

Technical data sheet Stationary bar code reader

Part no.: 50143261

BCL 92 SM 300



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CE CDRH **RS**232

c UL US
LISTED

UK
CA

Technical data

Basic data

| | |
|--------|--------|
| Series | BCL 92 |
|--------|--------|

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 | 25 ... 260 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 | Lateral |

Electrical data

| | |
|--------------------|-------------------------|
| Protective circuit | Short circuit protected |
|--------------------|-------------------------|

Performance data

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

Inputs

| | |
|------------------------------------|------------|
| Number of digital switching inputs | 2 Piece(s) |
|------------------------------------|------------|

Switching inputs

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

Outputs

| | |
|-------------------------------------|------------|
| Number of digital switching outputs | 2 Piece(s) |
|-------------------------------------|------------|

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 |
|-------------------|-----------------|

Interface

| | |
|------|--------|
| Type | RS 232 |
|------|--------|

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 |
|------|--------|

RS 232

| | |
|----------|---------|
| Function | Service |
|----------|---------|

Connection

| | |
|-----------------------|------------|
| Number of connections | 1 Piece(s) |
|-----------------------|------------|

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 ² |
| 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

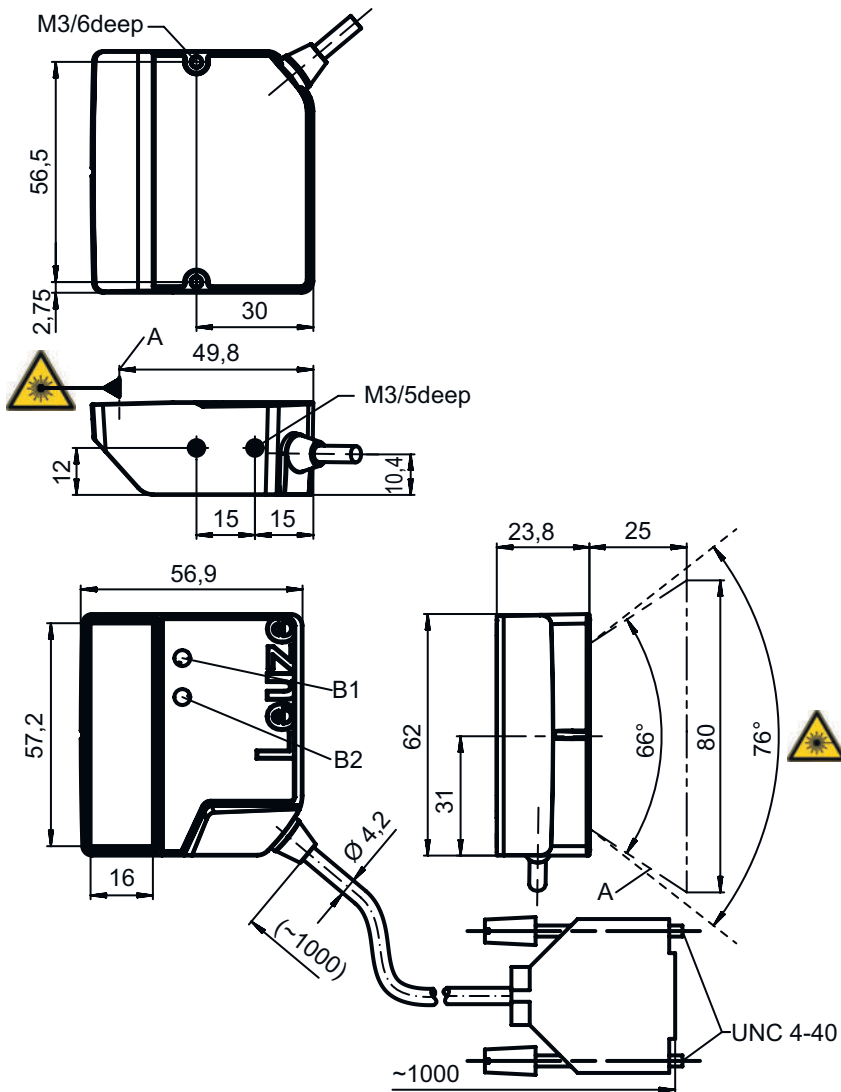
| | |
|--|--|
| Degree of protection | IP 54 |
| Protection class | III |
| Approvals | c UL US |
| Test procedure for EMC in accordance with standard | EN 61326-1:2013-01 FCC 15-CFR 47 Part 15 (09-07-2015) Limits Class B |
| Test procedure for shock in accordance with standard | IEC 60068-2-27, test 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 |
| ECLASS 15.0 | 27280102 |
| ECLASS 16.0 | 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 |
| UNSPSC 26.08 | 43211701 |

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.

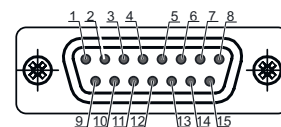
Electrical connection

Connection 1

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

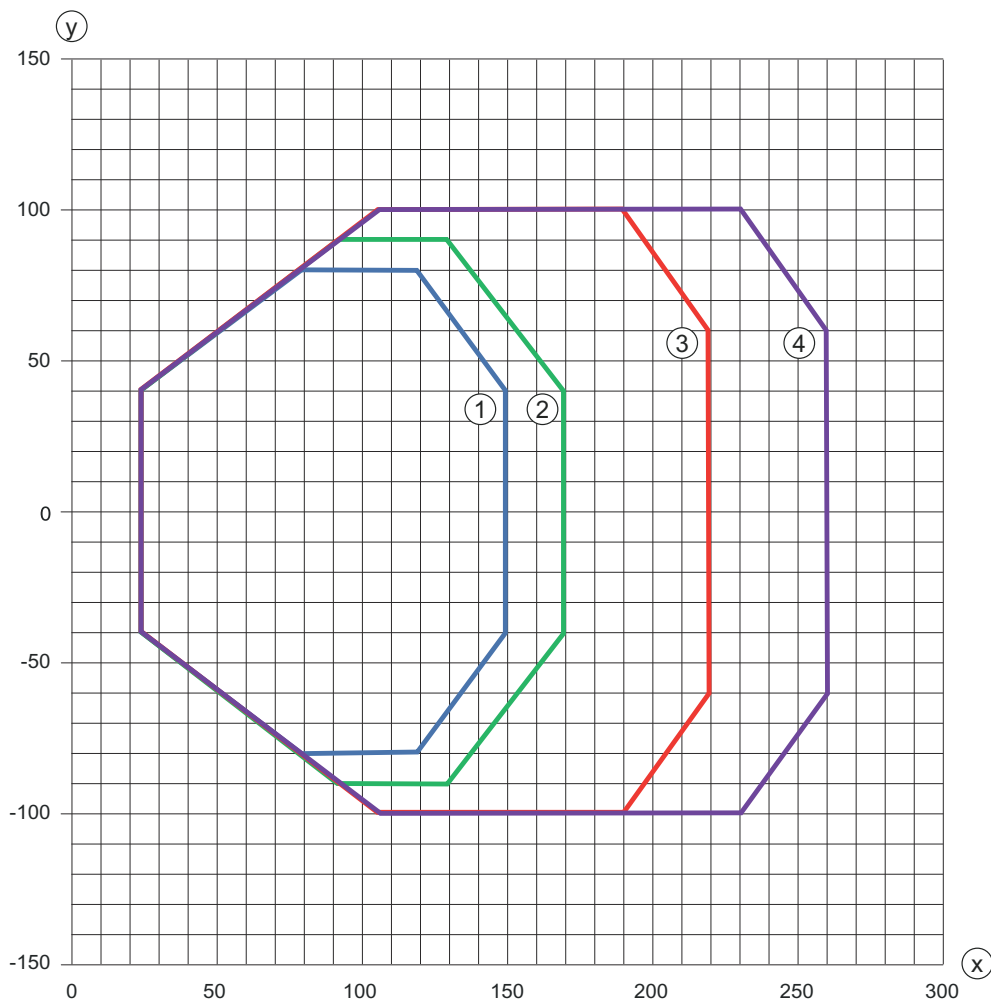
Electrical connection

| 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**

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

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

Notes


| ⚠ Observe intended use! | |
|-------------------------|---|
| | <ul style="list-style-type: none"> 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. |

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


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

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 | Contains: 2x M4 x 20 screw, 2x M4 x 25 screw, 2x washers with Ø 4,3 mm each 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.