

## Technical data sheet

### Stationary bar code reader

Part no.: 50143262

BCL 92 SM 302



For illustration purposes only

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CE CDRH **RS**232

UL  
LISTED

UK  
CA

## Technical data

### Basic data

Series	BCL 92
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### Functions

Functions	Alignment mode
	AutoConfig
	I/O
	LED indicator
	Multiple read
	Output format selectable
	Reading gate control
	Reference code comparison

### Read data

Code types, readable	2/5 Interleaved
	Codabar
	Code 128
	Code 32
	Code 39
	Code 93
	EAN 128
	EAN 8/13
	EAN Addendum
	EAN/UPC
	Pharmacode (available upon consultation)
	UPC-A
	UPC-E
	Scanning rate, typical

### Optical data

Reading distance	40 ... 275 mm
Light source	Laser, Red
Wavelength	655 nm
Laser class	1, in accordance with IEC 60825-1:2014 (EN 60825-1:2014)
Transmitted-signal shape	Continuous
Usable opening angle (reading field opening)	66 °
Modulus size	0.165 ... 0.5 mm
Reading method	Line scanner
Scanning rate	600 scans/s
Beam deflection	Via rotating polygon wheel
Light beam exit	Front

### Electrical data

Protective circuit	Short circuit protected
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#### Performance data

Supply voltage $U_B$	10 ... 30 V, DC
Current consumption, max.	250 mA

#### Inputs

Number of digital switching inputs	2 Piece(s)
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#### Switching inputs

Voltage type	DC
Switching voltage	12 ... 30 V DC +

#### Outputs

Number of digital switching outputs	2 Piece(s)
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### Switching outputs

Voltage type	DC
Switching voltage	10 ... 30V DC, 20mA

#### Switching output 1

Switching element	Transistor, NPN
Function	configurable

#### Switching output 2

Switching element	Transistor, NPN
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### Interface

Type	RS 232
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#### RS 232

Function	Process
Transmission speed	4,800 ... 57,600 Bd
Data format	Adjustable
Start bit	1
Data bit	7,8
Stop bit	1.2
Parity	Adjustable
Transmission protocol	Adjustable
Data encoding	ASCII HEX

### Service interface

Type	RS 232
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#### RS 232

Function	Service
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### Connection

Number of connections	1 Piece(s)
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#### Connection 1

Function	Data interface
	Signal IN
	Signal OUT
	Voltage supply
Type of connection	Cable with Sub-D
Cable length	800 mm
Sheathing material	PVC
Cable color	Black
Wire cross section	0.095 mm <sup>2</sup>
Type	Male
No. of pins	15 -pin

### Mechanical data

Design	Cubic
Dimension (W x H x L)	62 mm x 23.8 mm x 56.9 mm
Housing material	Metal
Metal housing	Diecast zinc
Lens cover material	Glass
Net weight	210 g
Housing color	Red
	Silver
Type of fastening	Fastening thread

## Technical data

### Operation and display

Type of display	LED
Number of LEDs	2 Piece(s)

### Environmental data

Ambient temperature, operation	5 ... 40 °C
Ambient temperature, storage	-20 ... 60 °C
Relative humidity (non-condensing)	0 ... 90 %
Extraneous light protection, max.	2,000 lx

### Certifications

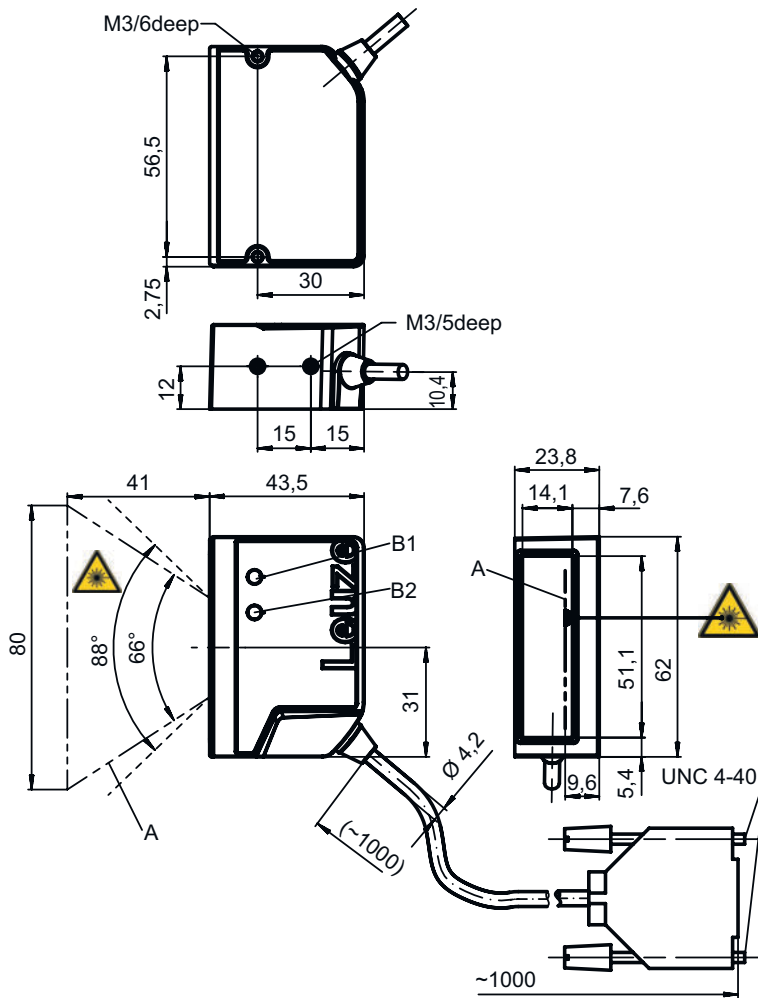
Degree of protection	IP 54
Protection class	III
Certifications	c UL US
Test procedure for EMC in accordance with standard	EN 61326-1:2013-01 FCC 15-CFR 47 Part 15 (09-07-2015) Limits Class B
Test procedure for shock in accordance with standard	IEC 60068-2-27, test Ea
Test procedure for vibration in accordance 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
ETIM 5.0	EC002550
ETIM 6.0	EC002550
ETIM 7.0	EC002550
ETIM 8.0	EC002550
ETIM 9.0	EC002550

# Dimensioned drawings

All dimensions in millimeters



- A Laser beam
- B1 Decode LED
- B2 Status LED

NOTE For exact positioning of the laser beam in the application, the scanner must be aligned.

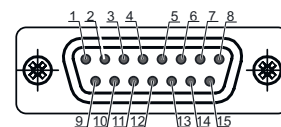
## Electrical connection

### Connection 1

<b>Function</b>	Data interface
	Signal IN
	Signal OUT
	Voltage supply
<b>Type of connection</b>	Cable with Sub-D
<b>Cable length</b>	800 mm
<b>Sheathing material</b>	PVC
<b>Cable color</b>	Black
<b>Wire cross section</b>	0.095 mm <sup>2</sup>
<b>Type</b>	Male
<b>No. of pins</b>	15 -pin
<b>Connector housing</b>	FE/SHIELD

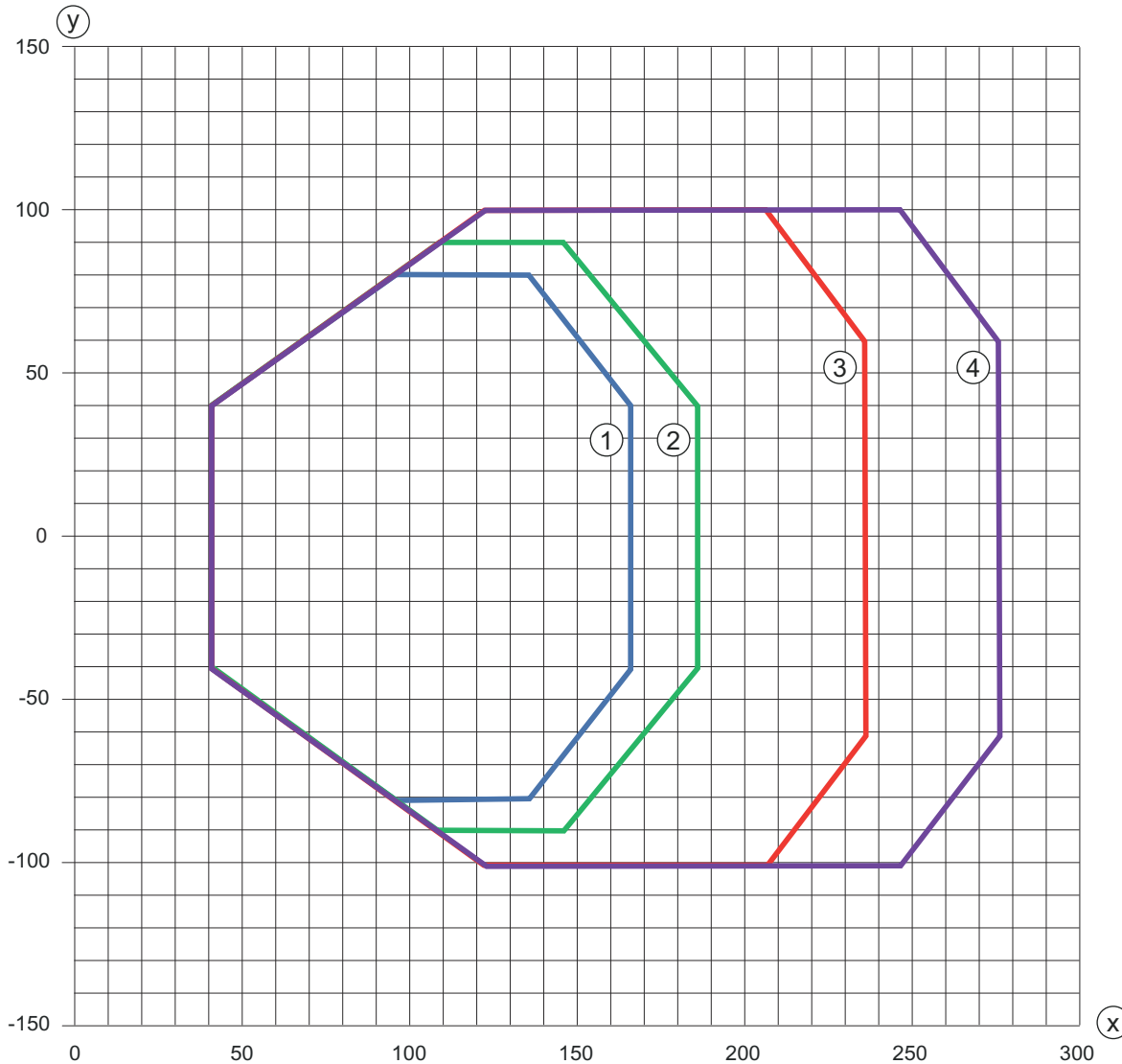
## Electrical connection

Pin	Pin assignment
1	Res.
2	SWIN 1
3	Res.
4	Res.
5	Res.
6	SWOUT 2
7	Res.
8	VIN
9	SWIN 2
10	SWOUT 1
11	RXD
12	TXD
13	Res.
14	Res.
15	GNDIN



# Diagrams

## Reading field curve



x Reading field distance [mm]

y Reading field width [mm]

- 1 Resolution M = 0.165 mm (code type: Code 128)
- 2 Resolution M = 0.2 mm (code type: Code 128)
- 3 Resolution M = 0.3 mm (code type: 2/5 Interleaved)
- 4 Resolution M = 0.5 mm (code type: 2/5 Interleaved)

## Operation and display

LED	Display	Meaning
1 PWR	Green, flashing	Initialization
	Green, continuous light	Operational readiness
	Red, flashing	Warnings
	Red, continuous light	Error
	Orange, flashing	Service operation active
2 GOOD READ	Green, 200ms on	Reading successful
	Red, 200ms off	No reading result
	Orange, continuous light	Reading gate active

# Part number code

Part designation: **BCL XX YZ ABC**

<b>BCL</b>	<b>Operating principle</b> BCL: bar code reader
<b>XX</b>	<b>Series</b> 92: RS 232
<b>Y</b>	<b>Scanning principle</b> S: line scanner (single line)
<b>Z</b>	<b>Optics</b> M: Medium Density (medium distance)
<b>A</b>	<b>Electrical connection</b> 3: SUB-D 15-pin 8: M12 connector, 12-pin
<b>B</b>	<b>Cable length</b> 0: 0.8 m 1: 3.0 m
<b>C</b>	<b>Beam exit</b> 0: Perpendicular 2: Front

Note	
	<ul style="list-style-type: none"> <li>A list with all available device types can be found on the Leuze website at <a href="http://www.leuze.com">www.leuze.com</a>.</li> </ul>

## Notes


<b>Observe intended use!</b>	
	<ul style="list-style-type: none"> <li>This product is not a safety sensor and is not intended as personnel protection.</li> <li>The product may only be put into operation by competent persons.</li> <li>Only use the product in accordance with its intended use.</li> </ul>

<b>For UL applications:</b>	
	<ul style="list-style-type: none"> <li>For UL applications, use is only permitted in Class 2 circuits in accordance with the NEC (National Electric Code).</li> </ul>


<b>WARNING! LASER RADIATION – CLASS 1 LASER PRODUCT</b>	
	<p>The device satisfies the requirements of IEC/EN 60825-1:2014 safety regulations for a product of <b>laser class 1</b></p> <ul style="list-style-type: none"> <li>Observe the applicable statutory and local laser protection regulations.</li> <li>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.</li> </ul>

## Accessories

### Mounting technology - Mounting brackets

	Part no.	Designation	Article	Description
	50118542	BT 200M.5	Mounting bracket	Design of mounting device: Angle, L-shape Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type, Suited for M3 screws Type of mounting device: Adjustable Material: Stainless steel

### Mounting technology - Rod mounts

	Part no.	Designation	Article	Description
	50119331	BTU 900M-D12	Mounting system	Design of mounting device: Mounting system Fastening, at system: For 12 mm rod, Sheet-metal mounting Mounting bracket, at device: Screw type Type of mounting device: Clampable, Swiveling, Turning, 360° Material: Metal

#### Note



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