

B-EasyConnect

Accessories for communication and IOT



— S-02040102-0000

B-EasyConnect

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Notes on this user manual

This device user manual contains information which is specific to the product and which is valid at the time of printing. This manual is only complete in conjunction with the product-related hardware and software user manuals required for the individual application.

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2.0	23.12.2020	First Revision
2.1	08.01.2021	Corrections added
2.2	20.01.2021	Opensource Licenses added

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1 General information

This user manual is intended for use by qualified professionals and contains information on the assembly, installation, start-up and maintenance of the device.

1.1 Notes on the manual

This manual is a component of the product and applies to the following devices:


- B-EasyConnect

The manual contains information on the following topics:

- Applications
 - Safety
 - Mechanical design
 - Electrical design
 - Connections
 - Start-up
 - Upkeep and maintenance
 - Decommissioning
 - Disposal
- ▶ Always keep this user handbook available alongside the product.

1.2 Symbols and visual depictions

The following symbols and visual depictions are used in this handbook:

Symbol	Meaning
→ ...	List entry
▶ ...	Individual instruction or list of instructions which can be carried out in any order.
1. ... 2. ...	List of instructions which must be carried out in the order given.
	Additional product information

- Quotation marks indicate user interface elements and functions, as well as paths.
- Example: Select "System/Push Service" and click "Sender"
- Brackets mark placeholders
- Example: To edit the device <name>, click the "Edit" button
- Bold font in the text emphasizes important words
- Example: Do not leave the page without **saving**.

Design of warnings:

WARNING

Optional:	Hazard type and source
Other	Short description and consequences
Symbols	▶ Preventive measures

1.3 Hazard categories and indications

The following indications are used in the case of warning messages to ensure your personal safety and avoid any damage to property.

The indications have the following meanings:

DANGER

Serious injury or death

Non-compliance with the safety features will result in death or serious injury.

- ▶ Take preventive measures.
-

WARNING

Possible serious injury or death

Non-compliance with the safety features may result in death or serious injury.

- ▶ Take preventive measures.
-

CAUTION

Possible minor injuries

Non-compliance with the safety features may result in minor injuries.

- ▶ Take preventive measures.
-

NOTE

Possible damage to property

Non-compliance with the safety features may result in damage to property.

- ▶ Take preventive measures.
-

1.4 Qualified personnel

This manual is intended for qualified personnel and contains information on the assembly, installation, commissioning and maintenance of the equipment.

Qualified personnel by definition of this documentation and the safety instructions it contains are trained specialists who are familiar with the safety concepts of automation technology and who are authorized to assemble, install, commission, ground and mark devices, systems and circuits in accordance with the standards of safety technology.

1.5 Duty of care

The operator provides this user manual or excerpts from it to the persons who perform tasks with or in connection with the equipment. The operator keeps this user manual or relevant parts of it within easy reach in the immediate vicinity of the equipment. When handing over the equipment to another person, the operator passes this user manual on to this person.

The user (OEM) must ensure the following:

- The device must only be used according to regulations.
- The device must only be used in good working order.
- The user handbook must always be kept legible and fully available.
- Only sufficiently qualified and authorized personnel may carry out the assembly, installation, start-up and maintenance of the device.
- These authorized personnel must receive regular training on all relevant occupational health and safety and environmental protection issues and must be fully familiar with the contents of this user handbook, particularly the sections regarding safety features.
- Any markings or identification labels as well as safety and warning signs on the device must not be removed and must be kept legible at all times.
- The national and international regulations regarding the operating of machinery and facilities where the device is being used must be observed at all times.
- The user always has any current relevant information regarding the device and its use or operation at his disposal.

The user takes direct responsibility for agreeing with the competent authorities, the use of safety-related control components, and for compliance with their instructions.

1.6 Handling of device

The device is susceptible to impacts, heavy vibration, moisture and extreme temperatures.

1.6.1 Transport and storage

- ▶ Protect the device against major mechanical stresses during transport.
- ▶ Always pack the device in its original packaging for transport.
- ▶ For storage, refer to the applicable statement of ambient conditions (see section: "Technical Data").
- ▶ Protect the device against condensation and damp.

1.6.2 Operation

- ▶ If the device has been stored or transported in cold weather or under conditions or large fluctuations in temperature, do not start to operate it until it has acclimatized to room temperature for the place it is used.
- ▶ If condensation is present, wait at least 12 hours before starting to operate the device.

1.6.3 Unpacking

On delivery of the device, a check must be made that it is complete and undamaged.

- ▶ Check the packaging for external damage.
- ▶ If the packaging is seriously damaged or if damage to the contents is evident: Do not proceed further with opening the packaging, instead immediately inform the transport company and your supplier.
- ▶ Remove the packaging and keep it safe for subsequent transport.
- ▶ Check the contents for evidence of damage in transport.
- ▶ Check the contents for completeness against the order documentation and keep all the delivery documentation for future reference. The delivery documentation contains important information about the device and is part of the product.
- ▶ If you discover damage in transport, or if the equipment delivered does not match the order: Inform the supplier immediately.

1.6.4 Assembly

NOTE

Radio communication

Installing the device inside a metal control cabinet can lead to considerable loss of performance or even loss of radio communication.

- ▶ Ensure that the device is operated outside a metal enclosure.

2 Safety instructions

Respect the following safety instructions when handling the B-EasyConnect to protect yourself and the equipment from damage.

- ▶ The device must only be operated in proper condition.
- ▶ During thunderstorms, there is a risk of lightning strikes and overvoltage damage to connected electrical equipment
- ▶ Do not install the operating equipment during a thunderstorm.
- ▶ Wetness and liquids getting into the B-EasyConnect can cause electric shocks or short circuits.
- ▶ Do not allow any liquids to enter the interior of the operating equipment.
- ▶ Make sure that all ventilation openings are free and not covered up.
- ▶ Protect the operating equipment from dust, moisture and vapors.
- ▶ Use strong, hard-to-guess passwords when configuring your WLAN network to ensure IT security

Working on the device

- ▶ Disconnect the B-EasyConnect from the controller or computer before cleaning.
- ▶ Dust, moisture and vapors as well as harsh cleaning agents or solvents can damage the operating equipment.
- ▶ Clean the operating equipment with a dry or slightly damp, lint-free cloth.
- ▶ Do not open the housing of the operating equipment.
- ▶ Improper opening and improper repairs may pose a risk to users of the equipment.
- ▶ In case of repair, hand over the equipment to the manufacturer or its authorized customer service.

3 Intended Use

The B-EasyConnect module is designed for use in an automation system with the following operation conditions:

- Rated supply voltage around 5V (DC voltage) via micro USB socket according to USB standard (4.25V... 5.25V). The device must not be connected to an AC power supply.
- Please use the micro USB socket intended for power supply and data communication.
- Environment with maximum pollution degree 2 (according to EN 61010-1)
- Altitude up to 2000 m above sea level.
- Only in rooms closed on all sides (indoors) without direct UV radiation exposure.
- Max. Ambient temperature inside and outside a closed enclosure according to technical data (see section 10 "Technical data")
- Use in the industrial sector, as well as in the business/commercial sector or in small businesses - but not in private households
- The 2.4 GHz frequency band according to IEEE 802.11 must be used exclusively for wireless communication. Only the radio channels approved for use in the respective country may be used.
- The device must be operated only with the SD card included in the scope of delivery; modifications are not permitted.

Correct transport, positioning, installation and use as well as careful maintenance are essential for the safe and reliable operation of the B-EasyConnect. The equipment must only be used under the conditions and in the applications specified in this documentation and the associated user manuals.

Only use the B-EasyConnect as follows:

- As intended
- In technically proper condition
- Without unauthorized modifications
- By qualified personnel (as described in section 1.4)

Any other use or modification is not an intended use.

- ▶ Comply with the regulations of the employers' liability insurance association, the technical supervisory association, the VDE regulations or corresponding national regulations..

4 Product description

The B-EasyConnect Gateway is part of a modular automation system for industrial control applications in the medium to high performance range. It extends the communication options of the Berghof automation system of the i.MX6 series by another independent Ethernet interface via WLAN. Primarily, the EasyConnect Gateway is intended as an accessory for debugging the control system.

The configuration is automatically loaded from the connected controller after the initial setup. The controller thus determines the settings and properties of the Gateway. This implementation and the additional independent Ethernet interface via USB enables modern means of communication and plant security combined in one product.

To use the B-EasyConnect, the Berghof controller requires a free USB connection port. The Gateway is powered via the USB cable, which is also used for USB communication with the controller. The user can now connect wirelessly to the Berghof control via the EasyConnect Gateway, e.g. to log into the CODESYS-based control or to request the web server for configuration.

The wireless connection between the PC/notebook and the EasyConnect Gateway is established via WLAN in accordance to the IEEE 802.11 standard (details on the supported standards and frequencies can be found in section 10.2). The Berghof controller itself is communicating with the EasyConnect module via a USB-Ethernet protocol.

4.1 Use cases

The B-EasyConnect Gateway can be used as a wireless access point (configuration see section 5.1.3) or as a wireless client (configuration see section 5.1.4 and section 5.1.5) in connection with existing infrastructure.

4.2 Overview

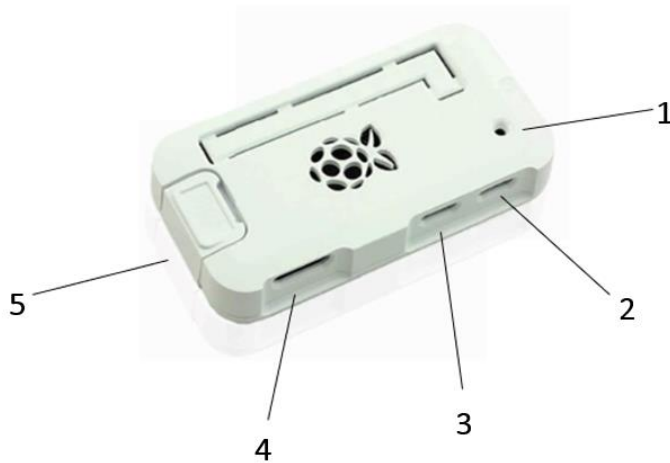


Fig. 1: Product Overview B-EasyConnect

Pos.	Description
1	LED ON/OFF
2	Micro-USB: 5V-supply ; not used (covered with protective cap)
3	Micro-USB: Data connection + power supply via same USB port
4	HDMI-Interface: not used (covered with protective cap)
5	SD-card Slot (under protective flap)

The SD card contains the operating system together with the Berghof application. The Berghof application only runs on the B-EasyConnect device, which is enabled for it. The SD card can not be transferred to another operating device.

USB-power supply (5V DC)	
Power supply	+5 V DC (4.25..5.25V (according to USB specification)
Current consumption	max. 500mA

4.3 Scope of delivery

- B-EasyConnect
- Micro SD-card 4GB, inserted and secured under flap
- cable USB 2.0, USB A connector to Micro USB B connector, black, 0,8m length
- protective cap HDMI Mini PE with handle, plugged
- protective cap USB Micro PE, plugged
- Additional sheet with GPL License agreement

4.4 Interfaces

Assembly

The device is not designed for installation in a metal control cabinet due to the use of radio communication.

Radio Interface

The module uses a WLAN for communication.

USB

The device supports two Micro USB interfaces.

- One USB interface serves only as a power supply (designation "Power" - covered with protective cap, not intended for use).
- The other USB interface is used for power supply and data communication with a connected device (designation "USB" - standard interface for application).



Fig. 2: Interfaces and connectors

HDMI

The connector is covered with a protective cap and without function

Micro SD-card slot

Module is delivered with inserted micro SD card with Berghof application and operating system

LED

The EasyConnect gateway offers as simple diagnosis via the LED available on the EasyConnect and via the web interface of the controller.

The following operation states are indicated

- LED off -> EasyConnect not powered or no SD card
- LED on -> EasyConnect powered and application is running
- LED blinking irregular -> device is booting
- LED blinking 2 seconds -> SD-card does not match with EasyConnect gateway
- LED fast blinking (20 Hz) -> connection could not established to plc with USB
- LED slow blinking (1 Hz) -> Startup and configuration of EasyConnect software

4.5 Requirements for operation

The following conditions must be met for operation of the B-EasyConnect with a compatible Berghof controller:

- The corresponding micro SD card is inserted in the EasyConnect device.
- The operating device is connected to a free USB socket of the controller
- The device is connected to the controller via the supplied USB connection cable.
- The corresponding USB-License is activated with the Berghof controller

5 Configuration

The equipment is configured via the web interface of the Berghof control system, to which the B-EasyConnect gateway is connected.

The configuration process is described in more detail in the following paragraphs.

5.1 Configuration of EasyConnect via Webinterface of the Berghof control system

5.1.1 Configuration menu



DC2115WUX CM 0.8S 1131 NTL - 270011300

(plcactive)

Configuration

[Network](#)

[CAN](#)

[Time and Date](#)

[Display](#)

[FTP-Server](#)

[SSH-Server](#)

[WEB-Server](#)

[Users](#)

[SVC Config](#)

[Easy-Connect](#)

[Config Protection](#)

[Reset Config](#)

System

[Info](#)

Fig. 3: Configuration menu

5.1.2 Changing/Setting EasyConnect operation mode

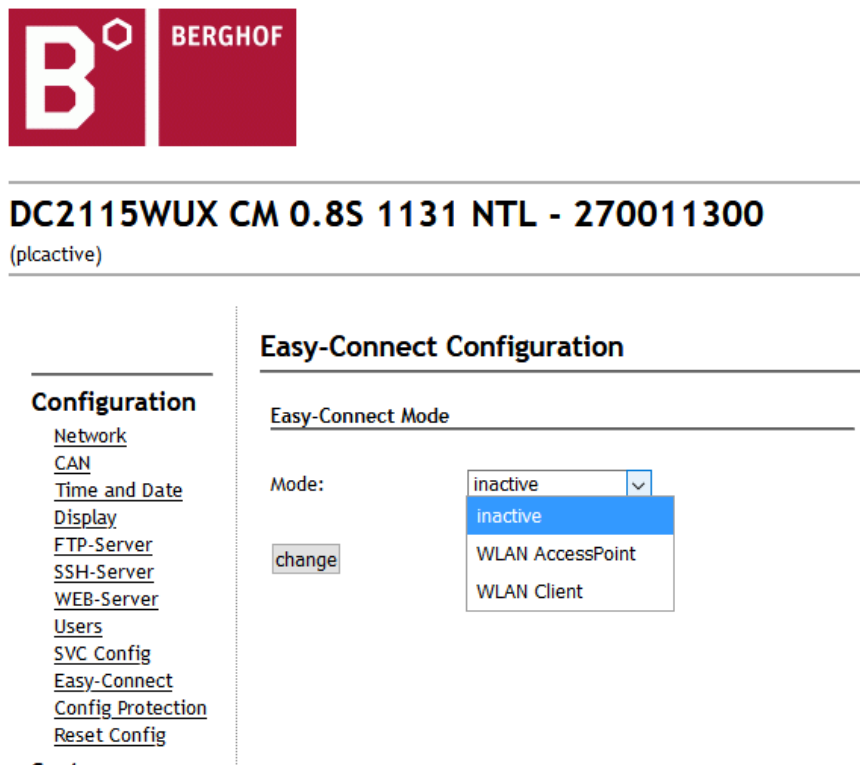


Fig. 4: Menu Operation Mode

Selection options in the web interface of the connected controller:

1. *inactive* - the gateway is deactivated. The wireless Ethernet interface is not available and cannot be used by the controller for communication.
2. *WLAN AccessPoint* - the gateway or the controller itself becomes an access point to which compatible clients can connect for communication.
3. *WLAN client* - the gateway or controller can connect to a compatible router or access point within range and establish communication.

5.1.3 Operation as WLAN Access Point

EasyConnect Configuration

EasyConnect Mode

Mode:

WLAN Access Point

PLC-IP-Address	<input type="text" value="0.0.0.0"/>	1
PLC-NetMask	<input type="text" value="0.0.0.0"/>	
WLAN-SSID	<input type="text"/>	2
WLAN-Password	<input type="text"/>	
WLAN Channel	<input type="text" value="1"/>	
WLAN Country	<input type="text" value="Germany"/>	
DHCP IP Start	<input type="text" value="0.0.0.0"/>	3
DHCP IP End	<input type="text" value="0.0.0.0"/>	
DHCP IP Netmask	<input type="text" value="0.0.0.0"/>	
DHCP LeaseTime	<input type="text" value="900000"/>	
	<input type="button" value="change"/>	4

Fig. 5: Operation as WLAN Access Point

1. IP address and netmask of the controller that sets up the WLAN access point.
2. WLAN SSID and WLAN password with which a client must authenticate itself. A connection can only be established with WPA2 encryption enabled.
3. **IMPORTANT: Select WLAN Country according to the operating location!**
4. DHCP settings of the WLAN access point.
5. Accept and save the configuration - the settings are active after a restart of the controller.

5.1.4 Operation as WLAN Client Mode – with activated DHCP

EasyConnect Configuration

EasyConnect Mode

Mode:

WLAN Client

WLAN-SSID:

WLAN-Password:

WLAN Country:

Mode:

Fig. 6: Operation as WLAN-Client Mode – with activated DHCP

1. Enter the parameters of the WLAN network to which the gateway or controller is to connect. A connection can only be established if the network has been set up with WPA2 encryption.
2. **IMPORTANT: Select the WLAN country according to the operating location!**
3. DHCP Mode - the gateway (client) receives an IP address from the access point via DHCP.
4. Apply and save the configuration - the settings are active after a restart of the controller.

5.1.5 Operation as WLAN Client Mode – with static IP-Address

EasyConnect Configuration

EasyConnect Mode

Mode:

WLAN Client

WLAN-SSID

WLAN-Password

WLAN Country

Mode:

PLC-IP-Address

PLC-NetMask

PLC-Gateway

Fig. 7: Operation as WLAN-Client Mode – with static IP-Address

1. Enter the parameters of the WLAN network to which the gateway or controller is to connect. A connection can only be established if the network has been set up with WPA2 encryption.
2. **IMPORTANT: Select WLAN Country according to the operating location!**
3. STATIC Mode - the client uses a static network configuration.
4. Network configuration of the client - must be selected according to the network configuration of the access point. The IP address must not come from the DHCP range of the access point.
5. Accept and save the configuration - the settings are active after a restart of the controller.

5.2 Diagnostic information



DC2004W DUAL Q TS 0.8S 1131 NTL - 270010700

(plcactive)

Configuration

- [Network](#)
- [CAN](#)
- [Time and Date](#)
- [Display](#)
- [FTP-Server](#)
- [SSH-Server](#)
- [WEB-Server](#)
- [Users](#)
- [SVC Config](#)
- [Easy-Connect](#)
- [Config Protection](#)
- [Reset Config](#)

System

- [Info](#)
- [Licenseinfo](#)
- [Screenshot](#)
- [Update](#)
- [Reboot](#)

PLC-Manager

- [Control](#)
- [Config](#)
- [Application Info](#)
- [Application Files](#)
- [Font Files](#)

Diagnostics

- [PLC Log](#)
- [System Log](#)
- [Ethernet](#)
- [CAN](#)
- [Storage](#)
- [Easy-Connect Log](#)
- [system Dump](#)

System Log

```
iwconfig
wlan0 IEEE 802.11 ESSID:"Wildsau"
Mode:Managed Frequency:2.442 GHz Access Point: 50:C7:BF:9B:2E:CB
Bit Rate=72.2 Mb/s Tx-Power=20 dBm
Retry short limit:7 RTS thr:off Fragment thr:off
Encryption key:off
Power Management:off
Link Quality=59/70 Signal level=-61 dBm
Rx invalid nwid:0 Rx invalid crypt:0 Rx invalid frag:0
Tx excessive retries:0 Invalid misc:0 Missed beacon:0

ifconfig
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
inet 127.0.0.1 netmask 255.0.0.0
inet6 ::1 prefixlen 128 scopeid 0x10<host>
loop txqueuelen 1000 (Local Loopback)
RX packets 170 bytes 14736 (14.3 KiB)
RX errors 0 dropped 0 overruns 0 frame 0
```

Console Log

```
-- Logs begin at Thu 2019-02-14 10:12:02 GMT, end at Mon 2020-04-20 13:03:09 BS
Feb 06 05:17:20 pi-connect systemd[1]: /etc/systemd/system/pi-connect.service:5
Feb 06 05:17:20 pi-connect systemd[1]: Starting pi-connect.service...
Feb 06 05:17:20 pi-connect pi-connect-starter[366]: Init: Executing pi-connect-
Feb 06 05:17:24 pi-connect pi-connect-starter[366]: --2020-02-06 05:17:24-- ht
Feb 06 05:17:24 pi-connect pi-connect-starter[366]: Connecting to 172.32.89.3:9
Feb 06 05:17:24 pi-connect pi-connect-starter[366]: HTTP request sent, awaiting
Feb 06 05:17:24 pi-connect pi-connect-starter[366]: 2020-02-06 05:17:24 ERROR 4
Feb 06 05:17:24 pi-connect pi-connect-starter[366]: --2020-02-06 05:17:24-- ht
Feb 06 05:17:24 pi-connect pi-connect-starter[366]: Connecting to 172.32.89.3:9
Feb 06 05:17:24 pi-connect pi-connect-starter[366]: HTTP request sent, awaiting
Feb 06 05:17:24 pi-connect pi-connect-starter[366]: Length: 171 [application/oct
Feb 06 05:17:24 pi-connect pi-connect-starter[366]: Saving to: /root/pi-conne
Feb 06 05:17:24 pi-connect pi-connect-starter[366]: OK
Feb 06 05:17:24 pi-connect pi-connect-starter[366]: 2020-02-06 05:17:24 (1.79 M
Feb 06 05:17:24 pi-connect pi-connect-starter[366]: Init: Getting config from p
Feb 06 05:17:25 pi-connect pi-connect-starter[366]: Init: Starting pi-connect n
Feb 06 05:17:25 pi-connect pi-connect-starter[366]: cat: /etc/sercheck: No such
Feb 06 05:17:25 pi-connect pi-connect-starter[366]: Startup: Executing pi-conne
Feb 06 05:17:25 pi-connect pi-connect-starter[366]: Startup: Starting pi-contr
Feb 06 05:17:25 pi-connect pi-connect-starter[366]: Startup: Turning off wlan p
```

Kernel Log

```
[ 0.000000] Booting Linux on physical CPU 0x0
```

Fig. 8: Diagnostic log for connections

The log file for the B-EasyConnect gateway can be viewed in the web interface using the corresponding menu item (e.g. for diagnostic purposes).

6 Operation

6.1 Switching on and off

The device starts automatically as soon as it is supplied with power. The operation modes previously configured via the web interface of the connected controller are uploaded to the EasyConnect gateway and start automatically.

The device switches off automatically as soon as the power supply is disconnected or the connected controller is switched off. Further action by the user is not necessary.

NOTE

Damage or malfunction

Do not plug, connect, disconnect or touch any connections during operation. Never remove the memory card during operation. Before working on the device, switch off or disconnect all power supplies, including those of connected peripherals (controller, programming devices, etc.).

7 Service and maintenance

The device may only be serviced and repaired by the manufacturer.

7.1 Maintenance

The device is maintenance-free when used as intended.

NOTE

Unregulated, unpredictable operation!

Failure or malfunction can lead to an uncontrolled and unpredictable operating sequence. Do not plug, connect, disconnect or touch any connections during operation. Before working on the device, switch off or disconnect all power supplies, including those of connected peripherals (controller, programming devices, etc.).

Do not open the device. If it is necessary to work inside the device, contact customer service

7.2 Cleaning the device

Clean surfaces only with a dry or slightly damp, lint-free cloth.

NOTE

Damage to the equipment!

The housing is made of plastic and must not be exposed to mechanical or chemical stresses. Protect the operating equipment from excessive moisture and wetness. Do not use high-pressure cleaners or steam cleaners. Do not use corrosive cleaning agents, thinners, abrasive cleaners or hard objects. Do not apply excessive pressure and do not bend or twist operating equipment. Do not place heavy, hard or sharp-edged objects on the device.

8 Disassembly

1. Disconnect the device and its peripherals from the power supply.
2. Disconnect all plug connectors and cables.

9 Disposal

The device contains the following components that must be disposed of separately:

- Cables
- Electronics components
- Plastics

The respective national regulations for the disposal of electrical equipment in B2B apply.

The following options are available for disposing of the device:

Disposal via the manufacturer

Unless otherwise agreed, equipment may be returned to the manufacturer for disposal.

Disposal according to regional regulations

- ▶ Dismantle the device and completely disassemble it into its individual parts.
- ▶ Dispose of metal parts for metal recycling.
- ▶ Send individual plastic parts for plastic recycling.
- ▶ Sort electronic parts (printed circuit boards, drives, etc.).
- ▶ Dispose of electronic scrap in accordance with national regulations and laws.

10 Technical Data

Description	B-EasyConnect
Order Number	S-02040102-0000
Dimensions BxHxT [mm]	72 x 11 x 37
Color	white
Weight	26g
Certification	CE-compliant
Configuration	via configuration file of the connected control system supported modes: - WLAN Access Point - WLAN Client
CPU	Raspberry Pi Zero W
WLAN	IEEE 802.11 b/g/n
Frequency Band(WLAN)	2,4 GHz
Antenna	integrated
Transmission power	Max. 17,0dBm or 50 mW
Power supply	USB Bus powered, no additional supply needed, power supply via USB cable from the connected controller(5 VDC ; 0,7 W)

10.1 Operation conditions

Conditions for proper operation	
Operation	Data
Ambient temperature	0 °C bis 55 °C (when complying with the installation instructions)
Relative humidity	max. 85 %, non condensing
Transport and storage	
Ambient temperature	-20 °C to +70 °C
Relative humidity	max. 85 %, non condensing

10.2 Supported Wi-Fi-Standards

Your B-EasyConnect supports the following IEEE standards:

Standard	Frequency Band	Communication speed (Gross)
802.11b	2,4GHz	11 Mbit/s maximum
802.11g	2,4GHz	54 Mbit/s maximum
802.11n	2,4GHz	150 Mbit/s maximum

The net transmission speed corresponds to the transmission speed of the user data.

Which standard is used in a WLAN depends on the settings of the base station. The B-EasyConnect must use the same standard and frequency band as the WiFi base station (router or access point).

11 Product Conformity

11. Standards and certificates

Applicable directives

- Radio Equipment directive 2014/53/EU
- RoHS directive 2011/65/EU (including supplement 2015/863)

Additionally meets the basic requirements of the directives

- EMC directive 2014/30/EU

Applied Standards

- EN 61131-2:2007
- EN 61000-6-2:2005/AC:2005
- EN 61000-6-3:2007/AC:2011
- EN 62311:2008
- EN 62368-1:2014/AC:2015

11.1 Declaration of conformity

Declarations of conformity are also available on our website.

<https://www.berghof-automation.com/downloads>

Navigate to the respective product for download.

ZERTIFIKAT / CERTIFICATE

S. 1/1

EU-Konformitätserklärung

Declaration of conformity

Hiermit erklären wir in alleiniger Verantwortung, dass die nachstehend bezeichneten Geräte in ihrer Konzeption und Bauart sowie in der von uns in Verkehr gebrachten Ausführung die aufgeführten Harmonisierungsrechtsvorschriften der EU erfüllen. Bei einer mit uns nicht abgestimmten Änderung der Geräte verliert diese Erklärung ihre Gültigkeit.

We hereby declare under our sole responsibility, that the following described modules in their conception, construction and introduced form are in conformity with the listed EU harmonization legislation. In case of any alteration of the modules, not certified by us, this declaration becomes invalid.

Hersteller / manufacturer	Berghof Automation GmbH Arbachtalstraße 26 D-72800 Eningen
Produktbezeichnung / product name	B-EasyConnect
Produktnummer / product number	S-02040102-0000

Angewandte EU-Richtlinien / applied EU directives

2014/53/EU	Funkanlagen-Richtlinie / Radio Equipment Directive
2011/65/EU (auch 2015/863/EU)	RoHS-Richtlinie (RoHS III)

Angewandte harmonisierte Normen / applied harmonised standards

EN 62368-1:2014/AC:2015	Einrichtungen für Audio/Video-, Informations- und Kommunikationstechnik
EN 62311:2008	Bewertung von elektrischen und elektronischen Einrichtungen in Bezug auf Begrenzungen der Exposition
EN 61000-6-2:2005/AC:2005	Elektromagnetische Verträglichkeit (EMV) - Teil 6-2: Störfestigkeit für Industriebereiche
EN 61000-6-3:2007/AC:2011	Elektromagnetische Verträglichkeit (EMV) - Teil 6-3: Störaussendung für Wohnbereich, Geschäfts- und Gewerbebereiche sowie Kleinbetriebe
EN 61131-2:2007	Speicherprogrammierbare Steuerungen - Teil 2: Betriebsmittelanforderungen und Prüfungen

Das Produkt entspricht allen einschlägigen Bestimmungen der oben genannten angewandten EU-Rechtsvorschriften - einschließlich deren zum Zeitpunkt der Erklärung geltenden Änderungen.

The Product meets all essential requirements of the above-mentioned applied EU legislation directives including any amendments valid at the time of declaration.

25.11.2020

Datum
Date

Marc Finger

Geschäftsführer Berghof Automation GmbH
CEO Berghof Automation GmbH

i. V. Dr. Arno Rabold

Projektleiter
Project Manager

Berghof Automation GmbH | Arbachtalstraße 26 | 72800 Eningen | www.berghof-automation.com

12 Customer services / addresses

Repairs and corrective maintenance may be carried out only by the manufacturer or authorised customer service centres.

12.1 Customer service

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13 Appendix

13.1 Notes on copyright and license of the software

The firmware of the device contains software components that are licensed by the copyright holders as free software.

These parts are available under the following and other OpenSource licenses:

- GPL (GNU General Public License), Version 1/Version 2/Version 3
- GNU Lesser General Public License (LGPL), Version 2.1/Version 3
- Mozilla Public License (MPL)
- FreeType License (FTL)

You can view and download the valid license conditions for the software components contained in the device in our download area (<https://www.berghof-automation.com/downloads/>) under the category "IOT solutions → B-EasyConnect".

This software is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

Anyone can obtain the source code for these software components from us on a data carrier (CD-ROM, DVD or USB memory stick). This offer is valid within three years after the most recent distribution of the object code by us.

Please send your request to the following email address:

support-controls@berghof.com

or via regular mail to the following address:

Berghof Automation GmbH
Arbachtalstrasse 26
72800 Eningen
Deutschland

Please specify the address to which you wish us to send the source code. Additional product information (e.g. explicit product name, serial number etc.) will help us to identify the corresponding source code for you. The source code will be sent to the given address after reimbursement of the expenses actually incurred for providing the data carrier and shipping.

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