

## Technical data sheet Stationary bar code reader

Part no.: 50131538

BCL 148 V 340 B

### Contents

- Technical data
- Dimensioned drawings
- Electrical connection
- Diagrams
- Notes



For illustration purposes only



## Technical data

### Basic data

Series	BCL 148
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### Functions

Software functions	Focus adjustment
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### Read data

Code types, readable	2/5 IATA
	2/5 Industrial
	2/5 Interleaved
	Add-On (EAN)
	Codabar
	Code 128
	Code 39
	EAN 128
	EAN/UPC
	Pharma Code
Scanning rate, typical	750 scans/s

### Optical data

Reading distance	30 ... 310 mm
Light source	Laser, Red
Wavelength	650 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)	55 °
Modulus size	0.127 ... 0.5 mm
Reading method	Line scanner
Scanning rate	750 scans/s
Beam deflection	Via rotating polygon wheel
Light beam exit	Lateral

### Electrical data

Protective circuit	No information
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#### Performance data

Supply voltage $U_B$	18 ... 30 V, DC
Power consumption, max.	9 W

#### Inputs

Number of digital switching inputs	1 Piece(s)
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#### Switching inputs

Voltage type	DC
Switching voltage	18 ... 30 V

### Interface

Type	RS 232, RS 485
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### RS 232

Function	Host interface
Transmission speed	110 ... 57,600 Bd
Data format	Adjustable
Start bit	1
Data bit	7,8,9
Stop bit	1.2
Parity	Adjustable
Transmission protocol	Adjustable
Data encoding	ASCII HEX

### RS 485

Function	Host interface
Transmission speed	110 ... 57,600 Bd
Data format	Adjustable
Start bit	1
Data bit	7, 8, 9 data bits
Stop bit	1, 2 stop bits
Parity	Adjustable
Transmission protocol	Adjustable
Data encoding	ASCII HEX

### Service interface

Type	RS 232
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### RS 232

Function	Service
Transmission speed	9,600 bit/s

### Connection

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

Function	Data interface
	Signal IN
	Voltage supply
Type of connection	Sub-D
Cable length	900 mm
Sheathing material	PUR
Cable color	Black
Wire cross section	0.13 mm <sup>2</sup>
Type	Male
No. of pins	15 -pin

### Mechanical data

Design	Cubic
Dimension (W x H x L)	71 mm x 38 mm x 118.5 mm
Housing material	Metal
Metal housing	Diecast zinc
Lens cover material	Glass
Net weight	615 g
Housing color	Black
Type of fastening	Fastening thread

### Environmental data

Ambient temperature, operation	5 ... 40 °C
Ambient temperature, storage	-20 ... 70 °C
Relative humidity (non-condensing)	10 ... 85 %

## Technical data

### Certifications

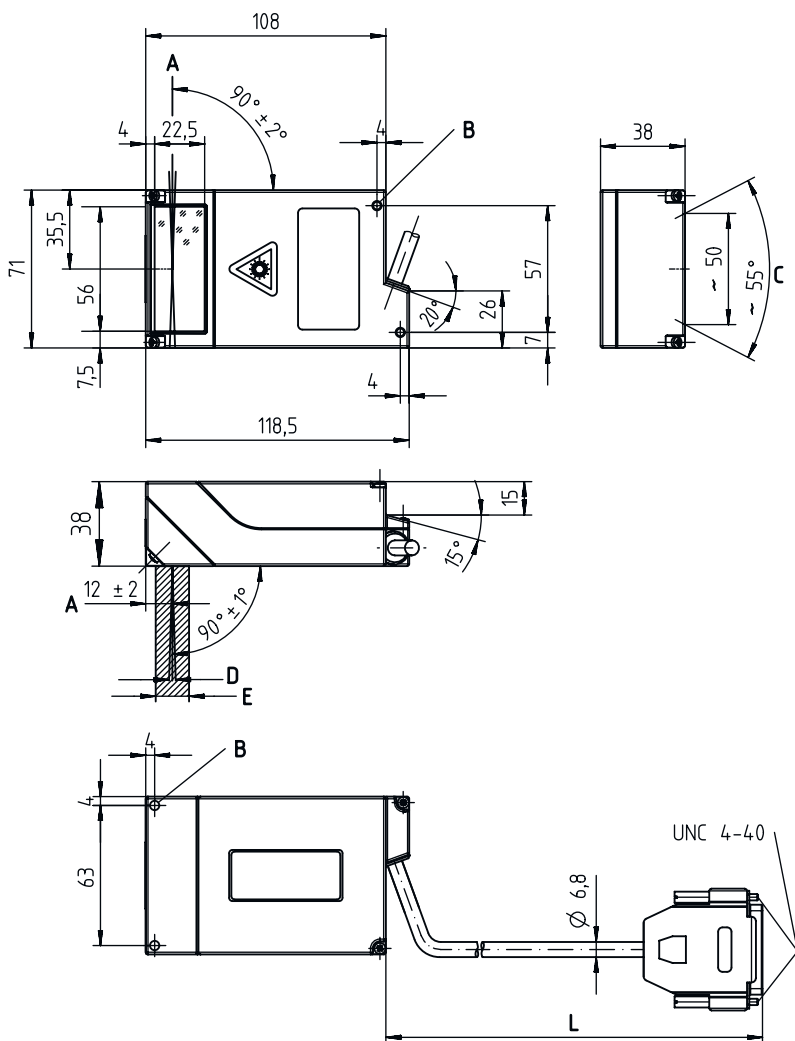
Degree of protection	IP 65
Protection class	III
Approvals	CSA
	UL
Test procedure for EMC in accordance with standard	EN 61326-1

### 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 Optical axis
- B M4 mounting thread - 4 mm deep (4x)
- C Laser beam
- D Rastering max. 3 mm at a distance of 200 mm
- E Optical beam path, approx. 15 mm wide
- L Cable length 900 mm

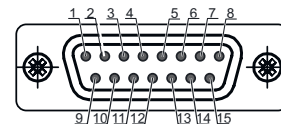
## Electrical connection

### Connection 1

Function	Data interface
	Signal IN
	Voltage supply
Type of connection	Sub-D
Cable length	900 mm
Sheathing material	PUR
Cable color	Black
Wire cross section	0.13 mm <sup>2</sup>
Type	Male
No. of pins	15 -pin

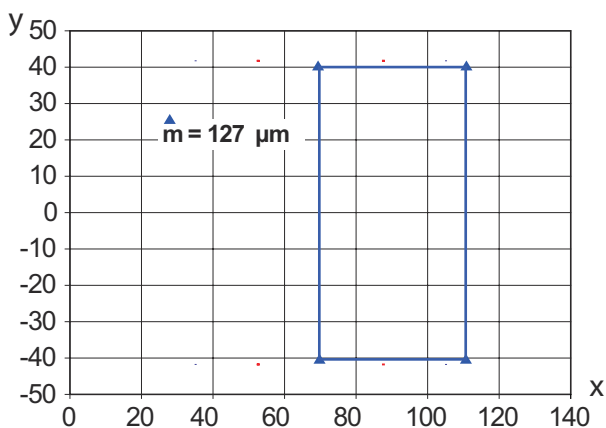
# Electrical connection

Pin	Pin assignment
1	GND
2	SWIN 1
3	RS 485 A
4	RS 485 B
5	/MA0
6	DNC (do not connect)
7	DNC (do not connect)
8	VIN
9	/PROT
10	DNC (do not connect)
11	RXD232
12	TXD232
13	n.c.
14	n.c.
15	GNDIN



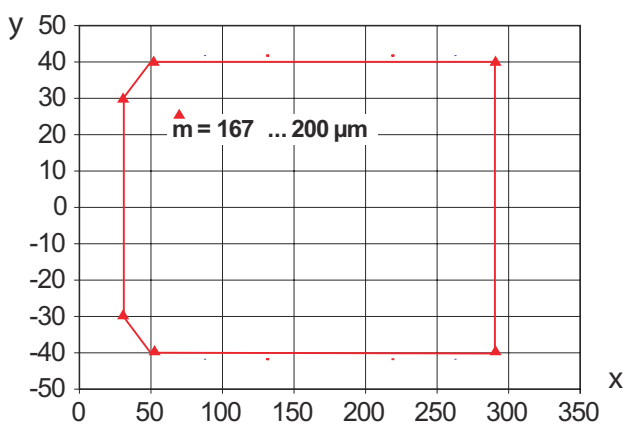
## Diagrams

Reading field curve for module  $m = 0.127$  mm



x Reading distance [mm]  
y Reading field width [mm]

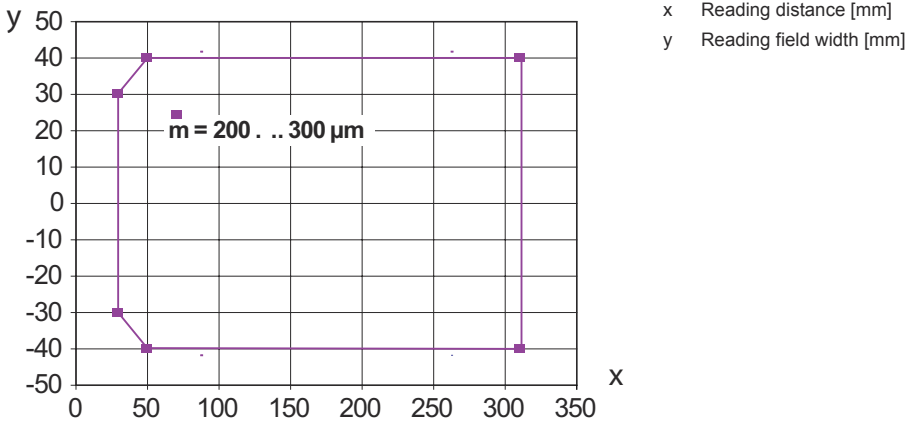
Reading field curve for module  $m = 0.167 \dots 0,2$  mm



x Reading distance [mm]  
y Reading field width [mm]

# Diagrams

Reading field curve for module  $m = 0.2 \dots 0,3 \text{ mm}$



## 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.

**ATTENTION! LASER RADIATION – CLASS 1 LASER PRODUCT**

- The device satisfies the requirements of IEC/EN 60825-1:2014 safety regulations for a product of **laser class 1** and complies with 21 CFR 1040.10 except for conformance with IEC 60825-1 Ed. 3., as described in Laser Notice No. 56, dated May 8, 2019.
- 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.

**ATTENTION!**

- Supplied by LPS/NEC Class 2 only!