back Via optional mounting device LED 2 Piece(s) Via web browser 0 40 °C
Type of fastening Operation and d Type of display Number of LEDs Type of configurati Environmental d	on ata ire, operation ire, storage	Silver Dovetail grooves Fastening on back Via optional mounting device LED 2 Piece(s) Via web browser

## Interface

Туре

EtherNet IP

### **Technical data**

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### Certifications

Degree of protection	IP 65
Protection class	III
Approvals	c UL US
Test procedure for EMC in accordance with standard	EN 55022
	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

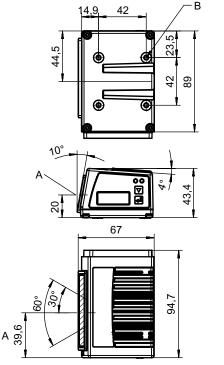
С	lass	sifi	cat	tio	n

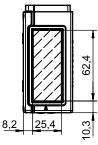
Customs tariff number	84719000
ECLASS 5.1.4	27280102
ECLASS 8.0	27280102
ECLASS 9.0	27280102
ECLASS 10.0	27280102
ECLASS 11.0	27280102
ECLASS 12.0	27280102
ECLASS 13.0	27280102
ECLASS 14.0	27280102
ECLASS 15.0	27280102
ETIM 5.0	EC002550
ETIM 6.0	EC002550
ETIM 7.0	EC002550
ETIM 8.0	EC002550
ETIM 9.0	EC002550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

### **Dimensioned drawings**

All dimensions in millimeters







### **Electrical connection**

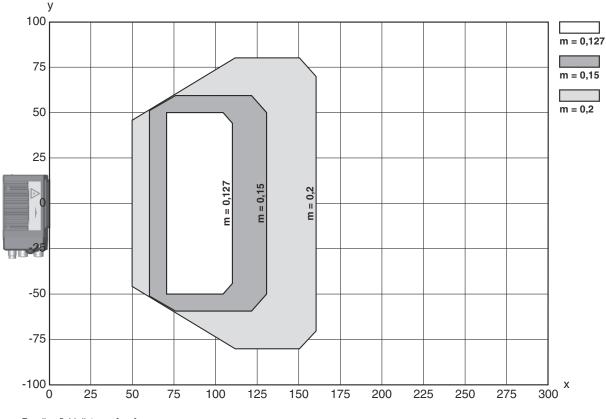
**Connection 1** 

Function	BUS IN
	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

A Optical axisB M4 thread (5 mm deep)

### Diagrams

### Reading field curve



x Reading field distance [mm]

y 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 NET	Green, flashing	Initialization
	Green, continuous light	Bus operation ok
	Red, flashing	Communication error
	Red, continuous light	Bus error

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### 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

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Note

✤ A list with all available device types can be found on the Leuze website at www.leuze.com.

### Notes

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### Observe intended use!

rightarrow This product is not a safety sensor and is not intended as personnel protection.

- $\Rightarrow$  The product may only be put into operation by competent persons.
- Solve the product in accordance with its intended use.

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### Accessories

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## 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
Ŵ	50135074	KS ET-M12-4A-P7- 050	Connection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connector, LED: No Connection 2: Open end Shielded: Yes Cable length: 5.000 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
	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: 5,000 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

### Connection technology - Connection boxes

 Part no.	Designation	Article	Description
50120796 *	MK 358	Connection unit	Suitable for: BCL 358i Interface: EtherNet IP Number of connections: 4 Piece(s) Connection: Terminal
50120797 *	MS 358	Connection unit	Suitable for: BCL 358i Interface: EtherNet IP Number of connections: 4 Piece(s) Connection: Connector, M12

\* Necessary accessories, please order separately

### Accessories



### 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
ST.	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

### Services

	Part no.	Designation	Article	Description
D-	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

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	Part no.	Designation	Article	Description
y; U	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
6	S A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page.