

Technical data sheet Stationary bar code reader

Part no.: 50127450

CR100M2/R2

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For illustration purposes only



Technical data

Basic data

| | |
|--------|-------|
| Series | CR100 |
| 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 |
| Scanning rate, typical | 700 scans/s |
| Bar codes per reading gate, max. number | 63 Piece(s) |

Optical data

| | |
|--|-----------------|
| Reading distance | 20 ... 72 mm |
| Light source | LED, Red |
| Wavelength | 660 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 | 700 scans/s |
| Beam deflection | Via prism |
| Light beam exit | Front |

Electrical data

| | |
|--------------------|------------------------------|
| Protective circuit | Polarity reversal protection |
|--------------------|------------------------------|

Performance data

| | |
|---------------------------|-------------------|
| Supply voltage U_B | 4.9 ... 5.4 V, DC |
| Current consumption, max. | 250 mA |

Inputs

| | |
|------------------------------------|------------|
| Number of digital switching inputs | 1 Piece(s) |
|------------------------------------|------------|

Switching inputs

| | |
|-------------------|-------|
| Voltage type | DC |
| Switching voltage | 5V DC |

Outputs

| | |
|-------------------------------------|------------|
| Number of digital switching outputs | 1 Piece(s) |
|-------------------------------------|------------|

Switching outputs

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

RS 232

| | |
|-----------------------|---------------------|
| Function | Process |
| Transmission speed | 4,800 ... 57,600 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 |
|------|--------|

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 |
| Cable length | 2,000 mm |
| Sheathing material | PUR |
| Cable color | Black |
| Number of conductors | 6 -wire |
| Wire cross section | 0.081 mm ² |

Cable properties

| | |
|-----|----|
| 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 | Red |
| | 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

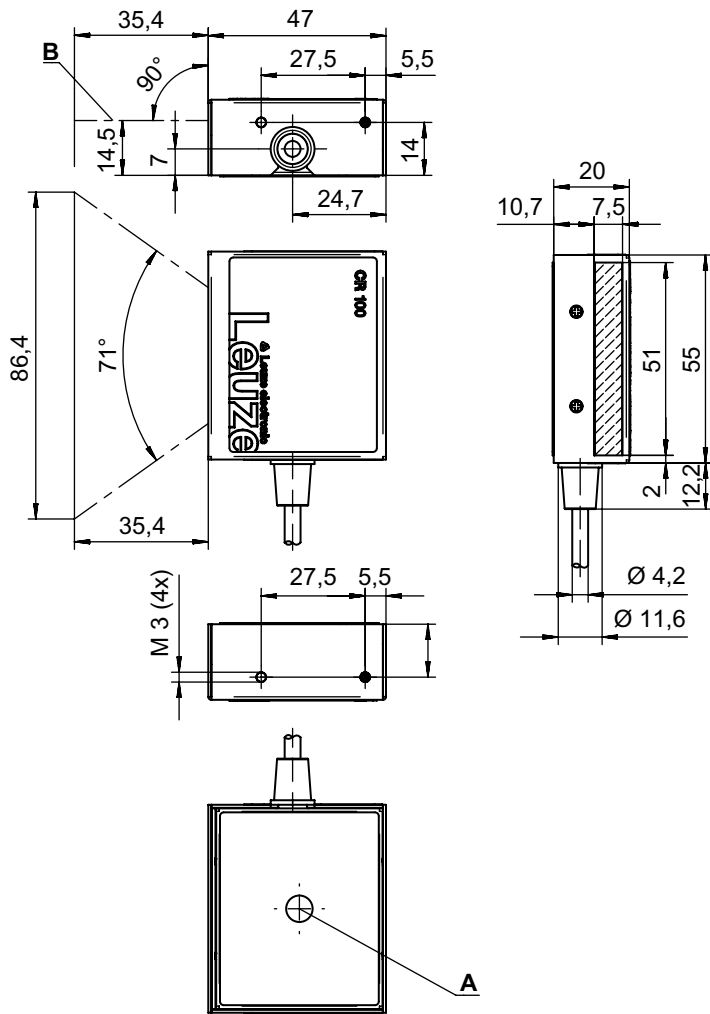
| | |
|--|--------------------------|
| Degree of protection | IP 40 |
| Protection class | III |
| Approvals | cUR us |
| Test procedure for EMC in accordance with standard | EN 55022 |
| | EN 55024 |
| | EN 61000-4-2, -3, -4, -6 |

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

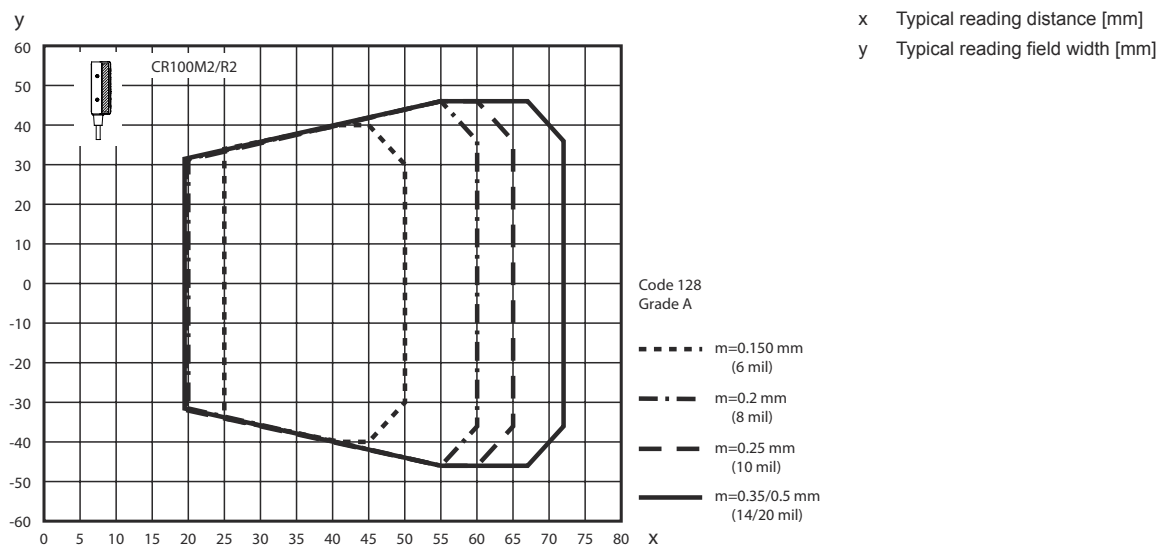
| | |
|----------------------|-----------------------|
| Function | Data interface |
| | Signal IN |
| | Signal OUT |
| | Voltage supply |
| Type of connection | Cable |
| Cable length | 2,000 mm |
| Sheathing material | PUR |
| Cable color | Black |
| Number of conductors | 6 -wire |
| Wire cross section | 0.081 mm ² |

Electrical connection

| Conductor color | Conductor assignment |
|-----------------|----------------------|
| Red | V+ |
| Violet | GND |
| Black | SW OUT |
| Orange | SW IN |
| White | RS 232 RxD |
| Green | RS 232 TxD |

Diagrams

Reading field



Operation and display

| LED | Display | Meaning |
|-----|--------------------------|---------------------|
| 1 | Orange, flashing | Initialization |
| | Orange, continuous light | Reading gate active |
| | Green, continuous light | Reading successful |
| | Red, continuous light | No reading result |


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.