Technical data sheet
Stationary bar code reader
Part no.: 50105474
BCL 501i SN 100 H

Figure can vary

Contents

Technical data

Leuze

Basic data

Series	BCL 500i

Special design

Special design	Heating

Functions

Functions	Alignment mode
	AutoConfig
	AutoControl
	AutoReflAct
	Code fragment technology
	Heating
	LED indicator
	Reference code comparison

Characteristic parameters

MTTF	42.4 years

Read data

Code types, readable	2/5 Interleaved
	Codabar
	Code 128
	Code 39
	Code 93
	EAN 128
	EAN 8/13
	EAN Addendum
	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	200 ... 650 mm
Light source	Laser, Red
Laser light wavelength	650 nm
Laser class	2, IEC/EN 60825-1:2007
Transmitted-signal shape	Continuous
Bar code contrast (PCS)	60 %
Modulus size	0.25 ... 0.5 mm
Reading method	Line scanner with deflecting mirror
Scanning rate	800 ... 1,200 scans/s
Beam deflection	By means of rotating polygon mirror wheel + deflecting mirror
Light beam exit	Zero position at side at angle less than 90°

Electrical data

Protective circuit	Polarity reversal protection

Performance data

Supply voltage U_B	24 V, DC, -20 ... +20 %
Power consumption, max.	75 W

Inputs/outputs selectable

Output current, max.	100 mA
Number of inputs/outputs selectable	4 Piece(s)
Voltage type, outputs	DC
Switching voltage, outputs	Typ. U_B / 0 V
Voltage type, inputs	DC
Switching voltage, inputs	Typ. U_B / 0 V
Input current, max.	8 mA

Interface

Type	MultiNet Plus, RS 485

RS 485

Function	Process
Transmission speed	4,800 ... 115,400 Bd
Data format	Adjustable
Start bit	1
Data bit	7, 8, 9 data bits
Stop bit	1, 2 stop bits
Parity	Adjustable
Transmission protocol	Adjustable
Data encoding	ASCII

Service interface

Type	USB

USB

Function	Configuration via software
	Service

Connection

Number of connections	5 Piece(s)

Connection 1

Function	Service interface
Type of connection	USB
Designation on device	SERVICE
Connector type	USB 2.0 Standard-A

Connection 2

Function	Signal IN
	Signal OUT
Type of connection	Connector
Designation on device	SW IN/OUT
Thread size	M12
Type	Female
Material	Metal
No. of pins	5 -pin
Encoding	A-coded

Connection 3

Function	Signal IN
	Signal OUT
	Voltage supply
Type of connection	Connector
Designation on device	PWR
Thread size	M12
Type	Male
Material	Metal
No. of pins	5 -pin
Encoding	A-coded

Technical data

Connection 4

Function	BUS IN
Type of connection	Connector
Designation on device	HOST / BUS IN
Thread size	M12
Type	Male
Material	Metal
No. of pins	5 -pin
Encoding	B-coded

Connection 5

Function	BUS OUT
Type of connection	Connector
Designation on device	BUS OUT
Thread size	M12
Type	Female
No. of pins	5 -pin

Mechanical data

Design	Cubic
Dimension (W x H x L)	173 mm x 84 mm x 147 mm
Housing material	Metal, Aluminum
Lens cover material	Glass
Net weight	1,400 g
Housing color	Black, RAL 9005
	Red, RAL 3000
Type of fastening	Dovetail grooves
	Mounting thread
	Via optional mounting device

Operation and display

Type of display	LED
	Monochromatic graphical display, 128x64 pixel, with background lighting
Number of LEDs	2 Piece(s)
Type of configuration	Via web browser
Operational controls	Button(s)

Environmental data

Ambient temperature, operation	-35 ... 40 °C
Ambient temperature, storage	-20 ... +70 °C
Relative humidity (non-condensing)	90 %
Extraneous light tolerance on the bar code, max.	2,000 lx

Certifications

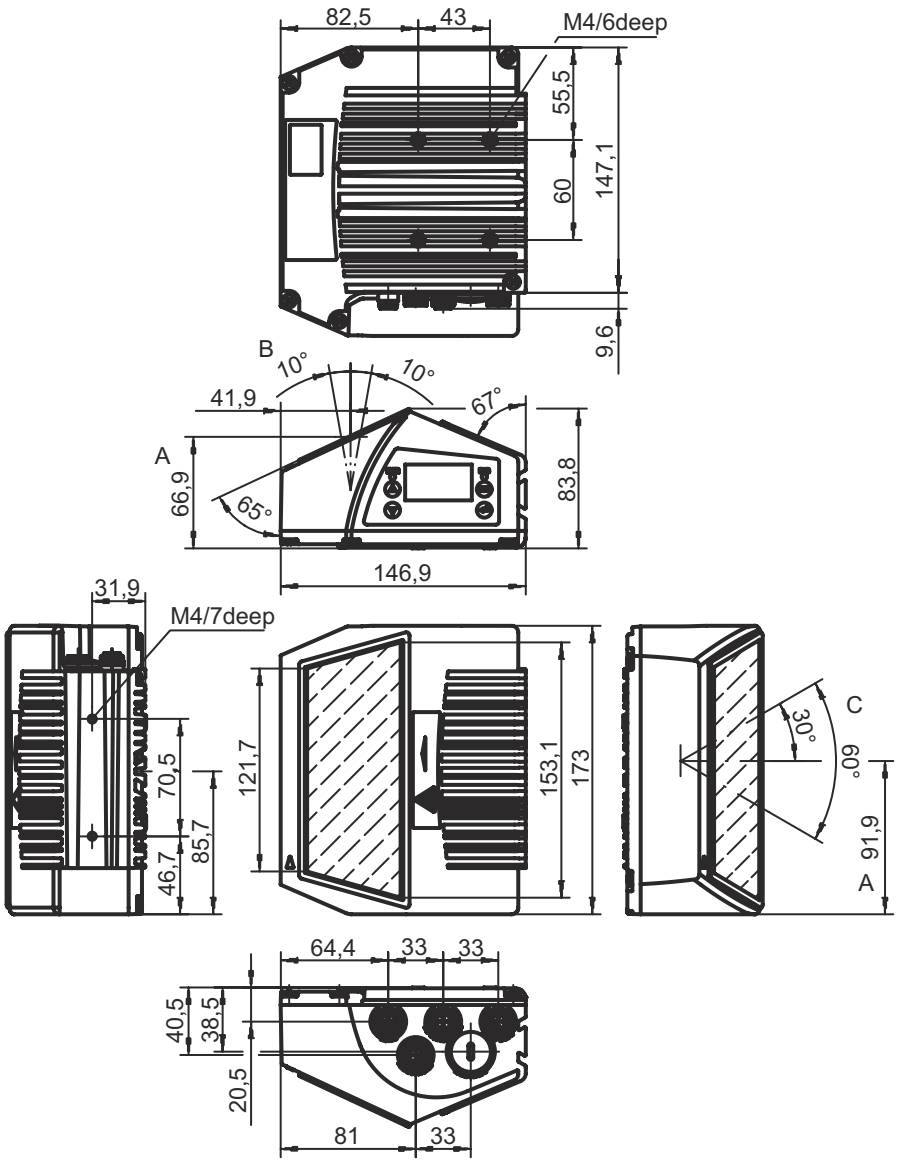
Degree of protection	IP 65
Protection class	III
Certifications	c UL US
Test procedure for EMC in accordance with standard	EN 55022
	EN 61000-4-2, -3, -4, -6
Test procedure for shock in accordance with standard	IEC 60068-2-27, test Ea
Test procedure for continuous shock in accordance with standard	IEC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

Classification

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	SERVICE
Function	Service interface
Type of connection	USB
Connector type	USB 2.0 Standard-A

Electrical connection

Connection 2	SW IN/OUT
Function	Signal IN
	Signal OUT
Type of connection	Connector
Thread size	M12
Type	Female
Material	Metal
No. of pins	5 -pin
Encoding	A-coded

Pin	Pin assignment
1	VOUT
2	SWIO 1
3	GND
4	SWIO 2
5	FE

Connection 3	PWR
Function	Signal IN
	Signal OUT
	Voltage supply
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	5 -pin
Encoding	A-coded

Pin	Pin assignment
1	VIN
2	SWIO 3
3	GND
4	SWIO 4
5	FE

Connection 4	HOST / BUS IN
Function	BUS IN
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	5 -pin
Encoding	B-coded

Pin	Pin assignment
1	n.c.
2	RS 485 B
3	GND 485
4	RS 485 A
5	FE

Electrical connection

Connection 5	BUS OUT
Function	BUS OUT
Type of connection	Connector
Thread size	M12
Type	Female
Material	Metal
No. of pins	5 -pin
Encoding	B-coded

Pin	Pin assignment
1	V CC485
2	RS 485 B
3	GND 485
4	RS 485 A
5	FE