

## Technical data sheet Stationary bar code reader

Part no.: 50154393

CR110M2/R2 - 1300

### Contents

- Technical data
- Dimensioned drawings
- Electrical connection
- Diagrams
- Operation and display
- Notes
- Accessories



For illustration purposes only



## Technical data

### Basic data

Series	CR110
Chip	CCD

### Functions

Functions	Alignment mode
	I/O
	LED indicator
	Multiple read / MultiScan
	Output format selectable
	Reading gate control

### Read data

Code types, readable	2/5 Interleaved
	Codabar
	Code 128
	Code 39
	Code 93
	EAN 128
	EAN Addendum
	EAN/UPC
	Pharmacode
Scanning rate, typical	780 scans/s

### Optical data

Reading distance	20 ... 72 mm
Light source	LED, Red
Wavelength	624 nm
Transmitted-signal shape	Continuous
Usable opening angle (reading field opening)	71 °
Modulus size	0.15 ... 0.5 mm
Reading method	Line scanner
Scanning rate	780 scans/s
Beam deflection	Via prism
Light beam exit	Front

### Electrical data

Protective circuit	Polarity reversal protection
<b>Performance data</b>	
Supply voltage $U_B$	5 V, DC, -10 ... 10 %
Current consumption, max.	250 mA
<b>Inputs</b>	
Number of digital switching inputs	1 Piece(s)
<b>Switching inputs</b>	
Voltage type	DC
Switching voltage	5V DC
<b>Outputs</b>	
Number of digital switching outputs	1 Piece(s)
<b>Switching outputs</b>	
Voltage type	DC
Switching current, max.	20 mA
Switching voltage	5 ... 30 V DC, 20 mA

### Switching output 1

Switching element	Transistor, NPN
Switching principle	0 V switching

### Interface

Type	RS 232
<b>RS 232</b>	
Function	Process
Transmission speed	300 ... 115,200 Bd
Data format	Fixed
Start bit	1
Data bit	7,8
Stop bit	1.2
Parity	None
Transmission protocol	Adjustable
Data encoding	ASCII
	HEX

### Service interface

Type	RS 232
<b>RS 232</b>	
Function	Service

### Connection

Number of connections	1 Piece(s)
<b>Connection 1</b>	
Function	Data interface
	Signal IN
	Signal OUT
	Voltage supply
Type of connection	High-flex trailing cable for robust applications Number of bending cycles : 800,000 Minimum bending radius: 40 mm
Cable length	1,300 mm
Sheathing material	PUR
Cable color	Black
Number of conductors	6 -wire
Wire cross section	0.081 mm <sup>2</sup>
<b>Cable properties</b>	
AWG	28

### Mechanical data

Design	Cubic
Dimension (W x H x L)	55 mm x 20 mm x 47 mm
Housing material	Metal
Metal housing	Sheet metal plate shaped
Lens cover material	Plastic
Net weight	200 g
Housing color	Silver
Type of fastening	Fastening on back Side mounting with thread

### Operation and display

Type of display	LED
Number of LEDs	1 Piece(s)

## Technical data

### Environmental data

Ambient temperature, operation	0 ... 45 °C
Ambient temperature, storage	-25 ... 60 °C
Relative humidity (non-condensing)	90 %

### Certifications

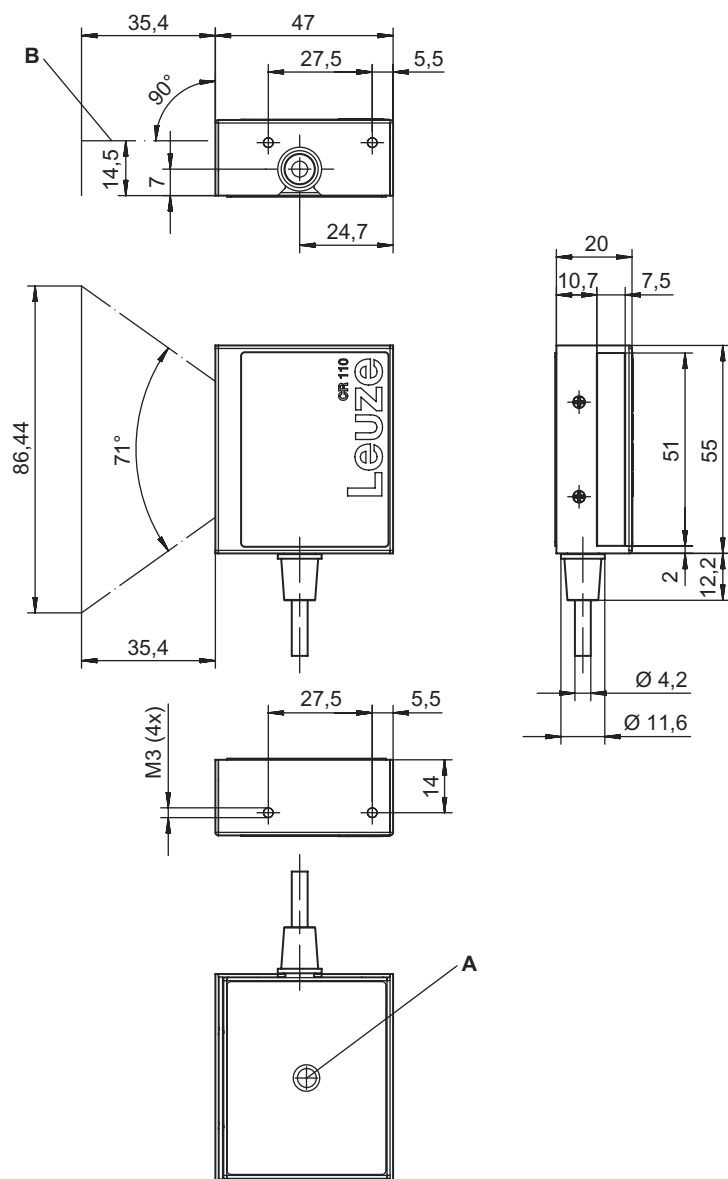
Degree of protection	IP 40
Protection class	III
Approvals	cUR us
Test procedure for EMC in accordance with standard	EN 55022
	EN 55024
	EN 61000-4-2, -3, -4, -6
	FCC 15-CFR 47 Part 15 (09-07-2015) Limits Class B

### 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 Status LED
  - B Optical axis
- Max. thread depth of the M3 fastening screws in the housing: **3mm!**

## Electrical connection

### Connection 1

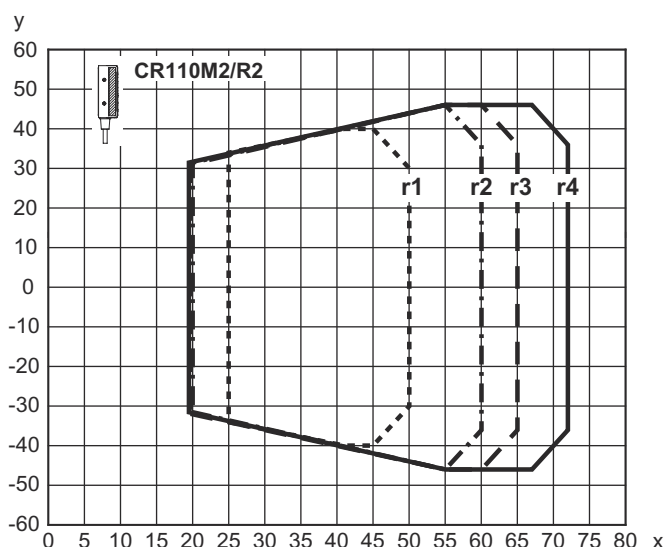
<b>Function</b>	Data interface
	Signal IN
	Signal OUT
	Voltage supply
<b>Type of connection</b>	High-flex trailing cable for robust applications Number of bending cycles : 800,000 Minimum bending radius: 40 mm
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# Electrical connection

Conductor color	Conductor assignment
Red	V+
Violet	GND
Black	SW OUT
Orange	SW IN
White	RS 232 Rx/D
Green	RS 232 Tx/D

## Diagrams

### Reading field



x Typical reading distance [mm]  
 y Typical reading field width [mm]

Code 128  
 Grade A

- r1 m=0.15mm (6 mil)
- r2 m=0.2mm (8 mil)
- r3 m=0.25mm (10 mil)
- r4 m=0.35/0.5mm (14/20 mil)

## Operation and display

LED	Display	Meaning
1	Orange, flashing	Service operation
	Orange, continuous light	Reading gate active
	Green, 1x flashing	Reading successful
	Red, continuous light	Error
	Red, flashing	Warning


## 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.

## Accessories

### Start-up/diagnosis

	Part no.	Designation	Article	Description
	50128204	MA-CR	Module	Description: Adapter circuit board for laboratory and test purposes Type of interface: RS 232

#### Note



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