Leuze

Technical data sheet Stationary bar code reader Part no.: 50116353

BCL 304i SL 102 D H



The Sensor People In der Braike 1, 73277 Owen

Leuze electronic GmbH + Co. KG info@leuze.com • www.leuze.com Phone: +49 7021 573-0 • Fax: +49 7021 573-199

We reserve the right to make technical changes eng • 2020-06-17

Technical data

Leuze

Basic data	
Series	BCL 300i
Special design	
Special design	Heating
Functions	
Functions	Alignment mode
	AutoConfig
	AutoControl
	AutoReflAct
	Code fragment technology
	Heating
	LED indicator
	Reference code comparison
Characteristic parameters	

Characteristic parameters

MTTF	110 years
Read data	
Code types, readable	2/5 Interleaved
	Codabar
	Code 128
	Code 39
	Code 93
	EAN 8/13
	GS1 Databar Expanded
	GS1 Databar Limited
	GS1 Databar Omnidirectional
	UPC
Scanning rate, typical	1,000 scans/s
Bar codes per reading gate, max. number	64 Piece(s)

Optical data

Reading distance	100 700 mm
Light source	Laser, Red
Laser light wavelength	655 nm
Laser class	2, IEC/EN 60825-1:2007
Transmitted-signal shape	Continuous
Usable opening angle (reading field opening)	60 °
Modulus size	0.35 0.8 mm
Reading method	Line scanner
Beam deflection	Via rotating polygon wheel
Light beam exit	Front

Electrical data

Protective circuit

Polarity reversal protection

Performance data Supply voltage $\rm U_B$ Power consumption, max.

18 ... 30 V, DC 27 W

Inputs/outputs selectable 60 mA Output current, max. Number of inputs/outputs selectable 2 Piece(s) Input current, max. 8 mA

Type PROFIBUS DP Function Process Classification V1 Transmission speed 0.0096 12 Mbit/s Service interface Image: Service interface Type USB Function Service Connection Service Number of connections 1 Piece(s) Connection 1 BUS IN Function BUS IN BUS OUT Connection to device Data interface PWR / SW IN/OUT Type of connector Plug connector No. of pins 32 -pin Type Male Mechanical data Plug connector Design Cubic Dimension (W x H x L) 95 mm x 44 mm x 68 mm Housing material Metal. Diecast aluminum Lens cover material Glass Net weight 290 g Housing color Black Red Type of display Type of display LED Monochromatic graphic display. 128 x 3: pixels Number of L	PROFIBUS DP Function P Classification V Transmission speed 0. Service interface V Type U USB Function Function S Connection 1 Number of connections 1 Connection 1 B Function B Type of connection P No. of pins 32 Type M Mechanical data M Design C Dimension (W x H x L) 92 Housing material M Lens cover material G Net weight 22 Housing color B	rocess 1 0096 12 Mbit/s SB ervice Piece(s) US IN US OUT ponnection to device ata interface WR / SW IN/OUT ervice interface ug connector 2 -pin
FunctionProcessClassificationV1Transmission speed0.0096 12 Mbit/sService interfaceUSBTypeUSBUSBFunctionServiceServiceConnectionServiceNumber of connections1 Piece(s)Connection 1BUS IN BUS OUT Connection to device Data interfaceType of connectionPlug connector No. of pinsTypeMaleMechanical dataService interfaceDesignCubicDimension (W x H x L)95 mm x 44 mm x 68 mmHousing material Lens cover materialMetal, Diecast aluminum EaseNet weight290 gHousing colorBlack RedType of displayLED Monochromatic graphic display, 128 x 32 pixelsType of displayLED Monochromatic graphic display, 128 x 32 pixelsType of configurationVia web browserEnvironmental data2 Piece(s)Type of configurationVia web browser	Function P Classification V Transmission speed 0. Service interface T Type U USB Function Function S Connection 1 Connection 1 B Function B Connection 1 B Function B Type of connections 1 No. of pins 32 Type M Mechanical data M Design C Dimension (W x H x L) 92 Housing material M Lens cover material G Net weight 22 Housing color B	1 0096 12 Mbit/s SB ervice Piece(s) US IN US OUT ponnection to device ata interface NR / SW IN/OUT ervice interface ug connector 2 -pin
Classification V1 Transmission speed 0.0096 12 Mbit/s Service interface USB Type USB Function Service Connection 1 Piece(s) Connection 1 BUS IN BUS OUT Function BUS IN BUS OUT Connection 1 BUS OUT Function BUS OUT Connector 1 Connector to device Data interface PWR / SW IN/OUT Service interface PUR connector No. of pins 32 -pin Type Male Mechanical data Cubic Dimension (W x H x L) 95 mm x 44 mm x 68 mm Housing material Metal, Diceast aluminum Lens cover material Glass Net weight 290 g Housing color Black Red Type of fastening Operation and display Via optional mounting device	Classification V Transmission speed 0. Service interface Type U USB Function S Connection 1 Function 1 Function 1 Function 1 Function 2 Type of connections 1 G Connection 1 Function 9 S Type of connection 9 No. of pins 32 Type M Mechanical data Design C Dimension (W x H x L) 92 Housing material G Net weight 22 Housing color 8	1 0096 12 Mbit/s SB ervice Piece(s) US IN US OUT ponnection to device ata interface NR / SW IN/OUT ervice interface ug connector 2 -pin
Transmission speed0.0096 12 Mbit/sService interfaceTypeUSBUSBUSBFunctionServiceConnection1 Piece(s)Number of connections1 Piece(s)Connection 1BUS IN BUS OUT Connection to device Data interface PWR / SW IN/OUT Service interfaceType of connectionPlug connector No. of pins TypeMaleMaleMechanical dataCubic Dimension (W x H x L)DesignCubic GlassNet weight Power aterial290 gHousing colorBlack RedType of fastening Dovetail grooves Fastening on back Via optional mounting deviceOperation and display Type of configurationLED Monochromatic graphic display, 128 x 33 pixelsNumber of LEDs Type of configuration2 Piece(s)Type of configurationVia web browserEnvironmental dataA0 °C Ambient temperature, operation -35 40 °C	Transmission speed 0. Service interface Type Type U USB Function Function S Connection 1 Connection 1 B Function B Connection 1 B Function B Type of connection P No. of pins 32 Type M Mechanical data M Design C Dimension (W x H x L) 92 Housing material M Lens cover material G Net weight 22 Housing color B	D0096 12 Mbit/s SB ervice Piece(s) US IN US OUT ponnection to device ata interface NR / SW IN/OUT ervice interface ug connector 2 -pin
Service interface Type USB Function Service Connection I Piece(s) Number of connections 1 Piece(s) Connection 1 BUS IN BUS OUT Connection to device Data interface Function BUS IN BUS OUT Connection to device PWR / SW IN/OUT Service interface PWR / SW IN/OUT Service interface Type of connection Plug connector No. of pins 32 -pin Type Male Mechanical data Explore interface Design Cubic Dimension (W x H x L) 95 mm x 44 mm x 68 mm Housing material Metal, Diecast aluminum Lens cover material Glass Net weight 290 g Housing color Fastening on back Yia optional mounting device Via optional mounting device Operation and display LED Monochromatic graphic display, 128 x 33 pixels Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data Ambient temperature, operation	Service interface Type U USB Function S Connection Number of connections 1 Connection 1 Function B Function 0 Function 1 Function 8 Type of connection P No. of pins 33 Type M Mechanical data Design C Dimension (W x H x L) 9 Housing material M Lens cover material G Net weight 24 Housing color B	SB ervice Piece(s) US IN US OUT onnection to device ata interface NR / SW IN/OUT ervice interface ug connector 2 -pin
Type USB Function Service Connection Number of connections 1 Piece(s) Connection 1 Function 1 Function 1 Function 1 Function 1 BUS IN BUS OUT Connection to device Data interface PWR / SW IN/OUT Service interface PUR / SW IN/OUT Service interface Devention fullog LED Monochromatic graphic display, 128 x 33 pixels Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data Ambient temperature, operation -35 40 °C Ambient temperature, storage -20 70 °C	Type U USB Function S Connection Number of connections 1 Connection 1 Function B G C D P Type of connection P No. of pins 33 Type M Mechanical data Design C Dimension (W x H x L) 9 Housing material M Lens cover material G Net weight 23 Housing color B R	Piece(s) US IN US OUT onnection to device ata interface WR / SW IN/OUT ervice interface ug connector 2 -pin
USB Function Service Connection I Piece(s) Number of connections 1 Piece(s) Connection 1 BUS IN Function BUS OUT Connection 1 BUS OUT Function BUS OUT Connection 1 BUS OUT Function BUS OUT Connection to device Data interface PWR / SW IN/OUT Service interface Type of connection Plug connector No. of pins 32 -pin Type Male Mechanical data Outic Dimension (W x H x L) 95 mm x 44 mm x 68 mm Housing material Metal, Diecast aluminum Lens cover material Glass Net weight 290 g Housing color Black Red Dovetail grooves Type of fastening Dovetail grooves Fastening on back Via optional mounting device Operation and display LED Monochromatic graphic display, 128 x 33: pixels Number of LEDs 2 Piece(s) Type of configuration Via web	USB Function S Connection 1 Function 1 Function 1 Function 1 Function 8 CONNECTION 8 Function 9 No. of pins 33 Type M Mechanical data Design C Dimension (W x H x L) 9 Housing material M Lens cover material G Net weight 22 Housing color 8 R	Piece(s) US IN US OUT onnection to device ata interface WR / SW IN/OUT ervice interface ug connector 2 -pin
Function Service Connection 1 Number of connections 1 Function BUS IN Function BUS OUT Connection to device Data interface Data interface PWR / SW IN/OUT Service interface Object Design Cubic Dimension (W x H x L) 95 mm x 44 mm x 68 mm Housing color Black	Function S Connection 1 Number of connections 1 Connection 1 B Function B Function P S Type of connection No. of pins 3: Type M Mechanical data 2: Design C Dimension (W x H x L) 9: Housing material M Lens cover material G Net weight 2: Housing color B	Piece(s) US IN US OUT connection to device ata interface WR / SW IN/OUT ervice interface ug connector 2 -pin
Connection 1 Piece(s) Number of connections 1 Piece(s) Connection 1 BUS IN BUS OUT Connection to device Data interface PWR / SW IN/OUT Service interface PWR / SW IN/OUT Service interface Type of connection Plug connector No. of pins 32 -pin Type Male Mechanical data Cubic Dimension (W x H x L) 95 mm x 44 mm x 68 mm Housing material Metal, Diecast aluminum Lens cover material Glass Net weight 290 g Housing color Black Red Type of fastening Dovetail grooves Fastening on back Via optional mounting device Operation and display Type of display LED Monochromatic graphic display, 128 x 33 pixels Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data -35 40 °C Ambient temperature, operation -35 40 °C	Connection Number of connections 1 Connection 1 Function	Piece(s) US IN US OUT connection to device ata interface WR / SW IN/OUT ervice interface ug connector 2 -pin
Number of connections 1 Piece(s) Connection 1 BUS IN Function BUS OUT Connection to device Data interface PWR / SW IN/OUT Service interface Type of connection Plug connector No. of pins 32 -pin Type Male Mechanical data Cubic Dimension (W x H x L) 95 mm x 44 mm x 68 mm Housing material Metal, Diecast aluminum Lens cover material Glass Net weight 290 g Housing color Black Red Dovetail grooves Fastening on back Via optional mounting device Operation and display LED Monochromatic graphic display, 128 x 33: pixels Number of LEDs Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data -35 40 °C Ambient temperature, operation -35 40 °C	Number of connections 1 Connection 1 B Function B Function B Connection 1 C Function B S C Type of connection P No. of pins 3: Type M Mechanical data C Design C Dimension (W x H x L) 9: Housing material M Lens cover material G Net weight 2: Housing color B	US IN US OUT onnection to device ata interface WR / SW IN/OUT ervice interface ug connector 2 -pin
Connection 1 BUS IN Function BUS OUT Connection to device Data interface PWR / SW IN/OUT Service interface Type of connection Plug connector No. of pins 32 -pin Type Male Mechanical data Metal, Diecast aluminum Design Cubic Dimension (W x H x L) 95 mm x 44 mm x 68 mm Housing material Metal, Diecast aluminum Lens cover material Glass Net weight 290 g Housing color Black Red Dovetail grooves Fastening on back Via optional mounting device Operation and display LED Monochromatic graphic display, 128 x 33: pixels pixels Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data -35 40 °C Ambient temperature, operation -35 40 °C	Connection 1 B Function B Function C D D P C Type of connection P No. of pins 32 Type M Mechanical data C Dimension (W x H x L) 92 Housing material M Lens cover material G Net weight 22 Housing color B	US IN US OUT onnection to device ata interface WR / SW IN/OUT ervice interface ug connector 2 -pin
Function BUS IN BUS OUT Connection to device Data interface PWR / SW IN/OUT Service interface PUig connector No. of pins 32 -pin Type Male Mechanical data Cubic Design Cubic Dimension (W x H x L) 95 mm x 44 mm x 68 mm Housing material Metal, Diecast aluminum Lens cover material Glass Net weight 290 g Housing color Black Red Dovetail grooves Type of fastening Dovetail grooves Fastening on back Via optional mounting device Operation and display LED Monochromatic graphic display, 128 x 33 pixels 2 Piece(s) Type of configuration Via web browser Environmental data -35 40 °C Ambient temperature, operation -35 40 °C <th>Function B Function B B C D P S Type of connection No. of pins 32 Type M Mechanical data Design Design C Dimension (W x H x L) 92 Housing material M Lens cover material G Net weight 22 Housing color B</th> <td>JS OUT onnection to device ata interface <i>NR / SW IN/OUT</i> ervice interface ug connector 2 -pin</td>	Function B Function B B C D P S Type of connection No. of pins 32 Type M Mechanical data Design Design C Dimension (W x H x L) 92 Housing material M Lens cover material G Net weight 22 Housing color B	JS OUT onnection to device ata interface <i>NR / SW IN/OUT</i> ervice interface ug connector 2 -pin
Financial BUS OUT BUS OUT Connection to device Data interface PWR / SW IN/OUT Service interface PWR / SW IN/OUT Service interface PUlg connector No. of pins 32 - pin Type Male Mechanical data Usic Design Cubic Dimension (W x H x L) 95 mm x 44 mm x 68 mm Housing material Metal, Diecast aluminum Lens cover material Glass Net weight 290 g Housing color Black Red Type of fastening Dovetail grooves Fastening on back Via optional mounting device Via optional mounting device Operation and display LED Monochromatic graphic display, 128 x 33 pixels Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data -35 40 °C Ambient temperature, operation -35 40 °C	Type of connection P No. of pins 33 Type M Mechanical data C Design C Dimension (W x H x L) 94 Housing material M Lens cover material G Net weight 24 Housing color B R R	JS OUT onnection to device ata interface <i>NR / SW IN/OUT</i> ervice interface ug connector 2 -pin
Connection to device Data interface PWR / SW IN/OUT Service interface Type of connection No. of pins 32 -pin Type Male Mechanical data Design Cubic Dimension (W x H x L) 95 mm x 44 mm x 68 mm Housing material Metal, Diecast aluminum Lens cover material Glass Net weight 290 g Housing color Black Red Dovetail grooves Fastening on back Via optional mounting device Operation and display LED Monochromatic graphic display, 128 x 32 pixels pixels Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data -35 40 °C Ambient temperature, operation -35 40 °C	Type of connection P No. of pins 33 Type Mechanical data Mechanical data C Dimension (W x H x L) 94 Housing material M Lens cover material G Net weight 24 Housing color B	onnection to device ata interface WR / SW IN/OUT ervice interface ug connector 2 -pin
Data interface PWR / SW IN/OUT Service interface Type of connection No. of pins 32 -pin Type Male Mechanical data Design Cubic Dimension (W x H x L) 95 mm x 44 mm x 68 mm Housing material Metal, Diecast aluminum Lens cover material Glass Net weight 290 g Housing color Black Red Dovetail grooves Fastening on back Via optional mounting device Operation and display LED Monochromatic graphic display, 128 x 33: pixels pixels Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data -35 40 °C Ambient temperature, operation -35 40 °C	Type of connection P No. of pins 33 Type Mechanical data Mechanical data C Dimension (W x H x L) 93 Housing material M Lens cover material G Net weight 23 Housing color B	ata interface WR / SW IN/OUT ervice interface ug connector 2 -pin
PWR / SW IN/OUT Service interface Type of connection No. of pins 32 -pin Type Male Mechanical data Design Cubic Dimension (W x H x L) 95 mm x 44 mm x 68 mm Housing material Metal, Diecast aluminum Lens cover material Glass Net weight 290 g Housing color Black Red Dovetail grooves Fastening on back Via optional mounting device Operation and display LED Monochromatic graphic display, 128 x 33 pixels pixels Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data -35 40 °C Ambient temperature, operation -35 40 °C	Type of connection P No. of pins 33 Type M Mechanical data C Design C Dimension (W x H x L) 94 Housing material M Lens cover material G Net weight 24 Housing color B	WR / SW IN/OUT ervice interface ug connector 2 -pin
Service interfaceType of connectionPlug connectorNo. of pins32 -pinTypeMaleMechanical dataCubicDesignCubicDimension (W x H x L)95 mm x 44 mm x 68 mmHousing materialMetal, Diecast aluminumLens cover materialGlassNet weight290 gHousing colorBlack RedType of fasteningDovetail groovesOperation and displayLED Monochromatic graphic display, 128 x 32 pixelsNumber of LEDs2 Piece(s)Type of configuration-35 40 °CAmbient temperature, operation-35 40 °CAmbient temperature, storage-20 70 °C	Type of connection P No. of pins 33 Type M Mechanical data C Design C Dimension (W x H x L) 99 Housing material M Lens cover material G Net weight 29 Housing color B	ervice interface ug connector 2 -pin
Type of connectionPlug connectorNo. of pins32 -pinTypeMaleMechanical dataMaleMechanical dataCubicDesignCubicDimension (W x H x L)95 mm x 44 mm x 68 mmHousing materialMetal, Diecast aluminumLens cover materialGlassNet weight290 gHousing colorBlackType of fasteningDovetail groovesFastening on back Via optional mounting deviceOperation and displayLED Monochromatic graphic display, 128 x 32 pixelsNumber of LEDs2 Piece(s)Type of configuration-35 40 °CAmbient temperature, operation-35 40 °C	Type of connection P No. of pins 33 Type M Mechanical data C Design C Dimension (W x H x L) 99 Housing material M Lens cover material G Net weight 29 Housing color B	ug connector 2 -pin
No. of pins32 -pinTypeMaleMechanical dataMaleDesignCubicDimension (W x H x L)95 mm x 44 mm x 68 mmHousing materialMetal, Diecast aluminumLens cover materialGlassNet weight290 gHousing colorBlack RedType of fasteningDovetail groovesOperation and displayLED Monochromatic graphic display, 128 x 33 pixelsNumber of LEDs2 Piece(s)Type of configuration-35 40 °CAmbient temperature, operation-35 40 °CAmbient temperature, storage-20 70 °C	No. of pins 33 Type M Mechanical data C Design C Dimension (W x H x L) 94 Housing material M Lens cover material G Net weight 24 Housing color B R R	2 -pin
TypeMaleMechanical dataCubicDesignCubicDimension (W x H x L)95 mm x 44 mm x 68 mmHousing materialMetal, Diecast aluminumLens cover materialGlassNet weight290 gHousing colorBlackType of fasteningDovetail groovesFastening on back Via optional mounting deviceOperation and displayLED Monochromatic graphic display, 128 x 33 pixelsNumber of LEDs2 Piece(s)Type of configuration-35 40 °CAmbient temperature, operation-35 40 °CAmbient temperature, storage-20 70 °C	Type M Mechanical data C Design C Dimension (W x H x L) 9 Housing material M Lens cover material G Net weight 24 Housing color B	
Mechanical data Design Cubic Dimension (W x H x L) 95 mm x 44 mm x 68 mm Housing material Metal, Diecast aluminum Lens cover material Glass Net weight 290 g Housing color Black Red Dovetail grooves Type of fastening Dovetail grooves Fastening on back Via optional mounting device Operation and display LED Monochromatic graphic display, 128 x 3: pixels pixels Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data -35 40 °C Ambient temperature, operation -35 70 °C	Mechanical data Design C Dimension (W x H x L) 9 Housing material M Lens cover material G Net weight 24 Housing color B R R	ale
Design Cubic Dimension (W x H x L) 95 mm x 44 mm x 68 mm Housing material Metal, Diecast aluminum Lens cover material Glass Net weight 290 g Housing color Black Red Dovetail grooves Type of fastening Dovetail grooves Fastening on back Via optional mounting device Operation and display LED Monochromatic graphic display, 128 x 32 pixels Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data -35 40 °C Ambient temperature, operation -35 70 °C	Design C Dimension (W x H x L) 9 Housing material M Lens cover material G Net weight 2 Housing color B R R	
Dimension (W x H x L) 95 mm x 44 mm x 68 mm Housing material Metal, Diecast aluminum Lens cover material Glass Net weight 290 g Housing color Black Red Type of fastening Dovetail grooves Fastening on back Via optional mounting device Via optional mounting device Operation and display LED Monochromatic graphic display, 128 x 32 pixels Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data -35 40 °C Ambient temperature, operation -35 70 °C	Dimension (W x H x L) 94 Housing material M Lens cover material G Net weight 24 Housing color B R	
Housing material Metal, Diecast aluminum Lens cover material Glass Net weight 290 g Housing color Black Red Dovetail grooves Fastening on back Via optional mounting device Operation and display LED Mumber of LEDs 2 Piece(s) Type of configuration 2 Piece(s) Environmental data -35 40 °C Ambient temperature, operation -35 40 °C	Housing material M Lens cover material G Net weight 2 Housing color B R	ubic
Lens cover material Glass Net weight 290 g Housing color Black Red Dovetail grooves Fastening on back Via optional mounting device Operation and display LED Monochromatic graphic display, 128 x 32 pixels Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data -35 40 °C Ambient temperature, operation -35 40 °C	Lens cover material G Net weight 22 Housing color B R	5 mm x 44 mm x 68 mm
Net weight 290 g Housing color Black Red Dovetail grooves Fastening on back Via optional mounting device Operation and display LED Monochromatic graphic display, 128 x 32 pixels Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data -35 40 °C Ambient temperature, operation -35 40 °C	Net weight 24 Housing color B R	etal, Diecast aluminum
Housing color Black Red Red Type of fastening Dovetail grooves Fastening on back Via optional mounting device Operation and display LED Type of display LED Monochromatic graphic display, 128 x 32 pixels Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data Ambient temperature, operation -35 40 °C Ambient temperature, storage -20 70 °C	Housing color B	lass
Red Type of fastening Dovetail grooves Fastening on back Via optional mounting device Operation and display LED Type of display LED Monochromatic graphic display, 128 x 33: pixels Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data -35 40 °C Ambient temperature, operation -35 70 °C	R	90 g
Type of fastening Dovetail grooves Fastening on back Via optional mounting device Operation and display LED Type of display LED Monochromatic graphic display, 128 x 32 Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data Ambient temperature, operation -35 40 °C Ambient temperature, storage -20 70 °C		ack
Fastening on back Via optional mounting device Operation and display Type of display LED Monochromatic graphic display, 128 x 32 pixels Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data Ambient temperature, operation -35 40 °C Ambient temperature, storage -20 70 °C		ed
Via optional mounting device Operation and display Type of display LED Monochromatic graphic display, 128 x 32 pixels Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data Ambient temperature, operation -35 40 °C Ambient temperature, storage -20 70 °C	Type of fastening D	ovetail grooves
Operation and display LED Type of display LED Monochromatic graphic display, 128 x 32 pixels Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data Ambient temperature, operation -35 40 °C Ambient temperature, storage -20 70 °C	F	astening on back
Type of display LED Monochromatic graphic display, 128 x 32 pixels Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data Ambient temperature, operation -35 40 °C Ambient temperature, storage -20 70 °C	V	a optional mounting device
Monochromatic graphic display, 128 x 32 pixels Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data Ambient temperature, operation -35 40 °C Ambient temperature, storage -20 70 °C	Operation and display	
Monochromatic graphic display, 128 x 32 pixels Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data Ambient temperature, operation -35 40 °C Ambient temperature, storage -20 70 °C	Type of display	ED
Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data -35 40 °C Ambient temperature, operation -35 40 °C Ambient temperature, storage -20 70 °C		
Environmental data Ambient temperature, operation -35 40 °C Ambient temperature, storage -20 70 °C		
Ambient temperature, operation-35 40 °CAmbient temperature, storage-20 70 °C	Type of configuration V	a web browser
Ambient temperature, storage -20 70 °C	Environmental data	
	Ambient temperature, operation -3	5 40 °C
Relative humidity (non-condensing) 0 90 %	Ambient temperature, storage -2	0 70 °C
	Relative humidity (non-condensing) 0	90 %

Leuze electronic GmbH + Co. KG info@leuze.com • www.leuze.com

Phone: +49 7021 573-0 • Fax: +49 7021 573-199

Technical data

Leuze

Certifications

Degree of protection	IP 65
Protection class	III
Certifications	c UL US
Test procedure for EMC in accordance	EN 55022
with standard	EN 61000-4-2, -3, -4, -6
Test procedure for shock in accordance with standard	IEC 60068-2-27, test Ea
Test procedure for continuous shock in accordance with standard	IEC 60068-2-29, test Eb
Test procedure for vibration in accordance with standard	IEC 60068-2-6, test Fc

Classification

A Optical axis

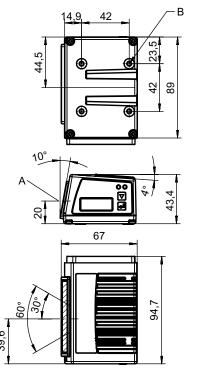
M4 thread (5 deep)

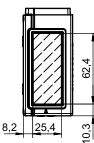
В

Customs tariff number	84719000
eCl@ss 8.0	27280102
eCl@ss 9.0	27280102
ETIM 5.0	EC002550
ETIM 6.0	EC002550

Dimensioned drawings

All dimensions in millimeters





Electrical connection

Connection 1

A

Function	BUS IN
	BUS OUT
	Connection to device
	Data interface
	PWR / SW IN/OUT
	Service interface
Type of connection	Plug connector
No. of pins	32 -pin
Туре	Male

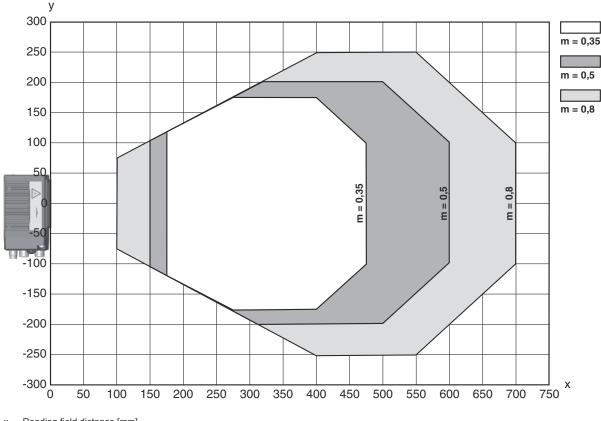
 Leuze electronic GmbH + Co. KG
 info@leuze.com • www.leuze.com
 We reserve the rig

 In der Braike 1, 73277 Owen
 Phone: +49 7021 573-0 • Fax: +49 7021 573-199
 eng • 2020-06-17

We reserve the right to make technical changes eng • 2020-06-17

Diagrams

Reading field curve



x Reading field distance [mm]

y Reading field width [mm]

Operation and display

LED	Display	Meaning
1 PWR	Green, flashing	Device ok, initialization phase
	Green, continuous light	Device OK
	Green, briefly off - on	Reading successful
	green, briefly off - briefly red - on	Reading not successful
	Orange, continuous light	Service mode
	Red, flashing	Device OK, warning set
	Red, continuous light	Error, device error
2 BUS	Green, flashing	Initialization
	Green, continuous light	Bus operation ok
	Red, flashing	Communication error
	Red, continuous light	Bus error

4/8

Leuze

Part number code

Part designation: BCL XXXX YYZ AAA BB CCCC



BCL	Operating principle BCL: bar code reader
XXXX	Series/interface (integrated fieldbus technology) 300i: RS 232 / RS 422 (stand-alone) 301i: RS 485 (multiNet slave) 304i: PROFIBUS DP 308i: EtherNet TCP/IP, UDP 348i: PROFINET RT 358i: EtherNet/IP
YY	Scanning principle S: line scanner (single line) R1: line scanner (raster) O: oscillating-mirror scanner (oscillating mirror)
z	Optics N: High Density (close) M: Medium Density (medium distance) F: Low Density (remote) L: Long Range (very large distances) J: ink-jet (depending on the application)
AAA	Beam exit 100: lateral 102: front
BB	Special equipment D: with display H: with heating DH: optionally with display and heating P: plastic exit window
CCCC	Functions F007: optimized process data structure
Note	

6

Observe intended use	!
----------------------	---

 $\$ This product is not a safety sensor and is not intended as personnel protection.

A list with all available device types can be found on the Leuze website at www.leuze.com.

 ${\ensuremath{\,\textcircled{\tiny \ensuremath{\,\Downarrow}}}}$ The product may only be put into operation by competent persons.

b Only use the product in accordance with its intended use.

Notes

Leuze

	Do I The U.S.
一一个	∜ N o

WARNING! LASER RADIATION – CLASS 2 LASER PRODUCT

Do not stare into beam!

- The device satisfies the requirements of IEC 60825-1:2007 (EN 60825-1:2007) safety regulations for a product of laser class 2 as well as the U.S. 21 CFR 1040.10 regulations with deviations corresponding to "Laser Notice No. 50" from June 24, 2007.
- b Never look directly into the laser beam or in the direction of reflected laser beams! If you look into the beam path over a longer time period, there is a risk of injury to the retina.
- b Do not point the laser beam of the device at persons!
- the laser beam using a non-transparent, non-reflective object if the laser beam is accidentally directed towards a person.
- & When mounting and aligning the device, avoid reflections of the laser beam off reflective surfaces!
- & CAUTION! Use of controls or adjustments or performance of procedures other than specified herein may result in hazardous light exposure.
- by Observe the applicable statutory and local laser protection regulations.
- by 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.



NOTE

Affix laser information and warning signs!

Laser information and warning signs are affixed to the device. In addition, self-adhesive laser information and warning signs (stick-on labels) are supplied in several languages.

- Affix the laser information sheet to the device in the language appropriate for the place of use. When using the device in the US, use the stick-on label with the "Complies with 21 CFR 1040.10" note.
- Affix the laser information and warning signs near the device if no signs are attached to the device (e.g. because the device is too small) or if the attached laser information and warning signs are concealed due to the installation position.
- ♦ Affix the laser information and warning signs so that they are legible without exposing the reader to the laser radiation of the device or other optical radiation.

Accessories

Connection technology - Connection cables

		Part no.	Designation	Article	Description
		50135243	KD PB-M12-4A-P3- 050	Connection cable	Suitable for interface: PROFIBUS DP Connection 1: Connector, M12, Axial, Female, B-coded, 4 -pin Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR
		50132079	KD U-M12-5A-V1- 050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC
	Y	50135248	KS PB-M12-4A-P3- 050	Connection cable	Suitable for interface: PROFIBUS DP Connection 1: Connector, M12, Axial, Male, B-coded, 4 -pin Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR

Accessories

Connection technology - Interconnection cables

	Part no.	Designation	Article	Description
	50117011	KB USB A - USB miniB	Service line	Suitable for interface: USB Connection 1: USB Connection 2: USB Shielded: Yes Cable length: 1,500 mm Sheathing material: PVC
	50135254	KDS PB-M12-4A- M12-4A-P3-050	Interconnection cable	Suitable for interface: PROFIBUS DP Connection 1: Connector, M12, Axial, Female, B-coded, 2 -pin Connection 2: Connector, M12, Axial, Male, B-coded, 4 -pin Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR

Connection technology - Terminating resistors

 Part no.	Designation	Article	Description
50038539	TS 02-4-SA	Terminator plug	Suitable for: MultiNet Plus, PROFIBUS DP Connection 1: Connector, M12, Axial, Male, B-coded, 4 -pin Function: Bus termination

Mounting technology - Mounting brackets

 Part no.	Designation	Article	Description
 50121433	BT 300 W	Mounting device	Design of mounting device: Angle, L-shape Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Adjustable Material: Metal

Mounting technology - Rod mounts

 Part no.	Designation	Article	Description
50121435	BT 56 - 1	Mounting device	Functions: Static applications Design of mounting device: Mounting system Fastening, at system: For 12 mm rod, For 14 mm rod, For 16 mm rod Mounting bracket, at device: Clampable Material: Metal Tightening torque of the clamping jaws: 8 N⋅m

Leuze

Accessories

Leuze

Mounting technology - Other

 Part no.	Designation	Article	Description
50124941	BTU 0300M-W	Mounting device	Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable, Groove mounting, Suited for M4 screws Material: Metal

Reflective tapes for standard applications

 Part no.	Designation	Article	Description
50106119	REF 4-A-100x100	Reflective tape	Design: Rectangular Reflective surface: 100 mm x 100 mm Material: Plastic Chemical designation of the material: PMMA Fastening: Self-adhesive

Services

	Part no.	Designation	Article	Description
D-	S981020	CS30-E-212	Hourly rate for "Configuration"	Details: Compilation of the application data, selection and suggestion of suitable sensor system, drawing prepared as assembly sketch. Conditions: Completed questionnaire or project specifications with a description of the application have been provided. Restrictions: Travel and accommodation charged separately and according to expenditure.
	S981014	CS30-S-110	Start-up support	Details: Performed at location of customer's choosing, duration: max. 10 hours. Conditions: Devices and connection cables are already mounted, price not including travel costs and, if applicable, accommodation expenses. Restrictions: No mechanical (mounting) and electrical (wiring) work performed, no changes (attachments, wiring, programming) to third-party components in the nearby environment.
	S981019	CS30-T-110	Product training	Details: Location and content to be agreed upon, duration: max. 10 hours. Conditions: Price not including travel costs and, if applicable, accommodation expenses. Restrictions: Travel costs and accommodation expenses charged separately and according to expenditure.
	S981021	CS30-V-212	Hourly rate for "Bar code qualification"	Details: REA evaluation with creation of a test report, evaluation of the code quality. Conditions: Original bar codes to be provided by the client.



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

 The Sensor People
 In der Braike 1, 73277 Owen
 Phone: +49 7021 573-0 • Fax: +49 7021 573-199
 eng • 2020-06-17

Leuze electronic GmbH + Co. KG info@leuze.com • www.leuze.com

We reserve the right to make technical changes