



**Automations- und
Steuerungstechnik GmbH**

Product description

KNXGuard



The EIB security device

Order codes:

KNXGuard highest security: E001-H017001

KNXGuard high security: E001-H017002

KNXGuard customized: E001-H017003



IMPORTANT-READ CAREFULLY:

This b+b End-User License Agreement ("EULA") is a legal agreement between you (either an individual or a single entity) and F b+b Automations- und Steuerungstechnik GmbH, for the software product identified above, which includes computer software and may include associated media, printed materials, and "online" or electronic documentation ("SOFTWARE PRODUCT"). By installing, copying, or otherwise using the SOFTWARE PRODUCT, you agree to be bound by the terms of this EULA.

SOFTWARE PRODUCT LICENSE

1. COPYRIGHT TREATIES

The SOFTWARE PRODUCT is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. The SOFTWARE PRODUCT is licensed, not sold.

2. GRANT OF LICENSE.

This EULA grants you the following rights:

- a. Software Product. b+b grants to you as an individual, a personal, nonexclusive license to make and use copies of the SOFTWARE for the sole purposes of using the SOFTWARE's functionality.
- b. Storage/Network Use. You may also store or install a copy of the SOFTWARE PRODUCT on a storage device, such as a network server, used only to install or run the SOFTWARE PRODUCT on your other computers over an internal network; however, you must acquire and dedicate a license for each separate computer on which the SOFTWARE PRODUCT is installed or run from the storage device. A license for the SOFTWARE PRODUCT may not be shared or used concurrently on different computers.
- c. Electronic Documents. Solely with respect to electronic documents included with the SOFTWARE PRODUCT, you may make an unlimited number of copies (either in hardcopy or electronic form), provided that such copies shall be used only for internal purposes and are not republished or distributed to any third party.

3. DESCRIPTION OF OTHER RIGHTS AND LIMITATIONS.

- a. Limitations on Reverse Engineering, Decompilation, and Disassembly. You may not reverse engineer, decompile, or disassemble the SOFTWARE PRODUCT.
- b. Separation of Components. The SOFTWARE PRODUCT is licensed as a single product. Its component parts may not be separated for use on more than one computer.
- c. Changing documentations. You may not make changes to the documentation of the SOFTWARE PRODUCT.
- d. Termination. Without prejudice to any other rights, b+b may terminate this EULA if you fail to comply with the terms and conditions of this EULA. In such event, you must destroy all copies of the SOFTWARE PRODUCT and all of its component parts.



4. COPYRIGHT.

All title and copyrights in and to the SOFTWARE PRODUCT (including but not limited to any images, photographs, animations, video, audio, music, text, and "applets" incorporated into the SOFTWARE PRODUCT), the accompanying printed materials, and any copies of the SOFTWARE PRODUCT are owned by b+b or its suppliers. The SOFTWARE PRODUCT is protected by copyright laws and international treaty provisions. Therefore, you must treat the SOFTWARE PRODUCT like any other copyrighted material except that you may install the SOFTWARE PRODUCT on a single computer provided you keep the original solely for backup or archival purposes. You may not copy the printed materials accompanying the SOFTWARE PRODUCT.

5. LIMITED WARRANTY

Except with respect to the REDISTRIBUTABLES, which are provided "as is," without warranty of any kind, b+b warrants that (a) the SOFTWARE PRODUCT will perform substantially in accordance with the accompanying written materials for a period of ninety (90) days from the date of receipt, and (b) any hardware accompanying the SOFTWARE PRODUCT will be free from defects in materials and workmanship under normal use and service for a period of one (1) year from the date of receipt.

6. CUSTOMER REMEDIES.

b+b's entire liability and your exclusive remedy shall be, either (a) return of the price paid, or (b) repair or replacement of the SOFTWARE PRODUCT or hardware that does not meet b+b Limited Warranty. This Limited Warranty is void if failure of the SOFTWARE PRODUCT or hardware has resulted from accident, abuse, or misapplication.

NO OTHER WARRANTIES: TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, b+b DISCLAIMS ALL OTHER WARRANTIES

NO LIABILITY FOR CONSEQUENTIAL DAMAGES: TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL b+b OR ITS SUPPLIERS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES WHATSOEVER (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, LOSS OF BUSINESS INFORMATION, OR ANY OTHER PECUNIARY LOSS) ARISING OUT OF THE USE OF OR INABILITY TO USE THE SOFTWARE OR HARDWARE PRODUCT, EVEN IF b+b HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Life support:

These products are not designed for use in life support appliances, devices or systems where malfunction of these products can reasonably be expected to result in personal injury. b+b customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify b+b for any damages resulting from such application.

Copyright 1998 - 2009 b+b Automations- und Steuerungstechnik GmbH. All rights reserved.



Contents

Highlights	5
Fields of application	5
Contents of delivery	5
Introduction.....	6
The different KNXGuard types:	7



Highlights

- Protects your EIB system from unwanted programming access
- Alarming
- Can be used as an ACK device
- No physical address needed

Fields of application

- Protection of EIB-installations against sabotage

Contents of delivery

- KNXGuard
- Documentation



Introduction

Many of our customers asked for protection against unwanted access and sabotage in their EIB systems.

Everybody can use the ETS software, connect to the EIB, and read or even write the installed devices. A password can be activated with newer BCU2 devices, but of course this password can get spied out.

Example 1:

There is much work involved in programming an EIB system. But all that work can get easily destroyed if somebody would delete, for example, all the address tables or physical addresses of the installed devices.

To repair such an attack, each and every device has to be found, to activate its programming button. If another device now already is parametrized with this physical address, this device has to be found first, to repair its address. And if the devices are installed inside of walls or ceilings, the costs would get extremely high.

Example 2:

Your own customer "optimizes" the EIB device settings. Of course shortly after he will call you because his EIB system doesn't work right anymore. You try to correct the settings, changing EIS types of the new group addresses, etc. But still it may happen that some changes will not be noticed on the spot (or ever), the EIB system reacts strangely. But now you have been the last person making changes to the EIB, you have to grant the correct function. A situation which often leads to court.

Example 3:

Your customer doesn't pay your work on his EIB installation, and claims that there are problems. Another company now is reading and changing the EIB system, to repair the claimed problems – and fails – the EIB now really doesn't work anymore. The question in court will be: who is responsible for the problems? Your original installation, or the later done changes?

Example 4:

In a big house with several families (each apartment has its own EIB line, connected on a common backbone) one family member opens up the filter tables in the line couplers and sends 'funny telegrams' to the other apartments. Or he is reprogramming devices in the other lines. Or, most fatal: he changes the port direction registers inside the devices, and damage them beyond repair.

The KNXGuard device will protect you from all of this.



The different KNXGuard types:

To program a bus device, a point-to-point connection has to get established (physical telegrams), to „open“ the device and send the physical programming telegrams.

KNXGuard type "Highest security "

The „Highest security“ KNXGuard will prevent any physical telegrams on the EIB. That way it is impossible to change anything in any device.

KNXGuard type "High security "

Some physical telegrams will be allowed on the bus: the reading telegrams. Therefore devices can get read or polled, but still no physical writetelegrams are possible.

KNXGuard type "User defined"

That type is having the same functions as the „High security“ device, but you can activate/deactivate this type of KNXGuard by sending special telegrams (using the EIBDoktor). The telegrams will be send to the broadcast address 15/7/255, inside the telegram is the serial number of the KNXGuard and a special security code, using an RSA algorithm: somebody else can protocol the telegrams to deactivate the KNXGuard, but that will be useless, since the telegrams are only correct at a special time, so sending the same telegram later is having no effect at all.

Requirements for all KNXGuard devices:

You have to install an KNXGuard into every line you want to protect: security on the „backbone“ will not grand security in lower lines most times.

Alarming

You can define an „Alarming group address“, the KNXGuard will send a telegram to this address each time somebody is trying to do an illegal access. This telegram can be used to display a warning inside a visualization software, for example.

ACK functionality

The KNXGuard also acts as an „ACK device“, which means that it will acknowledge all groupaddress-telegrams, and prevents unnecessary busload this way. This will not affect the function of the EIB, damaged telegrams will still get repeated.

No physical address

The KNXGuard acts as an „invisible“ device, it will not get used inside the ETS project. The ETS is also not able to detect the KNXGuard. Therefore the KNXGuard does not need a physical address.