

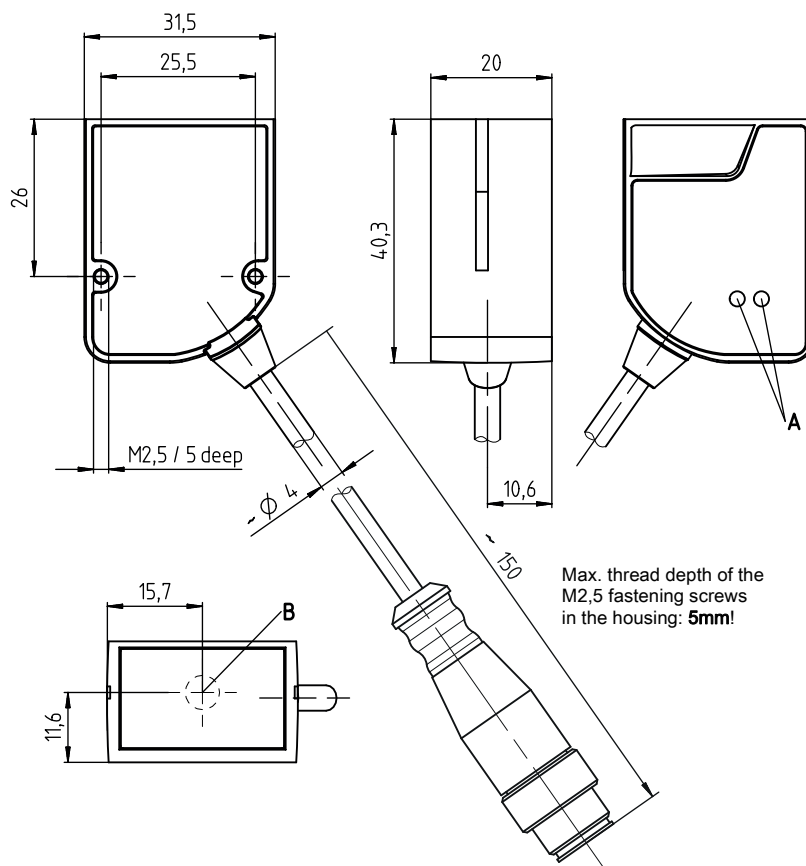
en 2021/06/14 50137586-02



30 ... 425mm

- CMOS Imager for all common 1D and 2D codes
- Very small construction
- Integrated decoder
- RS232 or USB 2.0 interface
- Metal housing
- Simple mounting and fastening

Dimensioned drawing



- A** Status LEDs
- B** Center of optical axis

Electrical connection

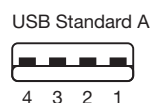
RS232 cable

| Core color | Signal | Description | IN / OUT |
|------------|------------|--------------------------------|----------|
| Red | +5 V DC | Voltage supply 5 V DC | IN |
| Violet | GND | Voltage supply 0 V DC / ground | IN |
| Black | SW OUT | Switching output | OUT |
| Orange | SW IN | Switching input | IN |
| White | RS 232 RxD | Serial interface | IN |
| Green | RS 232 TxD | Serial interface | OUT |

RS232 - M12 connector

| | | |
|-----------|---|-------|
| 5V DC + | 1 | WS/WH |
| SW IN | 2 | BR/BN |
| GND | 3 | GN/GN |
| SW OUT | 4 | GE/YE |
| NC | 5 | GR/GY |
| RS232 RxD | 6 | RS/PK |
| RS232 TxD | 7 | BL/BU |
| FE/Shield | 8 | RT/RD |

USB



| PIN | Signal |
|-----|----------|
| 1 | + 5 V DC |
| 2 | Data- |
| 3 | Data+ |
| 4 | GND |

Accessories:

(available separately)

- Modular interface adapter MA-CR (part no. 50128204)
- M12 connection cable, axial socket, 8-pin A-coded, cable length 2m, shielded KD S-M12-8A-P1-020 (part no. 50135127)

We reserve the right to make changes • PAL_DCR55_en_50137586-02.fm

Technical data

Optical data

| | |
|---------------------------------|--|
| Optical system | CMOS Imager, Rolling Shutter (1280 x 960) |
| Reading field | 30 ... 425mm |
| Resolution | 1D-codes: m = 0.190mm (7.5mil), distance dependent 2D-codes: m = 0.127mm (5mil), distance dependent |
| Illumination light source | Integrated LED (visible red light) |
| Target LED light source (Aimer) | Integrated LED (visible blue light) |
| Contrast | Min. 15% |

Code specifications

| | |
|---------------|--|
| Code types | 1D: BC412, Codabar, Code 11, Code 32, Code 39, Code 93, Code 128, IATA 2 of 5, Interleaved 2 of 5, GS1 DataBar, Hong Kong 2 of 5, Matrix 2 of 5, MSI Plessey, NEC 2 of 5, Pharmacode, Plessey, Straight 2 of 5, Telepen, Trioptic, UPC/EAN/JAN |
| | Stacked 1D: Codablock F, Code 49, GS1 Composite (CC-A/CC-B/CC-C), MicroPDF, PDF417 |
| | 2D: Aztec Code, Data Matrix, Han Xin, Micro QR Code, QR Code |
| Postal Codes: | Australian Post, Canada Post, Intelligent Mail, Japan Post, KIX Code, Korea Post, Planet, Postnet, UK Royal Mail, UPU ID-tags |

Electrical data

| | |
|----------------------------------|--------------------|
| Operating voltage U _B | 4.75 ... 5.25 V DC |
| Current consumption | Max. 420mA |

Indicators

| | |
|------|---|
| LEDs | 1 device status (PWR), 1 read status (GOOD READ) |
|------|---|

Interfaces

| | |
|--------------------|---|
| Interface type | RS232 or USB 2.0 (virtual COM, HID) |
| Baud rate RS232 | 300 ... 115,200Bd, configurable |
| Data formats RS232 | Configurable |
| Trigger | Switching input (RS232 only, active/not active = 0V/+5V or not connected) or Presentation Mode (Motion Control) |
| Switching output | RS232: NPN transistor output, max. 20mA (Good Read) |

Mechanical data

| | |
|------------------------|---|
| Housing | Metal, die-cast aluminum |
| Weight | 45g (without cable) |
| Dimensions (H x W x D) | 20x31.5x40.3mm |
| Fastening | 2x M2.5 bore holes, 5 mm deep |
| RS232 connection type: | Fixed cable, 2m long, 6 x 0.081mm ² (6 x 28 AWG) or approx. 0.15m cable with M12 connector, 8-pin, A-coded |
| USB: | Fixed cable, 1.8 m long, with standard A USB connector |

Environmental data

| | |
|---------------------------------|--|
| Ambient temperature (operation) | 0°C ... +50°C |
| Ambient temperature (storage) | -20 °C ... -60 °C |
| Air humidity | 10 ... 90% rel. humidity, non-condensing |
| Degree of protection | IP54 |
| Electromagnetic compatibility | EN 61326-1:2013-1 |
| Conformity with standards | CE |
| Certifications | RoHs, UL 62368-1, CAN/CSA C22.2 No. 62368-1-14 |

Reading fields

| Code type / resolution m | Typical reading distance [mm] ([inch]) | |
|---------------------------------|--|------------|
| Code 39 / 0.190mm (7.5mil) | 50 (2.0) | 245 (9.6) |
| GS1 Databar / 0.267mm (10.5mil) | 35 (1.4) | 225 (8.9) |
| UPC / 0.330mm (13mil) | 40 (1.5) | 370 (14.6) |
| PDF417 / 0.147mm (5.8mil) | 85 (3.3) | 155 (6.1) |
| PDF417 / 0.170mm (6.7mil) | 65 (2.6) | 175 (6.9) |
| Data Matrix / 0.127mm (5mil) | 75 (3.0) | 90 (3.5) |
| Data Matrix / 0.160mm (6.3mil) | 70 (2.8) | 135 (5.3) |
| Data Matrix / 0.254mm (10mil) | 50 (2.0) | 205 (8.1) |
| Data Matrix / 0.528mm (20.8mil) | 30 (1.2) | 425 (16.7) |

Order guide

| CMOS Imager for 1D- and 2D-codes with | Designation | Part no. |
|---|----------------------|----------|
| RS232 interface, fixed cable, 2m long | DCR55M2/R2 | 50136772 |
| RS232 interface, 0.15m cable with M12 connector | DCR55M2/R2-150-M12.8 | 50136784 |
| USB interface, fixed cable, 1.8m long | DCR55M2/UB-1800-S6 | 50136773 |

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.

• Features

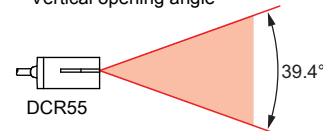
Very small and light code reader with integrated decoder for all common 1D and 2D codes.
Data transmission via configurable RS232 or USB 2.0 interface

• Driver

USB driver (see download area)
For configuring the DCR55 scanner:
Download "Sensor Studio"
"LeAnalysisCollectionSetup" (www.leuze.com)

• Reading field

Vertical opening angle



Horizontal opening angle

