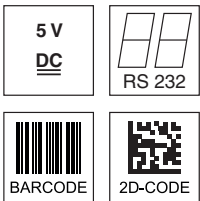


**DCR50**

**CMOS Imager Scan Engine with Integrated Decoder**

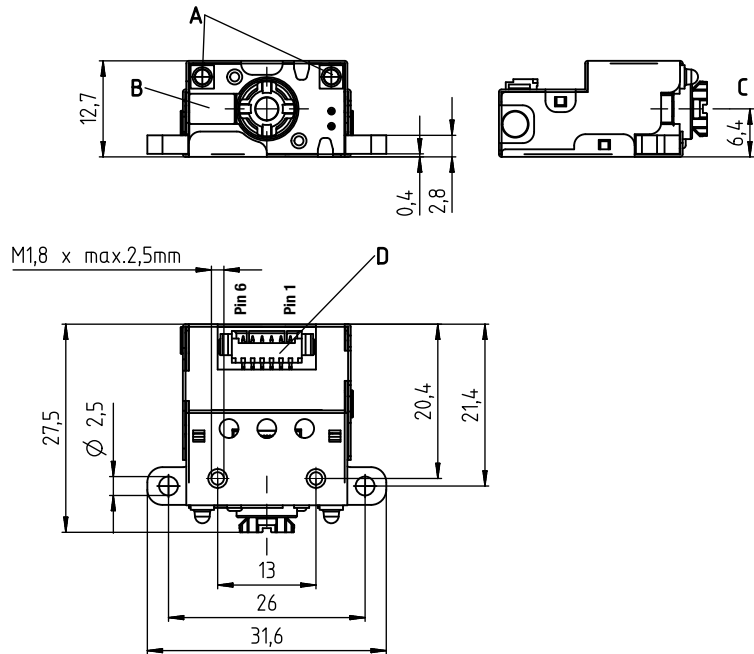
en 01-2017/03 50136733



**30 ... 425mm**

- CMOS imager scan engine for all common 1D and 2D codes
- Excellent reading and decoding features
- Very small construction
- Integrated decoder
- RS232 interfaces
- Operating temperature 0°C ...+50°C

**Dimensioned drawing**



- A** 2 integrated LEDs for illumination (red light)
- B** 1 integrated target LED (blue light)
- C** Center of optical axis
- D** Connector Molex (53261-0671), 6-pin

**Electrical connection**

**Molex 53261-0671, 6-pin**

| Pin No. | Signal      | IN / OUT |
|---------|-------------|----------|
| 1       | VCC / +5VDC | IN       |
| 2       | GROUND      | IN       |
| 3       | TRIGGER     | IN       |
| 4       | GOOD READ   | OUT      |
| 5       | RS232 TX    | OUT      |
| 6       | RS232 RX    | IN       |



**Accessories:**

(available separately)

- MA-CR Modular adapter unit

We reserve the right to make changes • DS\_DCR50\_en\_50136733.fm

## Specifications

### Optical data

|                                 |   |
|---------------------------------|---|
| Optical system                  | CMOS Imager, Rolling Shutter (1280x960)   |
| Read range                      | 30 ... 425mm  |
| Resolution                      | 1D codes: m = 0.190mm (7.5mil), distance dependent<br>2D codes: m = 0.127 mm (5mil), distance dependent |
| Light source illumination       | integrated LED (visible red light)  |
| Light source target LED (aimer) | integrated LED (visible blue light)   |
| Contrast                        | 15% minimum   |

### 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 ... 5.25VDC |
| Current consumption     | max. 300mA       |

### Interfaces

|                    |   |
|--------------------|---|
| Interface type     | RS232   |
| Baud rate RS232    | 9,600 ... 115,200Bd, configurable   |
| Data formats RS232 | configurable  |
| Trigger            | switching input (active/not active = 0V/+5V or not connected) or Presentation Mode (Motion Control) |
| Switching output   | NPN transistor output, max. 20mA / successful reading   |

### Mechanical data

|                    |                                      |
|--------------------|--------------------------------------|
| Weight             | 10g                                  |
| Dimensions (HxWxD) | 12.70x31.60x27.53mm                  |
| Mounting Tabs      | M2.5 through-hole                    |
| Fastening          | 4 M1.8 self tapping screws, 2mm deep |
| Connection type    | Molex Inc. (53261-0671), 6-pin       |

### Environmental data

|                               |  |
|-------------------------------|--|
| Temperature range (operation) | 0°C ... +50°C  |
| Ambient temperature (storage) | -20°C ... +60°C                                      |
| Air humidity                  | 10 ... 90% rel. humidity, non-condensing             |
| Ambient light                 | max. 100,000 lux                                     |
| Standards conformity          | CE, RoHS, FCC, EN 55022:2006 Class B, IEC 62471:2006 |

## Read ranges

| 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

| Product Name | Description  | Part no. |
|--------------|--|----------|
| DCR50M2/R2   | CMOS imager scan engine for 1D and 2D codes, RS232 interface, Molex 53261-0671 connection, 6-pin | 50135000 |
| MA-CR        | Modular adapter unit to interface device to host to connect to PC for evaluation                 | 50128204 |

## Remarks

### Operate in accordance with intended use!

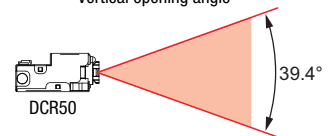
- ⚠ This product is not a safety sensor and is not intended as personnel protection.
- ⚠ The product may only be put into operation by competent persons.
- ⚠ Only use the product in accordance with the intended use.

### ● Features

Very small and light scan engine with integrated decoder for all common 1D and 2D codes.  
Data transmission via configurable RS232 interface.

### ● Reading field

Vertical opening angle



Horizontal opening angle

