Product Manual

ABB i-bus® KNX
USB Interface
USB/S 1.1

Intelligent Installation Systems

This manual describes the function of the USB Interface USB/S 1.1.
Subject to changes and errors excepted.

Exclusion of liability:
Despite checking that the contents of this document match the hardware and software, deviations cannot be completely excluded. We therefore cannot accept any liability for this. Any necessary corrections will be incorporated in new versions of the manual.
Please inform us of any suggested improvements.

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1 General

The USB interface is used for connecting a PC via USB for programming and diagnostics with ETS3 and higher. LED display for connection and data transfer.

1.1 Using the product manual

This manual provides you with detailed technical information relating to the function, installation and programming of the ABB i-bus® KNX USB Interface USB/S 1.1.

The manual is divided into the following sections:

Chapter 1	General
Chapter 2	Device technology
Chapter 3	Commissioning
Chapter A	Appendix

2 Device technology

2.1 USB Interface USB/S 1.1, MDRC

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USB/S 1.1

The USB Interface USB/S 1.1 facilitates communication between the PC and the KNX system. Data transfer is indicated by the KNX LED and the USB LED. The USB Interface can be used from ETS 3 V1.0 or higher.

The USB Interface is simply connected to the ABB i-bus® KNX and subsequently to the USB. The USB interface is automatically detected and installed by the PC operating system.

The ABB i-bus® KNX connection is implemented with the bus connection terminal provided on the front of the device. The connection to the USB is also undertaken on the front of the device.

2.1.1 Technical data

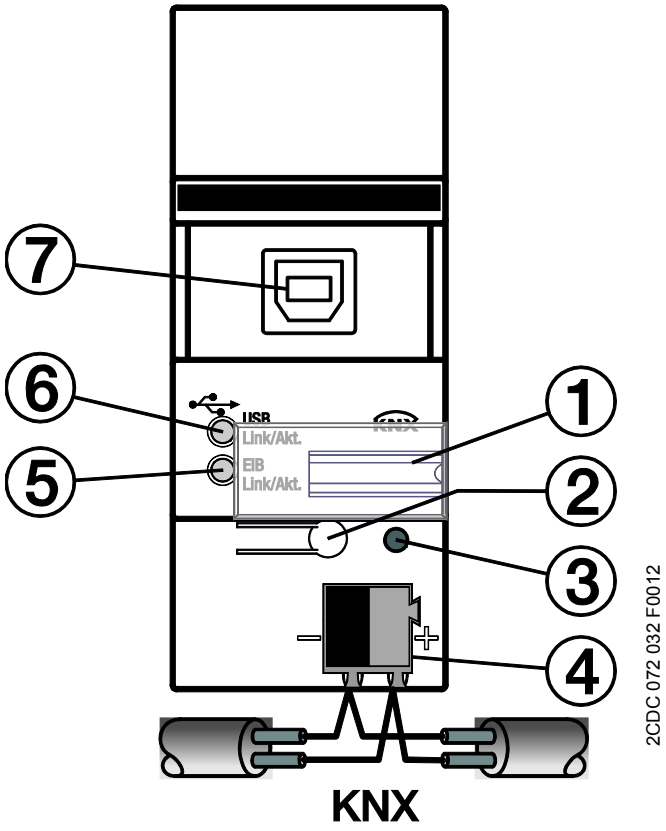
Rated voltage	ABB i-bus® KNX	Typically 30 V DC (21 ... 32 V DC)
	Max. current consumption from the ABB i-bus® KNX	< 12 mA at 20 V ABB i-bus® KNX voltage
	Max. leakage loss ABB i-bus® KNX	240 mW
	USB voltage	5 V DC
	Max. current consumption from the USB	60 mA
	Max. leakage loss USB	300 mW
	Max. total leakage loss ABB i-bus® KNX and USB	540 mW
Interface	USB	USB Standard 1.1
Operating and display elements	Programming LED	For assignment of the physical address
	Programming button	For assignment of the physical address
Connections	ABB i-bus® KNX	Via bus connection terminals, screwless
	USB	Via USB socket type B, max. cable length 5 m (standardized)
Temperature range	Operation	-0 °C…+45 °C
	Storage	-25 °C…+55 °C
	Transport	-25 °C…+70 °C
Enclosure	IP 20	To EN 60 529
Safety class	Class II	
Installation	On 35 mm mounting rail	To EN 60 715
Weight	in kg	0.12
Housing/colour	Plastic housing, grey	

ABB i-bus® KNX
Device technology

Design	Modular installation device (MDRC)	Modular installation device, Pro *M*
	Dimensions	90 x 36 x 64.5 (H x W x D)
	Mounting width in space units (modules at 18 mm)	2
	Mounting depth in mm	64.5
Installation	On 35 mm mounting rail	To EN 60 715
Mounting position	As required	
Approvals	KNX	Certification
CE mark	In accordance with the EMC guideline and low voltage guideline	

Device type	Application program	Maximum number of communication objects	Maximum number of group addresses	Maximum number of associations
USB Interface /1		0	0	0

2.1.2 Circuit diagram



1 Label carrier

2 Button *Programming*

3 LED *Programming* ● (red)

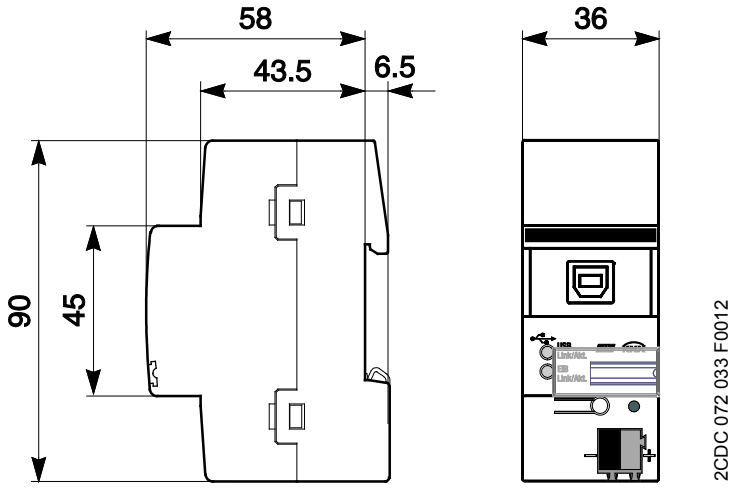
4 Bus terminal connection

5 KNX LED

6 USB LED

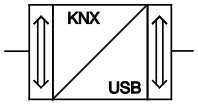
7 USB socket

2.1.3 Dimension drawing



3 Commissioning

3.1 USB Interface /1



Selection in ETS2

– ABB i-bus® KNX
  └ Communication
    └ USB

3.1.1 Commissioning requirements

The USB Interface USB/S 1.1 runs under the following operating systems: Microsoft Windows 98, NT, 2000, ME, XP-Professional and XP-Home.

When running Microsoft Windows 98, it is important to note that with a connected USB interface, the file HIDDEV.INF must be installed in the directory Windows/INF, using the Microsoft Windows hardware assistant.

The interface is fuly functional on an active hub with an external power supply. This is not the case on a passive hub without an external power supply, as the device is supplied from the USB as well as from the ABB i-bus® KNX.

After the PC boots up and ETS 3 has started, the USB Interface is first of all connected to the ABB i-bus® KNX and then to the USB.

3.1.2 Application description

No application program is required for operation of the USB/S 1.1. A dummy application exists for documentation purposes in the ETS. This can be imported into the ETS 3 in the usual way. A message indicating that this is a dummy application is displayed on the first parameter page. There are no parameters or communication objects. The physical address can be set via the ABB i-bus® KNX as well as locally.

3.1.3 Display

The KNX LED lights up as soon as the ABB i-bus® KNX device is connected and ready for operation. It flashes as soon as there is telegram traffic on the ABB i-bus® KNX.

The USB LED lights up as soon as the ABB i-bus® KNX and USB devices are connected and ready for operation. It flashes as soon as there is telegram traffic between the USB and ABB i-bus® KNX.

A Appendix

A.1 Ordering information

Device type	Product name	Order No.	bbn 40 16779 EAN	Price group	Weight 1 pc. [kg]	Pack unit [pc.]
USB/S 1.1	USB Interface, 2-fold, MDRC	2CDG 110 008 R0011	**58921 5**	P2	0.12	1

Notes

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Publication Number 2CDC 502 042 D0202 (10.12)

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