DCR85

CMOS Imager with Integrated Decoder

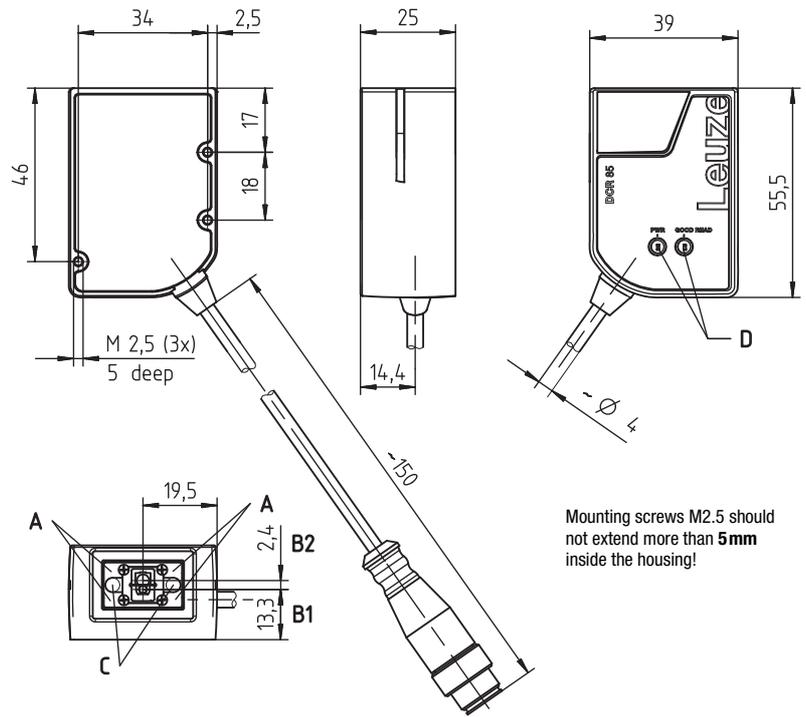en 01-2016/07 50130075

| 5 V DC | RS 232 |
| BARCODE | 2D-CODE |
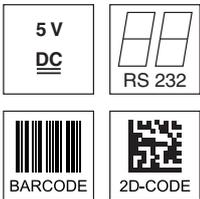
20 … 300mm

- CMOS imager scanner for all common 1D and 2D codes
- Excellent reading and decoding features
- Very small construction
- Integrated decoder
- RS232 interfaces
- Metal case
- Simple mounting and fastening

CE IP 54

We reserve the right to make changes • DS_DCR85_en_50130075.fm

Accessories:

(available separately)

- Connection cable M12, socket straight, 8-pole, cable length 2m, shielded K-D M12A-8P-2m-PUR (part no. 50104591)

Dimensioned drawing

Mounting screws M2.5 should not extend more than **5mm** inside the housing!

A 4 integrated LEDs for illumination (red light)
B1 High resolution read field lens
B2 Wide range read field lens
C 2 integrated target LEDs (blue light)
D Status LEDs

Electrical connection

RS232 - cable

Wire color	Signal	Description	IN / OUT
Red	+5VDC	Power supply 5VDC	IN
Violet	GND	Power supply 0VDC / 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

5 V 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	

Specifications

Optical data

Optical system	CMOS Imager, Rolling Shutter (1280 x 960)
Optical resolution	high resolution read field 960 x 640
	wide range read field 960 x 640
Read range	20 … 300 mm
Resolution	1D codes: m = 0.076mm (3mil), distance dependent
	2D codes: m = 0.127mm (5mil), distance dependent
Light source illumination	integrated LED (visible red light)
Light source target LED (aimer)	integrated LED (visible blue light)
Contrast	25% for 1D code, 35% for 2D code

Code specifications

Code types	1D:	Codabar, Code 11, Code 32 , Code 39, Code 93, Code 128, Interleaved 2 of 5, GS1 DataBar (RSS), MSI Plessey, Pharmacode, UPC/EAN, 2 of 5 (IATA, Matrix, Hong Kong, Straight, NEC), Telepen
	Stacked 1D:	PDF417, MicroPDF, GS1 Composite, Codablock F
	2D:	Data Matrix, Aztec Code, QR Code, Micro QR, MaxiCode
	Postal Codes:	Australian Post, Intelligent Mail, Japan Post, KIX Code, Korea Post, Planet, Postnet, UK Royal Mail, UPU ID Tags

Electrical data

Operating voltage U_B	4.5 … 5.5 VDC
Current consumption	typ. 350mA (continuous reading)
	typ. 75mA (illumination inactive)

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	70g (without cable)
Dimensions (HxWxD)	25x39x55.5mm
Fastening	3 threaded holes M2.5, 5mm deep
Connection type	fixed cable, 2m long, 6 x 0.081 mm^2 (6 x 28 AWG) or approx. 0.15m cable with M12 connector, 8-pole, A-coded

Environmental data

Temperature range (operation)	0°C … +50°C
Ambient temperature (storage)	-20°C … +60°C
Air humidity	10 … 90 % rel. humidity, non-condensing
Protection class	IP 54
Electromagnetic compatibility	EN 55022:2006 Class B, IEC 62471:2006
Standards conformity	CE, FCC

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 scanner with integrated decoder for all common 1D and 2D codes.
- Data transmission via configurable RS232 interface.

Read ranges

Code type / resolution m	Typical reading distance [mm]						
Code 39 / 0.076mm (3mil)			80	102			
Code 39 / 0.190mm (7.5mil)		33			182		
GS1 Databar / 0.267mm (10.5mil)	20				220		
UPC / 0.330mm (13mil)	28					280	
Data Matrix / 0.127mm (5mil)		43		115			
Data Matrix / 0.160mm (6.3mil)	33			150			
Data Matrix / 0.254mm (10mil)	20				180		
Data Matrix / 0.528mm (20.8mil)	28						343

Order guide

Product Name	Description	Part no.
DCR85M2/R2	CMOS imager scanner for 1D and 2D codes, RS232 interface, fixed cable, 2m long	50131458
DCR85M2/R2-150-M12.8	CMOS imager scanner for 1D and 2D codes, RS232 interface, 0.15m cable with M12 connector	50131581