

## Technical data sheet Stationary bar code reader

Part no.: 50143266

BCL 92 SM 802

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- Dimensioned drawings
- Electrical connection
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- Part number code
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Figure can vary



**RS232**



## 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	600 scans/s

### Optical data

Reading distance	40 ... 275 mm
Light source	Laser, Red
Laser light 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 connector
Cable length	800 mm
Sheathing material	PVC
Cable color	Black
Number of conductors	12 -wire
Wire cross section	0.095 mm <sup>2</sup>
Thread size	M12
Type	Male
Material	Metal
No. of pins	12 -pin
Encoding	A-coded

## Technical data

### Mechanical data

Design	Cubic
Dimension (W x H x L)	62 mm x 23.8 mm x 43.5 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

### 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

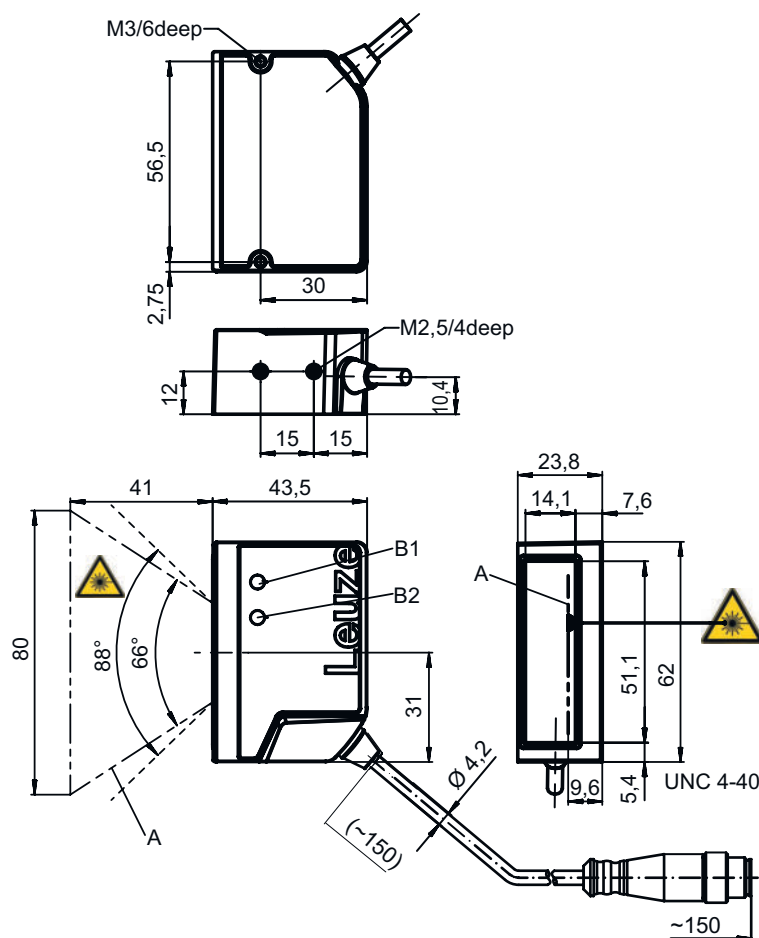
Degree of protection	IP 54
Protection class	III
Certifications	c UL US
Test procedure for EMC in accordance with standard	EN 61326-1:2013-01 FCC 15-CFR 47 Part 15 (09-07-2015) Limits Class B
Test procedure for shock in accordance with standard	IEC 60068-2-27, test Ea
Test procedure for vibration in accordance with standard	IEC 60068-2-6, test Fc

### Classification

Customs tariff number	84719000
eCl@ss 5.1.4	27280102
eCl@ss 8.0	27280102
eCl@ss 9.0	27280102
eCl@ss 10.0	27280102
eCl@ss 11.0	27280102
ETIM 5.0	EC002550
ETIM 6.0	EC002550
ETIM 7.0	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.

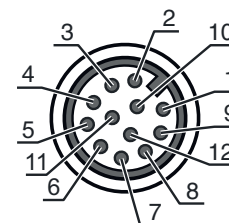
## Electrical connection

### Connection 1

Function	Data interface
	Signal IN
	Signal OUT
	Voltage supply
Type of connection	Cable with connector
Cable length	800 mm
Sheathing material	PVC
Cable color	Black
Number of conductors	12 -wire
Wire cross section	0.095 mm <sup>2</sup>
Thread size	M12
Type	Male
Material	Metal
No. of pins	12 -pin
Encoding	A-coded
Connector housing	FE/SHIELD

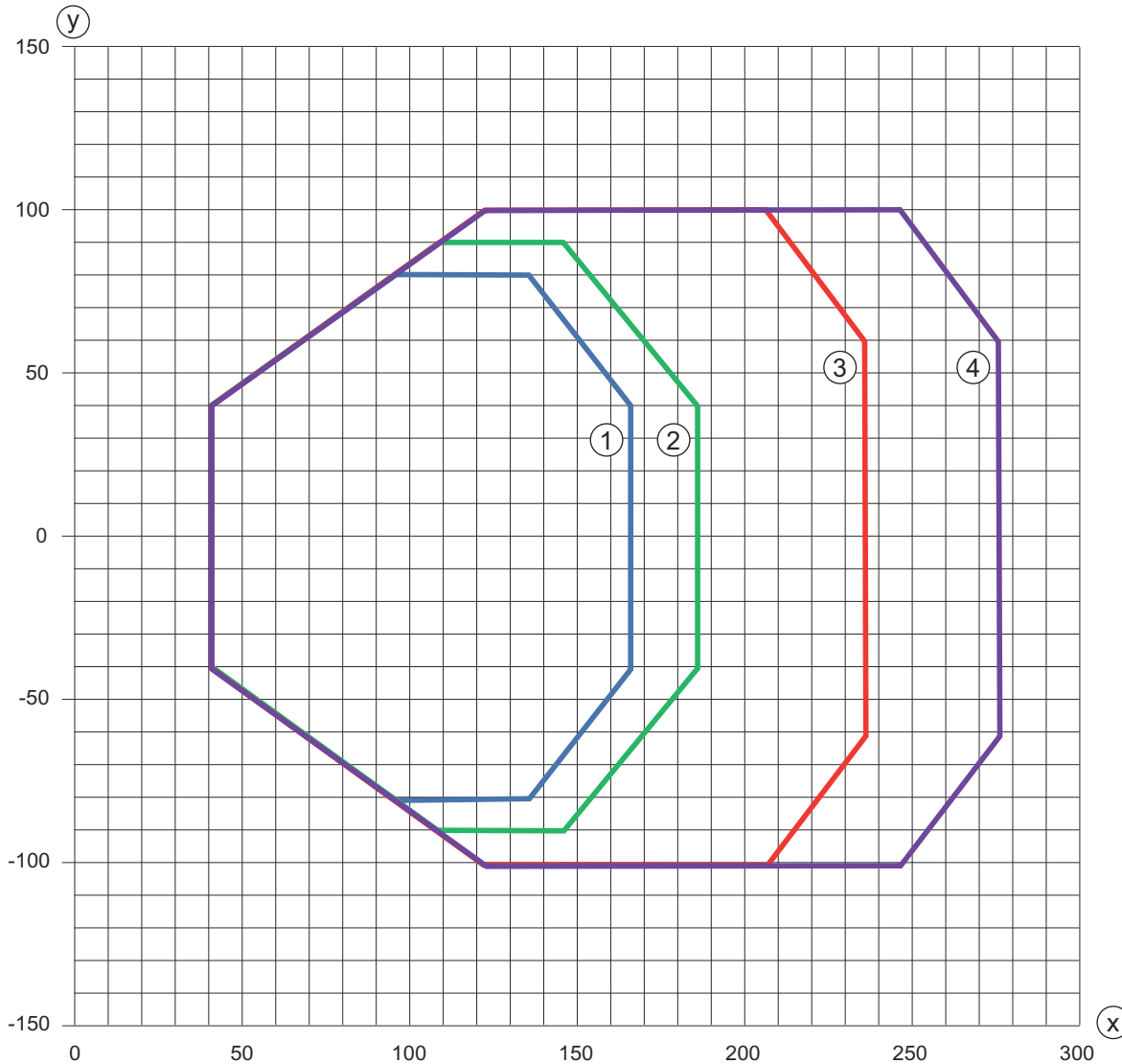
## Electrical connection

Pin	Pin assignment
1	VIN
2	GNDIN
3	SWIN 1
4	SWOUT 1
5	FE
6	n.c.
7	Res.
8	Res.
9	RXD
10	TXD
11	SWIN 2
12	SWOUT 2



# 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


! Observe intended use!	
	<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>

! For UL applications:	
	<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>

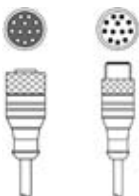

WARNING! LASER RADIATION – CLASS 1 LASER PRODUCT	
	<p>The device satisfies the requirements of IEC 60825-1:2014 (EN 60825-1:2014) safety regulations for a product of <b>laser class 1</b></p> <ul style="list-style-type: none"> <li>Observe the applicable statutory and local laser protection regulations.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


### Connection technology - Connection unit

	Part no.	Designation	Article	Description
	50130109	MA 150	Modular connection unit	Supply voltage: 18 ... 30 V Current consumption, max.: 150 mA Connections: 5 Piece(s) Degree of protection: IP 67


### Connection technology - Interconnection cables

	Part no.	Designation	Article	Description
	50130284	KDS S-M12-CA-M12-CA-P1-020	Interconnection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 12 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 12 -pin Shielded: Yes Cable length: 2,000 mm Sheathing material: PUR
	50130285	KDS S-M12-CA-M12-CA-P1-050	Interconnection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 12 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 12 -pin Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR

### 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.