Leuze

Technical data sheet Stationary bar code reader Part no.: 50141843 BCL 338i S L 100 F007



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 • 2021-01-28

Technical data

Basic data Series BCL 300i **Special version Functions** Functions Alignment mode AutoConfig AutoControl AutoReflAct Code fragment technology LED indicator Reference code comparison **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 1,000 scans/s Scanning rate, typical Bar codes per reading gate, max. 64 Piece(s) number **Optical data** 70 ... 670 mm Reading distance Laser, Red Light source Laser light wavelength 655 nm Laser class 2, IEC/EN 60825-1:2007 Transmitted-signal shape Continuous Usable opening angle (reading field 60 ° opening) Modulus size 0.35 ... 0.8 mm Reading method Line scanner with deflecting mirror By means of rotating polygon mirror Beam deflection wheel + deflecting mirror Light beam exit Lateral with deflecting mirror **Electrical data** Protective circuit Polarity reversal protection Performance data Supply voltage U_B 18 ... 30 V, DC Power consumption, max. 4.5 W Inputs/outputs selectable Output current, max. 60 mA Number of inputs/outputs selectable 2 Piece(s) Input current, max. 8 mA Interface EtherCAT Туре

Function Process Transmission protocol EtherCAT, CoE and EGE Service interface Service Type USB Function Configuration via software Service Connection Service Connection 1 BUS IN BUS OUT Function BUS IN BUS OUT Connection 1 Connection to Service interface Type of connection Plug connector No. of pins 32-pin Type Male Mechanical data Design Design Cubic Dimension (W x H x L) 103 mm x 44 mm x 96 mm Housing material Metal Metal housing Diack Red Via optional mounting device Dype of display LED Number of LEDS 2 Piece(s)	EtherCAT	
Transmission protocolEtherCAT, CoE and EoEService interfaceUSBFunctionConfiguration via software ServiceFunctionConfiguration via software ServiceConnection 1FunctionBUS IN BUS OUT Connection to device Data interface PWR / SW IN / OUT Service interfaceType of connectionPlug connector Service interfaceNo. of pins Type32-pinTypeMaleMechanical dataDiscass DiscassMetal housing Housing colorCubic ClassIndexing Housing colorCubic ServiceType of fastening Diversition of LEDsCubic ClassNet weight Housing colorCubic ClassType of display Net weightLED Novelal igrooves ClassFastening otor Diversition and displayLED Number of LEDsPart of display Type of configurationLED Number of LEDsPart of display Type of configurationLED Number of LEDsContractions CutificationsIII Concel CutificationsCutifications CutificationsIII Concel CutificationsCutifications 		Process
Type USB Function Configuration via software Service Connection I Piece(s) Number of connections 1 Piece(s) Function BUS NU BUS OUT Connection 1 BUS OUT Function BUS NU BUS OUT Connection to device Data interface PWR / SW IN / OUT Service interface PWR / SW IN / OUT Type of connection Plug connector No. of pins 32 -pin Type Male Mechanical data Male Mechanical data Descast aluminum Lens cover material Metal Metal housing Diceast aluminum Lens cover material Glass Net weight 370 g Housing color Black Red Type of fastening Dovetail grooves Fastening on back Via optional mounting device Type of configuration Via web browser Conterton Type of display LED Number of LEDs 2 Piece(s) Type of confi		EtherCAT, CoE and EoE
USB Configuration via software Service Connection I Piece(s) Number of connections 1 Piece(s) 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 Type Male Metchanical data Male Metchanical data Usic Dimension (W x H x L) 103 mm x 44 mm x 96 mm Housing material Metal Metal housing Discast aluminum Lens cover material Glass Net weight 370 g Housing color Black Type of fastening Dovetail grooves Fastening on back Via optional mounting device Operation and display LED Number of LEDs 2 Piece(s) Type of configuration via web browser Environmental data Sime 0 °C Certifications III Certifications III Certifications III Certifications E	Service interface	
FunctionConfiguration via software ServiceServiceConnectionI Piece(s)Connection 1FunctionBUS IN BUS OUT Connection to device Data interfacePWR / SW IN / OUT Service interfaceType of connectionPUR / SW IN / OUT Service interfaceType of connectionPUR / SW IN / OUTService interfacePWR / SW IN / OUTService interfaceType of connectionPUR / SW IN / OUTService interfaceType of connectionPUR / SW IN / OUTService interfaceDevice interface	Туре	USB
FunctionConfiguration via software ServiceServiceConnectionNumber of connections1 Piece(s)FunctionBUS IN BUS OUT Connection to device Data interfacePWR / SW IN / OUT Service interfaceDevelopment PWR / SW IN / OUT Service interfaceType of connectionPlug connector No. of pinsTypeMaleMechanical dataDesignCubicUic Dimension (W x H x L)Dimension (W x H x L)103 mm x 44 mm x 96 mmHousing materialGlassMetal housingDiccast aluminum RedLens cover materialGlassNet weight370 gHousing colorBlack RedType of displayLED Number of LEDsType of displayLEDNumber of LEDs2 Piece(s)Type of onfiguration-35 40 °C 		
Service Connection 1 Piece(s) Function 1 BUS IN BUS OUT Connection to device Data interface PWR / SW IN / OUT Service interface Type of connection PUlg connector No. of pins 32 - pin Type Male Mechanical data Uic Design Cubic Design (W X H X L) 103 mm X 44 mm x 96 mm Housing material Metal Metal housing Diecest aluminum Lens cover material Glass Net weight 370 g Housing color Black Red Type of fastening Dovetail grooves Fastening on back Via optional mounting device Via optional mounting device Via optional mounting device Dype of display LED Number of LEDs 2 Piece(s) Type of of protection		Configuration via software
Number of connections 1 Piece(s) Connection 1 BUS IN BUS OUT 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 Type Male Mechanical data Metal Design Cubic Dimension (W x H x L) 103 mm x 44 mm x 96 mm Housing material Metal Metal housing Diecast aluminum Lens cover material Glass Net weight 370 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 Number of LEDs 2 Piece(s) Type of onfiguration Via web browser Environmental data -20 70 °C Ambient temperature, operation -35 40 °C Ambient temperature, storage -20 .		-
Connection 1 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 Type Male Mechanical data Design Design Cubic Dimension (W x H x L) 103 mm x 44 mm x 96 mm Housing material Metal Metal housing Diecast aluminum Lens cover material Glass Net weight 370 g Housing color Black Red Dovetail grooves Fastening Dovetail grooves Type of display LED Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data Via web browser Environmental data 0 90 % Certifications CUL US Test procedure for shock in accordance with standard EC 60068-2-27, test Ea Test procedure for voltarion in IC 60068-2-4, test Fc IC 60068-2-4, test Fc	Connection	
Function BUS IN BUS OUT Connection to device Data interface PWR / SW IN / OUT Service interface Metal Mechanical data Mechanical data Mechanical data Metal housing Discast aluminum Lens cover material Metal housing color Black Red Type of fastening Dovetail grooves Fastening on back Via optional mounting device Operation and display LED Number of LEDs 2 Piece(s) Type	Number of connections	1 Piece(s)
BUS OUT Connection to device Data interface PVWR / SW IN / OUT Service interface PVWR / SW IN / OUT Service interface PUg connector No. of pins 32-pin Type Male Mechanical data Uoic Design Cubic Dimension (W x H x L) 103 mm x 44 mm x 96 mm Housing material Metal Metal housing Diecast aluminum Lens cover material Glass Net weight 370 g Housing color Red Type of fastening Dovetail grooves Fastening on back Via optional mounting device Operation and display LED Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data -20 70 °C Relative humidity (non-condensing) 0 90 % Certifications c UL US Test procedure for Shock in accordance with standard EN 600068-2-27, test Ea Protection class	Connection 1	
Connection to device Data interface PWR / SW IN / OUT Service interface Puig connector No. of pins 32 -pin Type Male Mechanical data Cubic Dimension (W x H x L) 103 mm x 44 mm x 96 mm Housing material Metal Net weight 370 g Housing color Black Red Red Type of fastening Dovetail grooves Patenting on back Via optional mounting device Via optional mounting device Via optional mounting device Operation and display LED Number of LEDs 2 Piece(s) Type of configuration 'Ja evec(s) Type of configuration -35 40 °C Ambient temperature, operation -35 40 °C Relative humidity (non-condensing) 0 90 % Certification	Function	BUS IN
Data interface PWR / SW IN / OUT Service interface PUg connector No. of pins 32 -pin Type Male Mechanical data Mechanical data Mechanical data Male Mechanical data Mechanical data Metal Metal housing material Metal Metal housing color Black Net weight 370 g Housing color Black Red Type of fastening Dovetail grooves Fastening on back Via optional mounting device Operation and display LED Number of LEDs 2 Piece(s) Type of display LED Number of LEDs -20 70 °C Relative humidity (non-condensing) 0 90 % Certifications c UL US Test procedure for Shock in accordance EN 61000-4-2, -3, -4, -6 Test procedure for orbinnuous shock in accordance with standard EN 61000-4-2, -3, -4, -6		BUS OUT
PVR / 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) 103 mm x 44 mm x 96 mm Housing material Metal Metal housing Diecast aluminum Lens cover material Glass Net weight 370 g Housing color Black Red Dovetail grooves Fatening on back Via optional mounting device Operation and display LED Number of LEDs 2 Piece(s) Type of configuration -35 40 °C Ambient temperature, operation -35 40 °C Ambient temperature, storage -20 70 °C Relative humidity (non-condensing) 0 90 % Certifications III Certifications Cub U US Test procedure for Shock in accordance with standard EC 60068-2-29, test Ea Tota condance with standard EC 60068-2-29, test Eb		Connection to device
Service interfaceType of connectionPlug connectorNo. of pins32 - pinTypeMaleMechanical dataCubicDesignCubicDimension (W x H x L)103 mm x 44 mm x 96 mmHousing materialMetalMetal housingDiecast aluminumLens cover materialGlassNet weight370 gHousing colorBlackType of fasteningDovetail groovesFastening on backVia optional mounting deviceOperation and displayLEDNumber of LEDs2 Piece(s)Type of configurationVia web browserEnvironmental data		Data interface
Type of connectionPlug connectorNo. of pins32 -pinTypeMaleMechanical dataDesignCubicDimension (W x H x L)103 mm x 44 mm x 96 mmHousing materialMetalMetalGlassMetal socore materialGlassNet weight370 gHousing colorBlackType of fasteningDovetail groovesPartining on backVia optional mounting deviceOperation and displayLEDNumber of LEDs2 Piece(s)Type of configurationVia web browserEnvironmental data-20 70 °CRelative humidity (non-condensing)0 90 %CertificationsIIICertificationscIU USTest procedure for Shock in accordance with standardEC 60068-2-29, test EbTest procedure for vibration inIEC 60068-2-29, test Ep		PWR / SW IN / OUT
No. of pins32 -pinTypeMaleMechanical dataDesignCubicDimension (W x H x L)103 mm x 44 mm x 96 mmHousing materialMetalMetal housingDiecast aluminumLens cover materialGlassNet weight370 gHousing colorBlackRedType of fasteningOperation and displayLEDNumber of LEDs2 Piece(s)Type of configurationVia web browserEnvironmental dataAmbient temperature, operation-35 40 °CAmbient temperature, storage-20 70 °CRelative humidity (non-condensing)0 90 %CertificationsIIICertificationsCuL USTest procedure for Shock in accordance with standardIEC 60068-2-29, test EbTest procedure for vibration inIEC 60068-2-6, test Fc		Service interface
No. of pins32 -pinTypeMaleMechanical dataDesignCubicDimension (W x H x L)103 mm x 44 mm x 96 mmHousing materialMetalMetal housingDiecast aluminumLens cover materialGlassNet weight370 gHousing colorBlackRedType of fasteningOperation and displayLEDNumber of LEDs2 Piece(s)Type of configurationVia web browserEnvironmental dataAmbient temperature, operation-35 40 °CAmbient temperature, storage-20 70 °CRelative humidity (non-condensing)0 90 %CertificationsIIICertificationsCuL USTest procedure for Shock in accordance with standardIEC 60068-2-29, test EbTest procedure for vibration inIEC 60068-2-6, test Fc	Type of connection	Plug connector
TypeMaleMechanical dataDesignCubicDimension (W x H x L)103 mm x 44 mm x 96 mmHousing materialMetalMetal housingDiecast aluminumLens cover materialGlassNet weight370 gHousing colorBlackType of fasteningDovetail groovesFastening on backDovetail groovesOperation and displayLEDNumber of LEDs2 Piece(s)Type of configuration2 Piece(s)Type of configuration-35 40 °CAmbient temperature, operation-35 40 °CAmbient temperature, storage-20 70 °CRelative humidity (non-condensing)0 90 %CertificationsIIICertificationsc UL USTest procedure for SMCk in accordanceIEC 60068-2-27, test EaTest procedure for continuous shock in accordance with standardIEC 60068-2-29, test EbTest procedure for vibration inIEC 60068-2-6, test Fc		
Mechanical data Design Cubic Dimension (W x H x L) 103 mm x 44 mm x 96 mm Housing material Metal Metal housing Diecast aluminum Lens cover material Glass Net weight 370 g Housing color Black Red Dovetail grooves Type of fastening Dovetail grooves Peration and display LED Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data 20 70 °C Relative humidity (non-condensing) 0 90 % Certifications c UL US Test procedure for Shock in accordance with standard EN 55022 Test procedure for vibration in IEC 60068-2-29, test Eb	•	1
DesignCubicDimension (W x H x L)103 mm x 44 mm x 96 mmHousing materialMetalMetal housingDiecast aluminumLens cover materialGlassNet weight370 gHousing colorBlackType of fasteningDovetail groovesFastening on backVia optional mounting deviceOperation and displayType of displayLEDNumber of LEDs2 Piece(s)Type of configurationVia web browserEnvironmental data-35 40 °CAmbient temperature, operation-35 40 °CAmbient temperature, storage-20 70 °CRelative humidity (non-condensing)0 90 %CertificationsIIICertificationsc UL USTest procedure for Shock in accordance with standardIEC 60068-2-29, test EbTest procedure for vibration inIEC 60068-2-6, test Fc		
Dimension (W x H x L)103 mm x 44 mm x 96 mmHousing materialMetalMetal housingDiecast aluminumLens cover materialGlassNet weight370 gHousing colorBlackRedRedType of fasteningDovetail groovesPastening on backVia optional mounting deviceOperation and displayLEDNumber of LEDs2 Piece(s)Type of configurationVia web browserEnvironmental data-35 40 °CAmbient temperature, operation-35 40 °CAmbient temperature, storage-20 70 °CRelative humidity (non-condensing)0 90 %CertificationsIIICertificationsc UL USTest procedure for Shock in accordance with standardIEC 60068-2-29, test EbTest procedure for vibration inIEC 60068-2-6, test Fc		Outin
Housing materialMetalMetal housingDiecast aluminumLens cover materialGlassNet weight370 gHousing colorBlackRedDovetail groovesType of fasteningDovetail groovesOperation and displayLEDNumber of LEDs2 Piece(s)Type of configurationVia web browserEnvironmental data-35 40 °CAmbient temperature, operation-35 40 °CAmbient temperature, storage-20 70 °CRelative humidity (non-condensing)0 90 %CertificationsIIIProtection classIIICertificationsc UL USTest procedure for Shock in accordance with standardIEC 60068-2-29, test EbTest procedure for vibration inIEC 60068-2-29, test Ec	-	
Metal housingDiecast aluminumLens cover materialGlassNet weight370 gHousing colorBlackType of fasteningDovetail groovesFastening on backVia optional mounting deviceOperation and displayType of displayLEDNumber of LEDs2 Piece(s)Type of configuration-35 40 °CAmbient temperature, operation-35 40 °CAmbient temperature, storage-20 70 °CRelative humidity (non-condensing)0 90 %CertificationsIIICertificationsc UL USTest procedure for shock in accordance with standardIEC 60068-2-29, test EbTest procedure for vibration inIEC 60068-2-6, test Fc		
Lens cover materialGlassNet weight370 gHousing colorBlackRedDovetail groovesType of fasteningFastening on backVia optional mounting deviceOperation and displayLEDNumber of LEDs2 Piece(s)Type of onfigurationVia web browserEnvironmental data-20 70 °CAmbient temperature, operation-35 40 °CAmbient temperature, operation-20 70 °CRelative humidity (non-condensing)0 90 %CertificationsIIICertificationsc UL USTest procedure for shock in accordance with standardIEC 60068-2-29, test EbTest procedure for vibration inIEC 60068-2-29, test Eb	-	
Net weight 370 g Housing color Black Red Red Type of fastening Dovetail grooves Fastening on back Via optional mounting device Operation and display LED 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 Relative humidity (non-condensing) 0 90 % Certifications III Certifications c UL US Test procedure for Shock in accordance with standard EN 650022 Environance for vibration in IEC 60068-2-29, test Eb	•	
Housing color Black Red Type of fastening Dovetail grooves Fastening on back Via optional mounting device Operation and display LED Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data -35 40 °C Ambient temperature, operation -35 40 °C Relative humidity (non-condensing) 0 90 % Certifications 20 70 °C Relative humidity (non-condensing) 0 90 % Certifications III Certifications EN 55022 with standard 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 vibration in IEC 60068-2-29, test Eb	Lens cover material	Glass
RedType of fasteningDovetail grooves Fastening on back Via optional mounting deviceOperation and displayLEDType of displayLEDNumber of LEDs2 Piece(s)Type of configurationVia web browserEnvironmental data	Net weight	370 g
Type of fastening Dovetail grooves Fastening on back Via optional mounting device Operation and display Type of display LED Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data -20 70 °C Ambient temperature, operation -35 40 °C Ambient temperature, storage -20 70 °C Relative humidity (non-condensing) 0 90 % Certifications III Certifications c UL US Test procedure for EMC in accordance with standard EN 55022 EN 61000-4-2, -3, -4, -6 EN 61000-4-2, -3, -4, -6 Test procedure for continuous shock in accordance with standard IEC 60068-2-29, test Eb Test procedure for vibration in IEC 60068-2-6, test Fc	Housing color	Black
Fastening on back Via optional mounting device Operation and display Type of display LED Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data -35 40 °C Ambient temperature, operation -35 40 °C Relative humidity (non-condensing) 0 90 % Certifications 0 90 % Certifications III Certifications c UL US Test procedure for Shock in accordance with standard IEC 60068-2-27, test Ea Test procedure for vibration in IEC 60068-2-6, test Fc		Red
Via optional mounting device Operation and display Type of display LED Number of LEDs 2 Piece(s) Type of configuration Via web browser Environmental data -35 40 °C Ambient temperature, operation -35 40 °C Relative humidity (non-condensing) 0 90 % Certifications 0 90 % Pegree of protection IP 65 Protection class III Certifications c UL US Test procedure for Shock in accordance with standard IEC 60068-2-27, test Ea Test procedure for vibration in IEC 60068-2-29, test Fc	Type of fastening	Dovetail grooves
Operation and display LED 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 Relative humidity (non-condensing) 0 90 % Certifications III Certifications c UL US Test procedure for EMC in accordance with standard EN 55022 EN 61000-4-2, -3, -4, -6 ES 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 IEC 60068-2-6, test Fc		Fastening on back
Type of displayLEDNumber of LEDs2 Piece(s)Type of configurationVia web browserEnvironmental dataAmbient temperature, operation-35 40 °CAmbient temperature, storage-20 70 °CRelative humidity (non-condensing)0 90 %CertificationsIIIPerfore of protectionIP 65Protection classIIICertificationsc UL USTest procedure for EMC in accordance with standardEN 55022 EN 61000-4-2, -3, -4, -6Test procedure for continuous shock in accordance with standardIEC 60068-2-27, test EaTest procedure for continuous shock in accordance with standardIEC 60068-2-29, test Eb		Via optional mounting device
Type of displayLEDNumber of LEDs2 Piece(s)Type of configurationVia web browserEnvironmental dataAmbient temperature, operation-35 40 °CAmbient temperature, storage-20 70 °CRelative humidity (non-condensing)0 90 %CertificationsIIICertificationsc UL USTest procedure for EMC in accordance with standardEN 55022 EN 61000-4-2, -3, -4, -6Test procedure for continuous shock in accordance with standardIEC 60068-2-29, test EbTest procedure for vibration inIEC 60068-2-6, test Fc	Operation and display	
Number of LEDs2 Piece(s)Number of LEDs2 Piece(s)Type of configurationVia web browserEnvironmental dataVia web browserAmbient temperature, operation-35 40 °CAmbient temperature, storage-20 70 °CRelative humidity (non-condensing)0 90 %CertificationsIIIDegree of protectionIP 65Protection classIIICertificationsc UL USTest procedure for EMC in accordance with standardEN 55022 EN 61000-4-2, -3, -4, -6Test procedure for shock in accordance with standardIEC 60068-2-27, test EaTest procedure for continuous shock in accordance with standardIEC 60068-2-29, test Eb		I ED
Type of configurationVia web browserEnvironmental dataAmbient temperature, operation-35 40 °CAmbient temperature, storage-20 70 °CRelative humidity (non-condensing)0 90 %CertificationsIIIDegree of protectionIP 65Protection classIIICertificationsc UL USTest procedure for EMC in accordance with standardEN 55022 EN 61000-4-2, -3, -4, -6Test procedure for continuous shock in accordance with standardIEC 60068-2-27, test EaTest procedure for vibration inIEC 60068-2-6, test Fc		
Environmental dataAmbient temperature, operation-35 40 °CAmbient temperature, storage-20 70 °CRelative humidity (non-condensing)0 90 %Certifications0 90 %Degree of protectionIP 65Protection classIIICertificationsc UL USTest procedure for EMC in accordance with standardEN 55022 EN 61000-4-2, -3, -4, -6Test procedure for shock in accordance with standardIEC 60068-2-27, test EaTest procedure for continuous shock in accordance with standardIEC 60068-2-29, test Fc		
Ambient temperature, operation-35 40 °CAmbient temperature, storage-20 70 °CRelative humidity (non-condensing)0 90 %CertificationsIIIDegree of protectionIP 65Protection classIIICertificationsc UL USTest procedure for EMC in accordance with standardEN 55022 EN 61000-4-2, -3, -4, -6Test procedure for shock in accordance with standardIEC 60068-2-27, test EaTest procedure for continuous shock in accordance with standardIEC 60068-2-29, test Fc		
Ambient temperature, storage Relative humidity (non-condensing)-20 70 °CRelative humidity (non-condensing)0 90 %CertificationsIIIDegree of protection Protection classIP 65Protection classIIICertificationsc UL USTest procedure for EMC in accordance with standardEN 55022 EN 61000-4-2, -3, -4, -6Test procedure for shock in accordance with standardIEC 60068-2-27, test EaTest procedure for continuous shock in accordance with standardIEC 60068-2-6, test Fc	Environmental data	
Relative humidity (non-condensing) 0 90 % Certifications 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 IEC 60068-2-6, test Fc	Ambient temperature, operation	
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 IEC 60068-2-6, test Fc	Ambient temperature, storage	-20 70 °C
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 IEC 60068-2-6, test Fc	Relative humidity (non-condensing)	0 90 %
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 IEC 60068-2-6, test Fc	Certifications	
Certificationsc UL USTest procedure for EMC in accordance with standardEN 55022 EN 61000-4-2, -3, -4, -6Test procedure for shock in accordance with standardIEC 60068-2-27, test EaTest procedure for continuous shock in accordance with standardIEC 60068-2-29, test EbTest procedure for vibration inIEC 60068-2-6, test Fc	Degree of protection	IP 65
Test procedure for EMC in accordance with standardEN 55022 EN 61000-4-2, -3, -4, -6Test procedure for shock in accordance with standardIEC 60068-2-27, test EaTest procedure for continuous shock in accordance with standardIEC 60068-2-29, test EbTest procedure for vibration inIEC 60068-2-6, test Fc		III
with standardEN 61000-4-2, -3, -4, -6Test procedure for shock in accordance with standardIEC 60068-2-27, test EaTest procedure for continuous shock in accordance with standardIEC 60068-2-29, test EbTest procedure for vibration inIEC 60068-2-6, test Fc	Certifications	c UL US
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 IEC 60068-2-6, test Fc	•	EN 55022
accordance with standard Test procedure for continuous shock in accordance with standard IEC 60068-2-29, test Eb Test procedure for vibration in IEC 60068-2-6, test Fc	with standard	EN 61000-4-2, -3, -4, -6
Test procedure for continuous shock in accordance with standard IEC 60068-2-29, test Eb Test procedure for vibration in IEC 60068-2-6, test Fc		IEC 60068-2-27, test Ea
Test procedure for vibration in IEC 60068-2-6, test Fc	Test procedure for continuous shock	IEC 60068-2-29, test Eb
	Test procedure for vibration in	IEC 60068-2-6, test Fc
	accordance with standard	

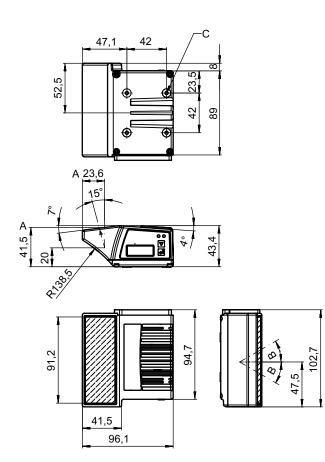
Leuze electronic GmbH + Co. KG The Sensor People In der Braike 1, 73277 Owen

Technical data

Customs tariff number	84719000
eCl@ss 5.1.4	27280102
eCl@ss 8.0	27280102
eCl@ss 9.0	27280102
eCl@ss 10.0	27280102
eCl@ss 11.0	27280102
ETIM 5.0	EC002550
ETIM 6.0	EC002550
ETIM 7.0	EC002550

Dimensioned drawings

All dimensions in millimeters



- A Optical axis
- B Deflection angle of the laser beam: ± 30°
- C M4 thread (5 deep)

Electrical connection

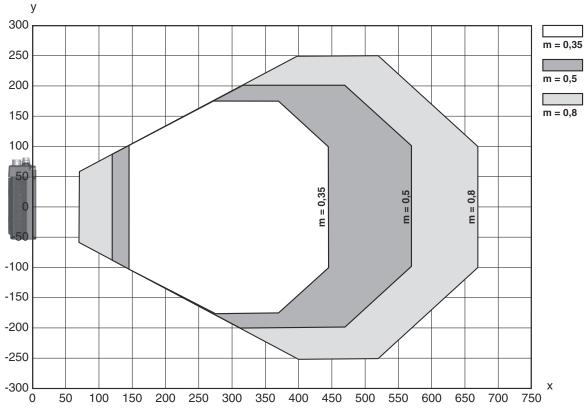
Leuze

Connection 1

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

Diagrams

Reading field curve



x Reading field distance [mm]

y Reading field width [mm]

Operation and display

LED		Display	Meaning
1 P	WR	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

Operation and display

LED Display Meaning 2 BUS Green, flashing Initialization Green, continuous light Bus operation ok Bus operation ok Red, flashing Communication error Bus error

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

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.

Notes

Leuze

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.
- 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.
- ✤ 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.
- b 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.
- & 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 la Laser

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
	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
W	50135074	KS ET-M12-4A-P7- 050	Connection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-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
	50137078	KSS ET-M12-4A- M12-4A-P7-050	Interconnection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: Connector, M12, Axial, Male, D-coded, 4 -pin Shielded: Yes Cable length: 1,000 mm Sheathing material: PUR
	50135081	KSS ET-M12-4A- RJ45-A-P7-050	Interconnection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: RJ45 Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR

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
S	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

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

The Sensor People In der Braike 1, 73277 Owen

 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 • 2021-01-28

Accessories

Leuze

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.



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