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ELAUSYS
ANB-KNX

KNX Interface for
AnB Rimex TRICOM alarm system

User Manual

Document history			
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1. INTRODUCTION

The KNX interface module ANB-KNX is a KNX gateway for the AnB Rimex TRICOM alarm systems. It allows to send status from the alarm system to KNX using the RS485 bus from the alarm system.

Integrators can take advantage of a fully integrated alarm system, partition status, sensors status, automatic lighting using the motion detectors,…

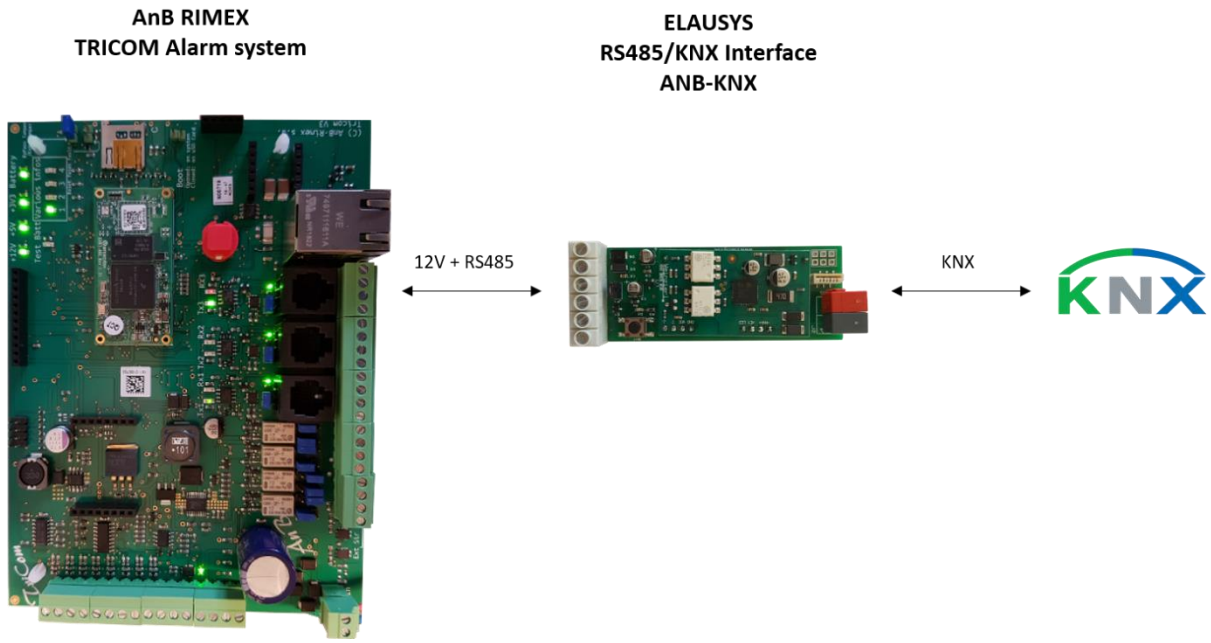
Main features:

- KNX Interface for TRICOM alarm systems
- **Up to 96 configurable status** in real time
- Built-in termination resistor for RS485
- Communication fault monitoring
- Galvanic insulation from the KNX bus
- Optional DIN-Rail housing

2. OVERVIEW

2.1 USAGE & LIMITATION

This interface is intended to be used with a ANB RIMEX TRICOM series alarm system using one of the on board RS485 communication port of the alarm system.



The KNX gateway is compatible with the following version of the alarm system and above:

- Trinity: 2.2.13-R
- TriCom: V018

2.1 SOFTWARE

The KNX Interface is configured using the ETS tool, the free ETS Demo version can be downloaded from the website of KNX Association. The free version allows to configure up to 5 KNX modules in a project.

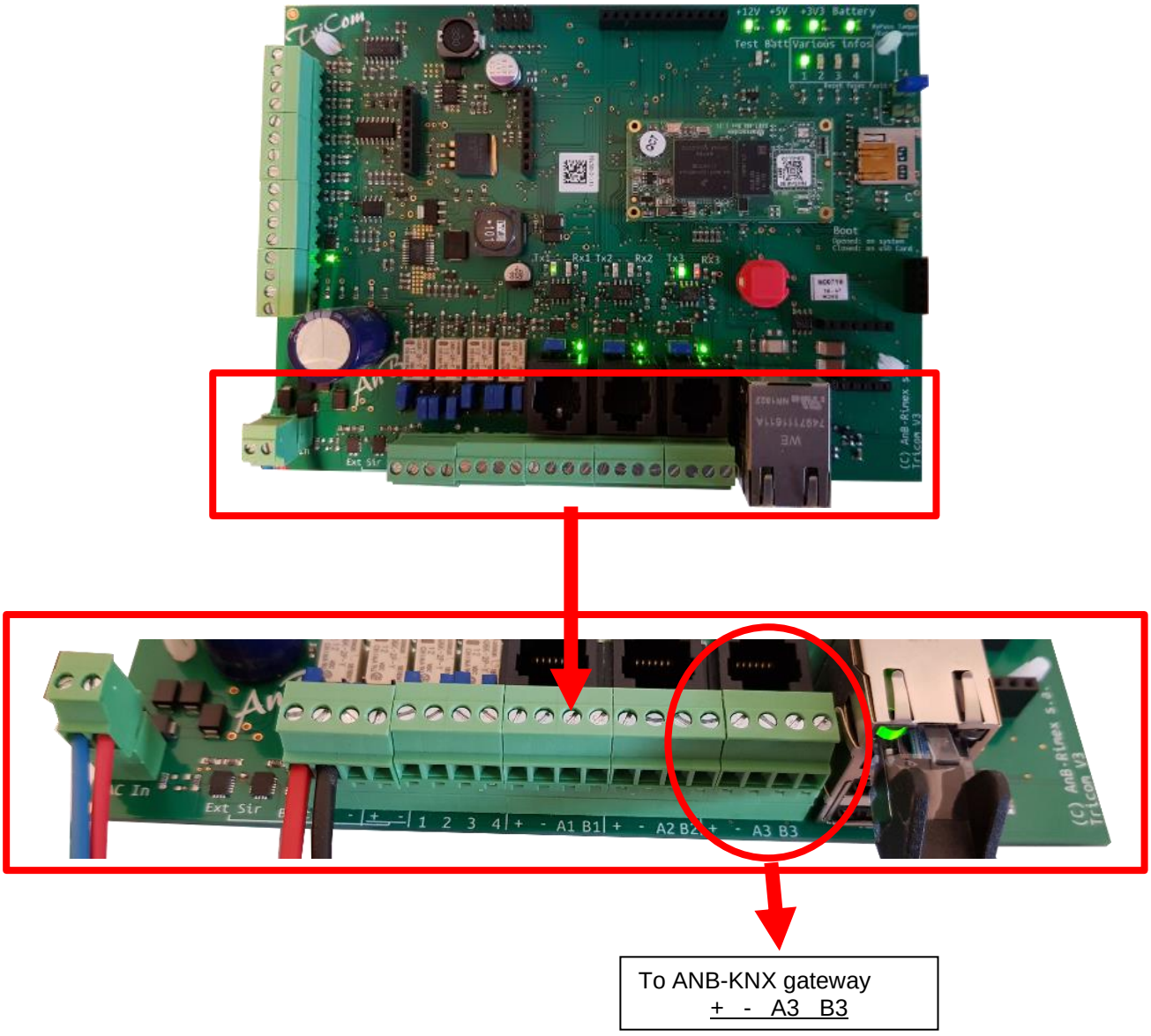
The product database “ELAUSYS ANB-KNX” is available on our website or in the ETS online catalog.

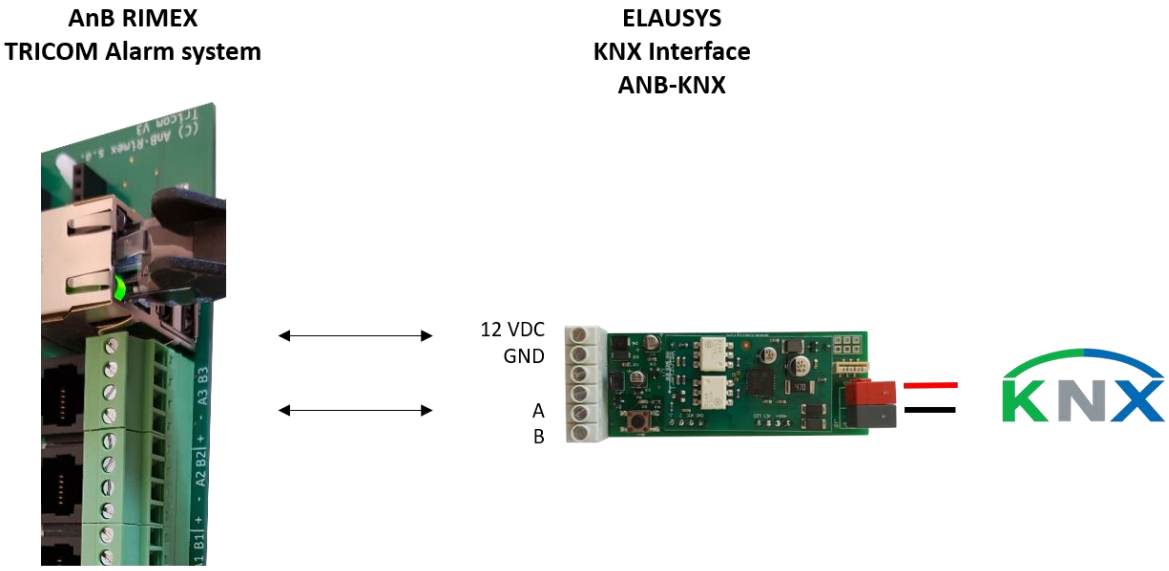
2.2 CONNECTION DIAGRAM

Elausys ANB-KNX module is supplied from the TRICOM 12 VDC power supply.

The RS485 bus must be interconnected between the TRICOM and the ANB-KNX interface using the screw terminals on both boards. The termination resistor is already integrated on the KNX interface module.

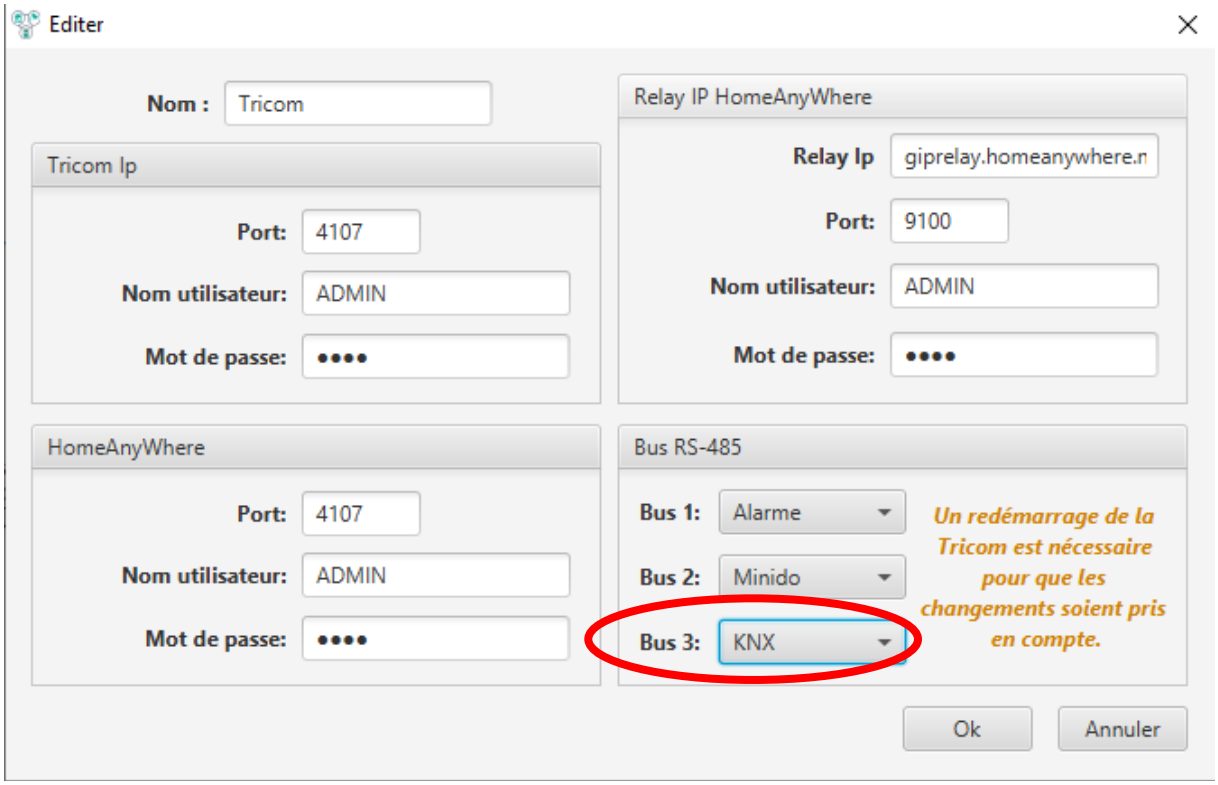
The KNX gateway ANB-KNX must be connected to the **third bus of the TriCom** as below :





2.3 TRICOM CONFIGURATION

In the TriCom programming software, the bus 3 should be selected for the KNX interface.
In Trinity, this bus is defined as below:



It is possible to install 2 ANB-KNX on this bus to be able to monitor the status of up to 192 program steps on KNX.

Program steps 1-> 96 on interface ANB-KNX 1
Program steps 97-> 192 on interface ANB-KNX 2

By configuring the program steps of the TriCom, it is therefore possible to send the status of detectors or areas (arming/disarming,…) to KNX.

NOTE : Program step 0 should not be used as it will not be transferred to KNX.

3. PARAMETERS

In the ETS project, The KNX interface parameters are defined in the “parameters” tab of the device.

3.1 GENERAL SETTINGS

All parameters are available in the General section of the device parameters, however, the TRICOM only uses zone status, therefore only the parameters below are applicable.

PARAMETER	VALUES	DESCRIPTION
Use Zone Status	▪ Not used ▪ **Used (default)**	When this parameter is set to “Used”, the zone status group objects are made available.
Number of zones	▪ **16 (default)** ▪ 32 ▪ 48 ▪ 64 ▪ 72 ▪ 96	Number of zone status group objects to be used.
Zones offset	▪ **0 (default)** ▪ **96**	An offset of 0 will use zones 1 to 96 from the alarm system whereas an offset of 96 will use zones 97 to 192

3.2 ZONE

Depending the general parameter “Number of zones”, up to 96 zones are listed in the group objects.

The status of each zone from the alarm system can be monitored by a Group object.

The general parameter “Zones offset” allow to use zones 1 to 96 from the alarm system or zones 97 to 192.

Each zone corresponds to a program step of the alarm system.
Example: Program step 2 correspond to Zone status 2.

4. COMMUNICATION OBJECTS

4.1 GENERAL

General communication objects of the device.

GO	NAME	DESCRIPTION
1	Module status	Sends 0 when the module is operating normally, sends an error code when applicable.
2	Firmware	Sends the firmware version of the device.

4.2 GROUP OBJECT LIST

GO	Name	Function	Size	Flags	Type ID	Type Name	Range	Description
1	Module status	Status code	1 byte	C R - T -	20.011	DPT_ErrorClass_System		Device error code
2	Firmware	Text string	14 bytes	C R - T -	16.000	DPT_String_ASCII		Device firmware version
3	PG1	On/Off	1 bit	C - W - -	1.001	DPT_Switch	0..1	PG – On/Off (NOT USED)
4	PG1 Status	On/Off	1 bit	C R - T -	1.001	DPT_Switch	0..1	PG – On/Off status (NOT USED)
5	PG2	On/Off	1 bit	C - W - -	1.001	DPT_Switch	0..1	PG – On/Off (NOT USED)
6	PG2 Status	On/Off	1 bit	C R - T -	1.001	DPT_Switch	0..1	PG – On/Off status (NOT USED)
…	*Same for PG3 to PG31*							
64	PG32	On/Off	1 bit	C - W - -	1.001	DPT_Switch	0..1	PG – On/Off (NOT USED)
66	PG32 Status	On/Off	1 bit	C R - T -	1.001	DPT_Switch	0..1	PG – On/Off status (NOT USED)
67	Zone 1 Status	On/Off	1 bit	C R - T -	1.001	DPT_Switch	0..1	Zone – On/Off status
68	Zone 2 Status	On/Off	1 bit	C R - T -	1.001	DPT_Switch	0..1	Zone – On/Off status
…	*Same for Zone 3 to 95*							
162	Zone 96 Status	On/Off	1 bit	C R - T -	1.001	DPT_Switch	0..1	Zone – On/Off status
163	AC Failure	On/Off	1 bit	C R - T -	1.001	DPT_Switch	0..1	On/Off status (NOT USED)
164	Battery Failure	On/Off	1 bit	C R - T -	1.001	DPT_Switch	0..1	On/Off status (NOT USED)
169	Virtual input 1	Open/Close	1 bit	C - W - -	1.001	DPT_Switch	0..1	Open/close input (NOT USED)
170	Virtual input 2	Open/Close	1 bit	C - W - -	1.001	DPT_Switch	0..1	Open/close input (NOT USED)
…	*Same for input 3 to 15*							

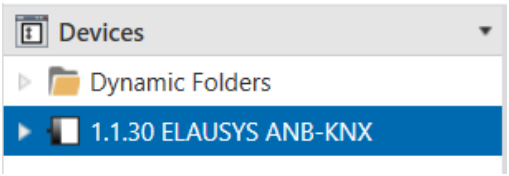
GO	Name	Function	Size	Flags	Type ID	Type Name	Range	Description
184	Virtual input 16	Open/Close	1 bit	C - W - -	1.001	DPT_Switch	0..1	Open/close input (NOT USED)
185	Area 1 - Arm	On/Off	1 bit	C - W - -	1.017	DPT_Switch	0..1	Arm Area (NOT USED)
186	Area 1 – Partial arm	On/Off	1 bit	C - W - -	1.017	DPT_Switch	0..1	Partial arm Area (NOT USED)
187	Area 1 – Disarm	On	1 bit	C - W - -	1.017	DPT_Trigger	0..1	Disarm Area (NOT USED)
188	Area 1 – state disarmed	On/Off	1 bit	C R - T -	1.001	DPT_Switch	0..1	Area state disarmed (NOT USED)
189	Area 1 – entry delay	On/Off	1 bit	C R - T -	1.001	DPT_Switch	0..1	Area entry delay status (NOT USED)
190	Area 1 – exit delay	On/Off	1 bit	C R - T -	1.001	DPT_Switch	0..1	Area exit delay status (NOT USED)
191	Area 1 – state armed	On/Off	1 bit	C R - T -	1.001	DPT_Switch	0..1	Area state armed status (NOT USED)
192	Area 1 – state partial armed	On/Off	1 bit	C R - T -	1.001	DPT_Switch	0..1	Area state partial armed status (NOT USED)
193	Area 1 – Fire alarm	On/Off	1 bit	C R - T -	1.001	DPT_Switch	0..1	Area fire alarm (NOT USED)
194	Area 1 – Siren ON	On/Off	1 bit	C R - T -	1.001	DPT_Switch	0..1	Area siren ON (NOT USED)
195	Area 1 – Panic alarm	On/Off	1 bit	C R - T -	1.001	DPT_Switch	0..1	Area panic alarm (NOT USED)
196	Area 1 – Intrusion alarm	On/Off	1 bit	C R - T -	1.001	DPT_Switch	0..1	Area intrusion alarm (NOT USED)
...	*Same for AREA 2 to 4*							
233	Call scene	-	1 Byte	C - - T -	18.001	DPT_SceneControl	1..64	Scene control (NOT USED)

5. CONFIGURATION

5.1 PHYSICAL DEVICE

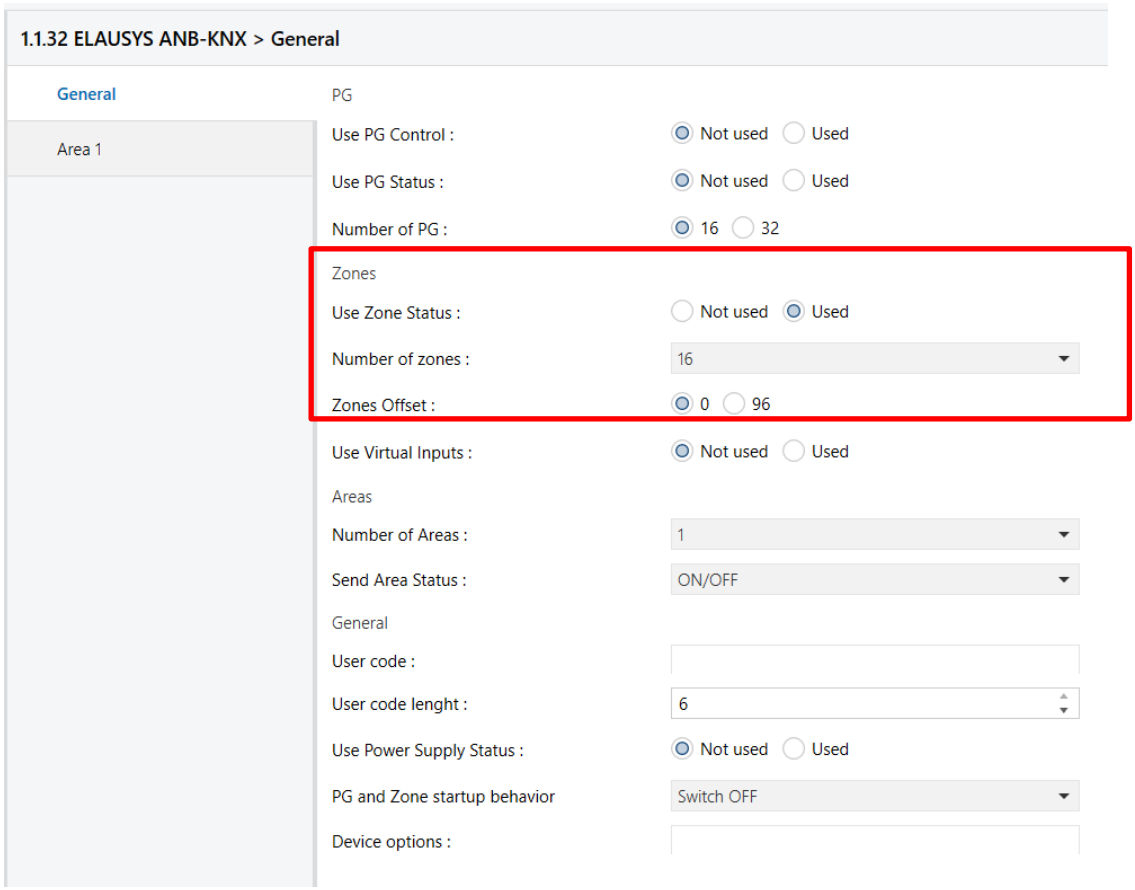
ELAUSYS devices are configured using the ETS tool. You should first download and install the free version of ETS tool before you continue.

The ANB-KNX Interface must be assigned a physical address on the KNX network. Assign a free address to the module, in our example we choose 1.1.30.



5.2 PARAMETERS

Once a KNX physical address is set, open the parameter tab to configure the interface.
Only the Zones settings in the General section are applicable for the ANB TRICOM:



In the general section, enable the zone status and select the number of zones to be used.

In case two ANB-KNX gateways are used in the same installation, the second gateway should be configured with a zone offset of 96.

5.1 GROUP OBJECTS

A group address (GA) must be assigned to each group object (GO) needed by the application.
Open the Group Objects tab of the device and assign a GA to the object zones as needed.

Number	Name	Object Function	Description	Group Addres	Length	C	R	W	T	U	Data Type	Priority
67	Zone 1 Status	On/Off	Zone status	4/0/1	1 bit	C	R	-	T	-	switch	Low
68	Zone 2 Status	On/Off	Zone status	4/0/2	1 bit	C	R	-	T	-	switch	Low
69	Zone 3 Status	On/Off	Zone status	4/0/3	1 bit	C	R	-	T	-	switch	Low
70	Zone 4 Status	On/Off	Zone status	4/0/4	1 bit	C	R	-	T	-	switch	Low
71	Zone 5 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
72	Zone 6 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
73	Zone 7 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
74	Zone 8 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
75	Zone 9 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
76	Zone 10 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
77	Zone 11 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
78	Zone 12 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
79	Zone 13 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
80	Zone 14 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
81	Zone 15 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
82	Zone 16 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
83	Zone 17 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
84	Zone 18 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
85	Zone 19 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
86	Zone 20 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
87	Zone 21 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
88	Zone 22 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
89	Zone 23 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
90	Zone 24 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
91	Zone 25 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
92	Zone 26 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
93	Zone 27 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
94	Zone 28 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
95	Zone 29 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
96	Zone 30 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
97	Zone 31 Status	On/Off			1 bit	C	R	-	T	-	switch	Low
98	Zone 32 Status	On/Off			1 bit	C	R	-	T	-	switch	Low

When GO and parameters are all configured, download the KNX Interface application to the device. The first download requires to press the programming button on the device to set the device in KNX programming mode then perform a full download.

6. FIRMWARE VERSION

This user manual and related ETS application is valid for firmware versions V1.00 and above.
A “Firmware” group object is available on the device to read the firmware version as a string. It is also automatically sent at power up.

Number	Name	Object Function	Description	Group Addres	Length	C	R	W	T	U	Data Type	Priority
1	Module status	Status code	ModuleStatus	0/0/1	1 byte	C	R	-	T	-	system error class	Low
2	Firmware version	Text string	Firmware	0/0/4	14 bytes	C	R	-	T	-	Character String (AS...	Low

7. DATASHEET

TECHNICAL DATA	VALUE
Power supply	External 12 VDC
Power consumption KNX bus typ.	< 6 mA
Operating temperature	5 to + 45°C
Enclosure	Optional DIN-rail enclosure 2TE
Dimensions (W x D x H)	89 x 29 x 20mm
Mounting	1 hole for mounting in the alarm control panel
KNX terminal	Pluggable micro terminal, Red/Black, 4 pole PUSH WIRE for solid conductor wire 0.6-0.8 mm²
12VDC input Terminal	Screw terminal (12VDC) / (GND)
RS485 terminal	Screw terminal (A) / (B)
Configurable zones	96
KNX bus voltage	29 VDC