

Technical data

Basic data

Series	BCL 8
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Functions

Functions	Alignment mode
	AutoConfig
	AutoRefAct
	Daisy Chain
	I/O
	LED indicator
	Multiple read
	Output format selectable
	Reading gate control
	Reference code comparison

Read data

Code types, readable	2/5 Interleaved
	Codabar
	Code 128
	Code 39
	Code 93
	EAN 128
	EAN 8/13
	EAN Addendum
	Pharma Code
	Pharmacode (available upon consultation)
	UPC
Scanning rate, typical	600 scans/s
Bar codes per reading gate, max. number	63 Piece(s)

Optical data

Reading distance	40 ... 160 mm
Light source	Laser, Red
Wavelength	655 nm
Laser class	1, IEC/EN 60825-1:2014
Transmitted-signal shape	Continuous
Usable opening angle (reading field opening)	60 °
Modulus size	0.15 ... 0.5 mm
Reading method	Line scanner
Scanning rate	600 scans/s
Beam deflection	Via rotating polygon wheel
Light beam exit	Front

Electrical data

Protective circuit	Short circuit protected
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Performance data

Supply voltage U_B	4.75 ... 5.5 V, DC
Current consumption, max.	250 mA

Inputs/outputs selectable

Output current, max.	20 mA
Number of inputs/outputs selectable	1 Piece(s)
Voltage type, outputs	DC
Switching voltage, outputs	Typ. $U_B / 0$ V
Voltage type, inputs	DC
Switching voltage, inputs	Max. 24 V DC
	Typ. $U_B / 0$ V
Input current, max.	20 mA

Input/output 1

Function	Freely configurable
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Interface

Type	RS 232
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RS 232

Function	Process
Transmission speed	4,800 ... 57,600 Bd
Data format	Adjustable
Start bit	1
Data bit	7,8
Stop bit	1.2
Parity	Adjustable
Transmission protocol	Adjustable
Data encoding	ASCII
	HEX

Service interface

Type	RS 232
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RS 232

Function	Service
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Connection

Number of connections	1 Piece(s)
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Connection 1

Function	Data interface
	PWR / SW IN / OUT
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	5 -pin
Encoding	A-coded

Mechanical data

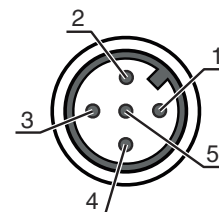
Design	Cubic
Dimension (W x H x L)	40.3 mm x 48 mm x 15 mm
Housing material	Metal
Metal housing	Zinc
Lens cover material	Glass
Net weight	120 g
Housing color	Silver
Type of fastening	Dovetail grooves
	Mounting thread
	Through-hole mounting
	Via optional mounting device

Electrical connection

Connection 1

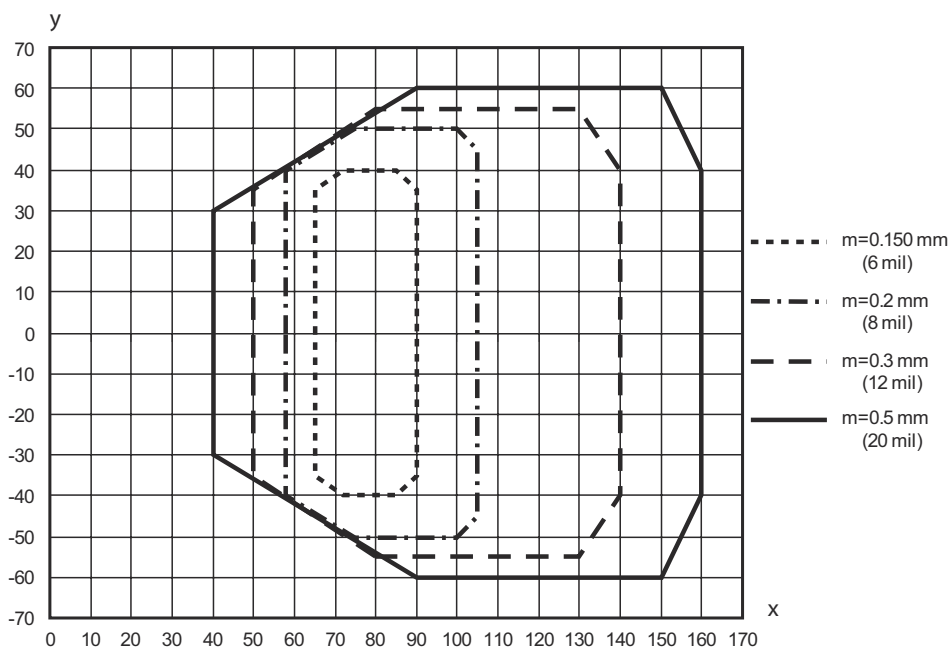
Function	Data interface
	PWR / SW IN / OUT
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	5 -pin
Encoding	A-coded

Pin	Pin assignment
1	+5 V DC
2	RS 232 TxD
3	GND
4	RS 232 RxD
5	SW IN/OUT



Diagrams

Reading field curve



x Reading field distance [mm]
 y Reading field width [mm]

Operation and display

LED	Display	Meaning
1	Green, flashing	Device ok, initialization phase
	Green, continuous light	Operational readiness
	Red, flashing	Device OK, warning set
	Red, continuous light	Device error

Operation and display

LED	Display	Meaning
1	Orange, flashing	Service operation
2	Green, continuous light	Reading successful
	Red, continuous light	No reading result
	Orange, continuous light	Reading gate active

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.

For UL applications:

	⚡ For UL applications, use is only permitted in Class 2 circuits in accordance with the NEC (National Electric Code).
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ATTENTION! LASER RADIATION – CLASS 1 LASER PRODUCT

	The device satisfies the requirements of IEC/EN 60825-1:2014 safety regulations for a product of laser class 1 and complies with 21 CFR 1040.10 except for conformance with IEC 60825-1 Ed. 3., as described in Laser Notice No. 56, dated May 8, 2019.
	⚡ Observe the applicable statutory and local laser protection regulations.
	⚡ The device must not be tampered with and must not be changed in any way. There are no user-serviceable parts inside the device. Repairs must only be performed by Leuze electronic GmbH + Co. KG.


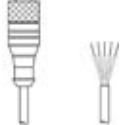

Accessories

Connection technology - Connection unit

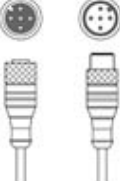
	Part no.	Designation	Article	Description
	50104790	MA 8-01	Modular connection unit	Supply voltage: 10 ... 30 V Current consumption, max.: 50 mA Interface: RS 485 Connections: 3 Piece(s) Degree of protection: IP 67
	50101699	MA 8.1	Modular connection unit	Supply voltage: 10 ... 30 V Current consumption, max.: 50 mA Interface: RS 232 Connections: 3 Piece(s) Degree of protection: IP 67

Accessories


Connection technology - Connection cables

	Part no.	Designation	Article	Description
	50040757	KB 008-3000 A	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connector, LED: No Connection 2: Open end Shielded: Yes Cable length: 3.000 mm Sheathing material: PUR
	50101941	KB-008-3000 A-S	Connection cable	Connection 1: Connector, M12, Axial, Male, A-coded, 5 -pin Connector, LED: No Connection 2: Open end Shielded: Yes Cable length: 3.000 mm Sheathing material: PUR
				



Connection technology - Interconnection cables

	Part no.	Designation	Article	Description
	50133891	KDS S-M12-5A-M12-5A-P1-030	Interconnection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 5 -pin Shielded: Yes Cable length: 3,000 mm Sheathing material: PUR

Mounting technology - Rod mounts

	Part no.	Designation	Article	Description
	50127177	BTU 008M-D10	Mounting system	Design of mounting device: Mounting system Fastening, at system: Sheet-metal mounting, For 10 mm rod Mounting bracket, at device: Screw type Type of mounting device: Turning, 360°, Adjustable, Clampable Material: Metal

Mounting technology - Other

	Part no.	Designation	Article	Description
	50036196	BT 8-0	Mounting device	Design of mounting device: Mounting clamp Fastening, at system: Mounting thread Mounting bracket, at device: Clampable Type of mounting device: Rigid Material: Metal Shock absorber: No
	50104791	BT 8-01	Mounting device	Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type Material: Metal

Accessories

Note



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