Alarm control unit Connect
Order No. 5201 00

1. About the product

1.1. Product catalogue

Product name: Alarm control unit Connect
Order No.:   5201 00
Application: Alarm control unit
Design: Surface-mounted

1.2. Application

The alarm control unit Connect is a wireless alarm system and the core unit of the Gira Alarm Connect security system. The alarm control unit Connect is designed for indoor use to protect apartments, private homes and small or medium commercial properties.

Using a KNX IP router, the alarm control unit Connect can be integrated into a KNX installation. A KNX installation allows use of existing KNX sensors.

- Connects up to 64 wireless components including wireless operating unit, alarm signal units (wireless indoor siren, wireless outdoor siren) or wireless I/O module

- 4 security areas

- Encrypted-data access for setting up via Internet and Gira S1/Gira smart home app

- Gira G1 as client for Alarm Connect security system to act as additional operating and display unit

- Connects landline phone for remote alarming (optional: GSM module)

- In the event of mains failure, internal rechargeable battery pack takes over power supply for at least 12 hours

1.3. Device components
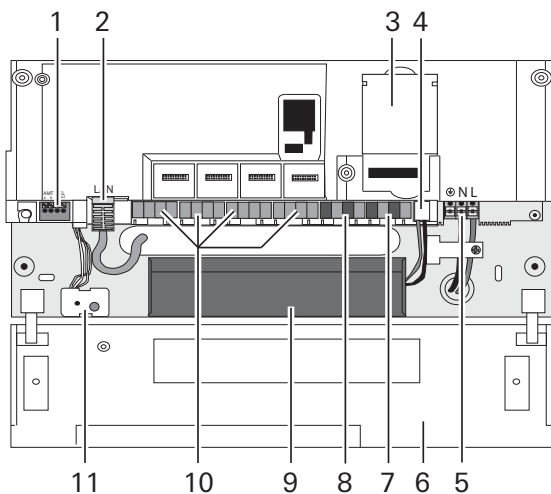
1	Connection: telephone
2	Connection: LAN (RJ45)
3	Slot: GSM module
4	Connection: Rechargeable battery pack
5	Connection: AC 230 V
6	Housing cover (open)
7	Plug terminals: Output
8	Plug terminals: Input
9	Rechargeable battery pack
10	Terminal plugs: reserved for future applications
11	Pairing button and status LED

1.4. State of delivery

When delivered, the device is in passive mode, i.e. it does not send telegrams through the bus. You can use ETS, version 5 or higher, and the Gira Project Assistant (GPA), version 4 or higher, to program and start up the alarm control unit.

IP address is assigned via DHCP. Should the alarm control unit not receive an address using this method, an auto IP (address range from 169.254.1.0 to 169.254.254.255) is issued after a certain waiting time.

You can also issue a static IP address via the ETS or the Gira Project Assistant. You can set IP address, IP subnet mask and IP standard gateway here.

1.5. Technical data

Power supply

External:	AC 230 V, 0.9 A, 50/60 Hz
Internal	Battery pack, rechargeable
Nominal power:	max. 30 W

Rechargeable battery pack

Type:	Lithium, rechargeable
Capacity:	5.8 Ah
Voltage:	7.2 V
Service life:	approx. 5 years
Battery pack charging time:	80% in 12 hours

Backup battery

Type:	CR1225
Service life:	approx. 5 years

Characteristics of electrical outputs

Per output:	max. 200 mA
Total outputs:	1 A

Wireless

Frequency band:	868.0 - 868.6 MHz
	868.7 - 869.2 MHz
Range:	100 m (free field)

Device – general

Connections:	
LAN:	RJ45
Phone:	Analog via terminal
Plug terminals:	2x input, 2x output
GSM module:	1 slot
Optical display:	Status LED (red/green)
Mounting height (recommended):	at least 1.5 m
Ambient temperature:	-10 °C to +55°C
Storage temperature:	-25 °C to +60 °C
Humidity:	93 %
Security class:	2
Environmental class:	II
Dimensions of housing (H x W x D):	285 x 170 x 30 mm (without adapter frame)
Dimensions of housing (H x W x D):	285 x 170 x 46 mm (with adapter frame)

2. Safety notes

Safety notes

Electrical devices may only be installed and connected by a qualified electrician.

Improper installation may result in serious injury, e.g. from electrical shock or fire, as well as equipment damage.

Do not open the device housing. Always observe the device's technical specifications.

This product contains a rechargeable battery. Keep new and used batteries away from children.

These instructions are part of the product and must remain with the end customer.

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3. Installation and electrical connection

3.1. Housing cover
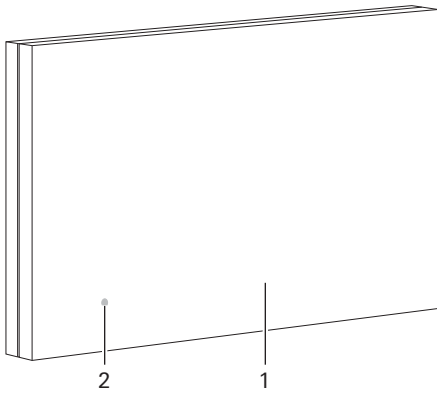
1   Housing cover (closed = position 0)
2   Status LED (under housing cover)

The alarm control unit only operates with the housing cover closed.

1   Mounting holes
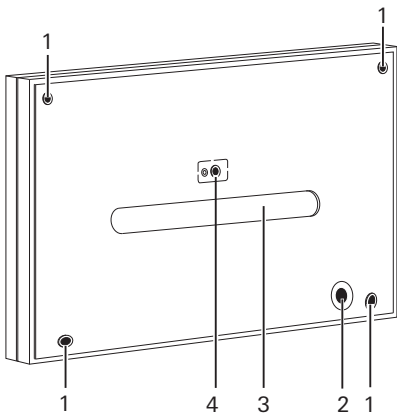2   Opening for mains power cable
3   Opening for Ethernet cable
4   Disconnecting surface for tamper contact

Position 0

Housing cover closed (factory settings). After connection to the battery pack and 230 V as well as project commissioning:

Housing cover closed = operating mode.

Position 1

Push the housing cover up until the screws of the hinged cover are exposed and the housing cover is noticeably blocked. Loosen the two screws in the hinged cover and push the housing cover further up (this position can only be achieved with the screws are loosened!). The housing cover can be removed.

Position 2
Housing cover removed = configuration mode.

Only the upper mounting holes and the slot of the GSM module are accessible when the hinged cover is closed. When the hinged cover is open, all connections (battery pack, LAN, telephone, etc.) and the mounting holes are accessible.
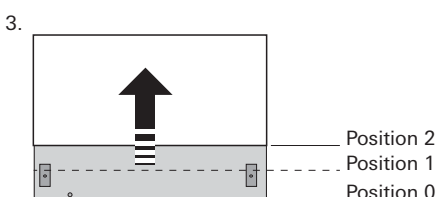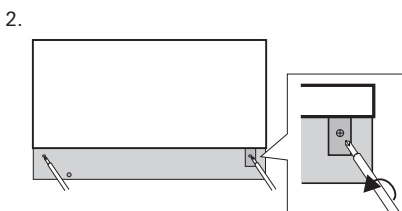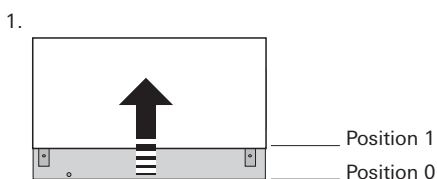
3.2. Installation

⚠ **DANGER!**

Lethal danger from electric shock.
De-energise the device. Cover live parts.

ℹ **Installation notes**

- Always mount in the main security area.

- Do not mount on external walls as these can be tampered with, e.g. opened up by drilling.

- Only mount in locations in which the temperature is constant (e.g. no direct sunlight).

- Choose the installation location so that it is within the detection range of a motion detector, or cannot be reached without triggering an alarm.

- Mount horizontally (the housing cover can only be opened upwards).

- Recommended mounting height: at least 1.50 m above the floor.

- Keep the alarm control unit at least 50 cm clear of ceilings, metal objects and other devices (unsuitable: metal doors or cabinets or direct vicinity of fuse boxes and electricity meters).

- Mounting methods other than wall mounting are not allowed.

- Select the installation location so that the wireless signals between the alarm centre and the wireless operating unit can be easily sent or received during test operation.

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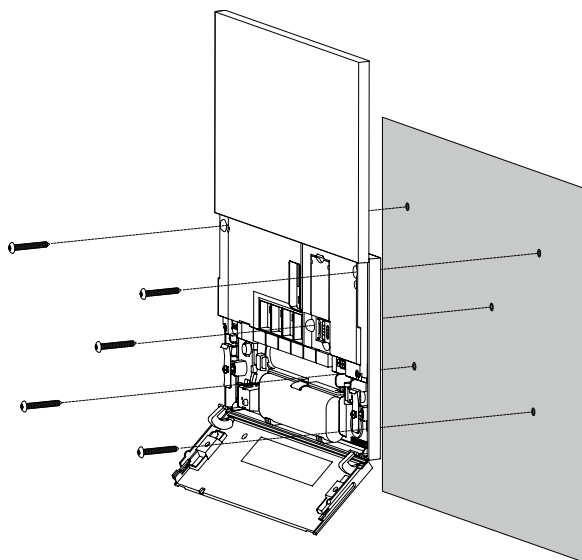
1. Unpack the alarm control unit.
2. Remove the housing cover.
3. Align the alarm control unit, mark the drilling holes, drill and insert the wall plugs.
4. Mount the alarm control unit. The disconnecting surface of the tamper contact (see "Rear Side - Device Description") must be secured with a screw.
5. Disconnect the mains voltage and wire the alarm centre accordingly to the application.

ℹ **Wall mounting**

Make sure the wall surface is level. In the case of an uneven wall surface, there is the possibility that the housing will move during installation. This can cause the housing cover to be improperly inserted and closed.
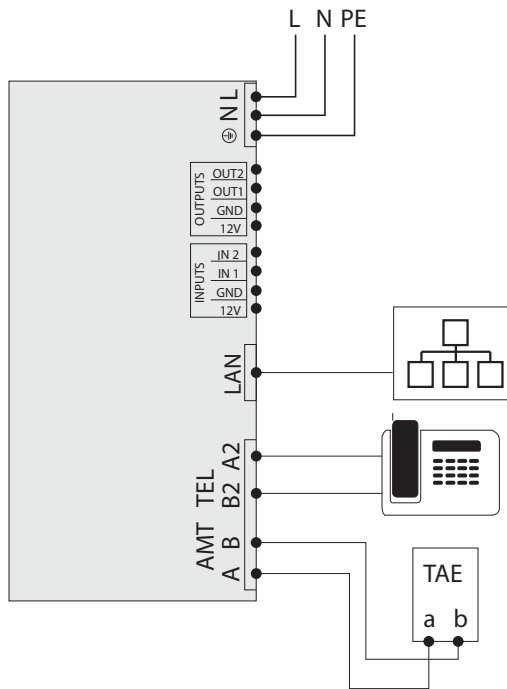
Use power lines with a cable cross-section of 1.5 to 2.5 mm².

AMT   Connection: TAE box
TEL   Connection: telephone
LAN   Connection: Ethernet cable

Connection example for inputs

The following cable type can be connected to the inputs: IY(ST)Y with Ø 0.6 to 0.8 mm, max. length 100 m.

INPUTS   Input plug terminals
12V   DC 12 V, max. 1 A
GND   Ground is wired as a signal
IN1, IN2   Contact (NC/NO)

A   Example: Fault relay heating system

Connection example for outputs

OUTPUTS   Output plug terminals
12V   DC 12 V, max. 200 mA
GND   Ground
OUT1, OUT2   Open-Drain
                     Max. switching current: DC 12 V/200 mA
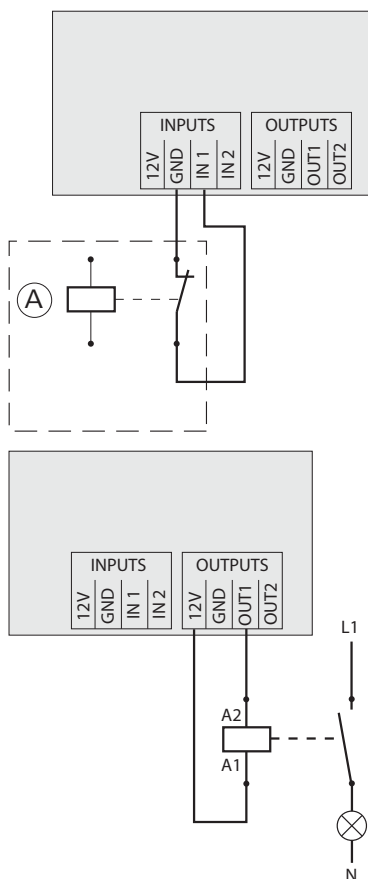
1. Connect the Ethernet cable to the LAN port.
2. Connect the battery pack and switch on the mains voltage. Wait for the initialisation phase.
3. Configure the project in the GPA and transfer it to the alarm centre memory (also see the enclosed Quick Start Guide).
4. Close the hinged cover on the battery compartment and tighten the two screws.
Leave the housing cover off and stay in configuration mode.

4. Configuring KNX functions

4.1. Configuring KNX devices
The alarm control unit Connect is a product of the KNX system and complies with the KNX guidelines. Detailed specialist knowledge is required. The alarm control unit Connect is a security system for an existing or newly installed KNX system.

Initial start-up is performed via ETS 5 or higher.

ⓘ   Notes

• You can find the KNX product database and the technical documentation on the internet at www.download.gira.de.

KNX/IP uses Multicast to mirror KNX bus group communication on IP. To couple the alarm control unit Connect with a twisted pair bus (TP bus), always use a KNX IP router.

ⓘ   Tip
       Faster configuration via direct IP connection

• In ETS 5, select Options under the Bus tile and check whether Use direct IP connection if available is activated. This will make transmission of the KNX configuration from the ETS to the alarm control unit Connect faster.

4.2. Application example

4.2.1. KNX connection

The Gira Alarm Connect security system with Gira G1 alarm client and smartphone app to act as additional operating and display devices. Connected to KNX via KNX IP router.

Gira Alarm Connect
security system

Router

Gira G1

KNX IP-Router

Access via
Gira App

Gira G1

TP

AC 230 V

868 MHz

LAN / WLAN

KNX®
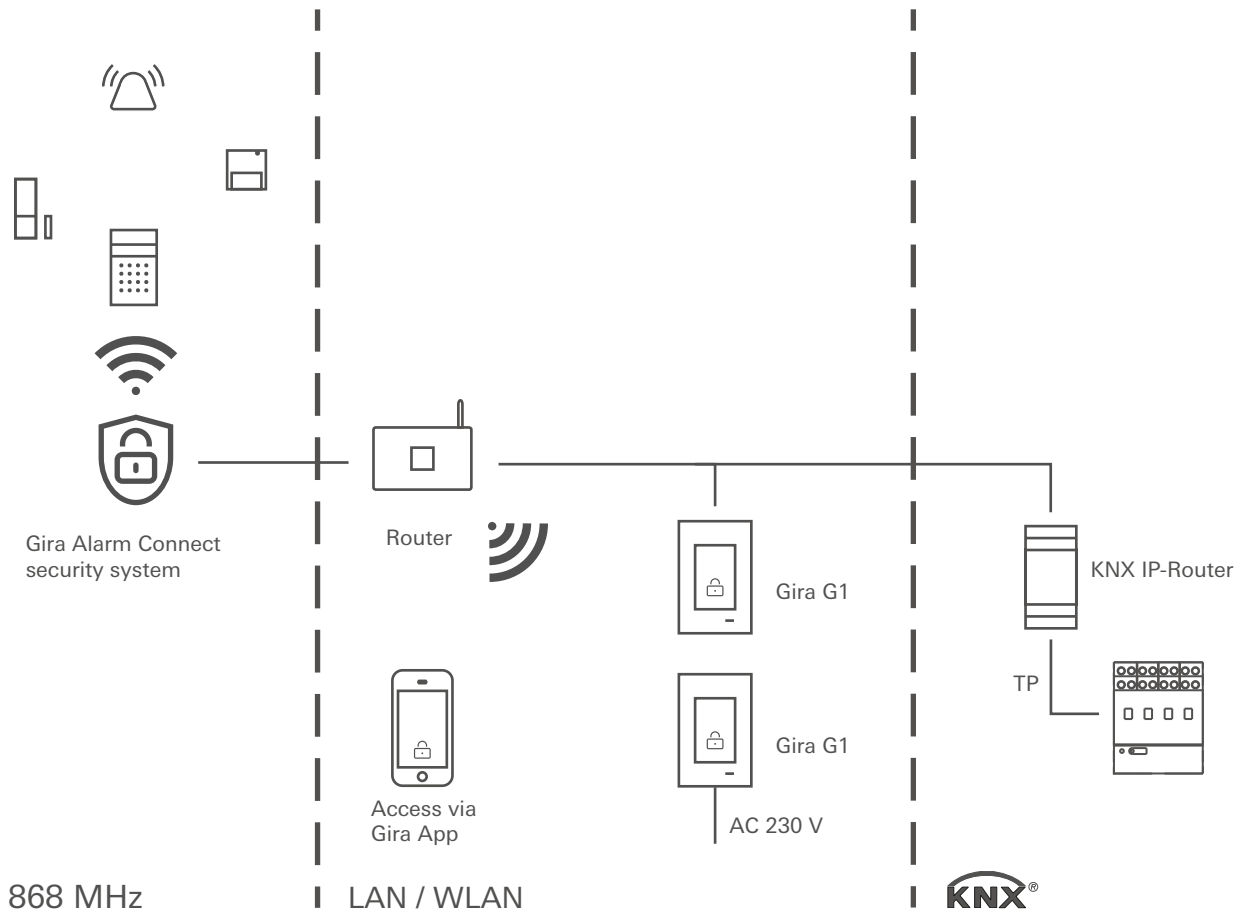
4.2.2. Secure remote access with the Gira S1

The Gira S1 is installed in the customer's home network and prepares the home network for secure access via the Internet. It connects to the Gira device portal automatically using the existing Internet access. Communication between the Gira S1 and the Gira device portal is encrypted using AES and secured with digital certificates (for details, see Gira S1 operating instructions).

Smartphone and app then use encrypted, direct access to the alarm control unit Connect through the Gira device portal.

| Gira Alarm Connect security system | Router | Gira S1 | Gira device portal | Secure remote access via Gira App |

Access via Gira App

At home | Internet | On the way
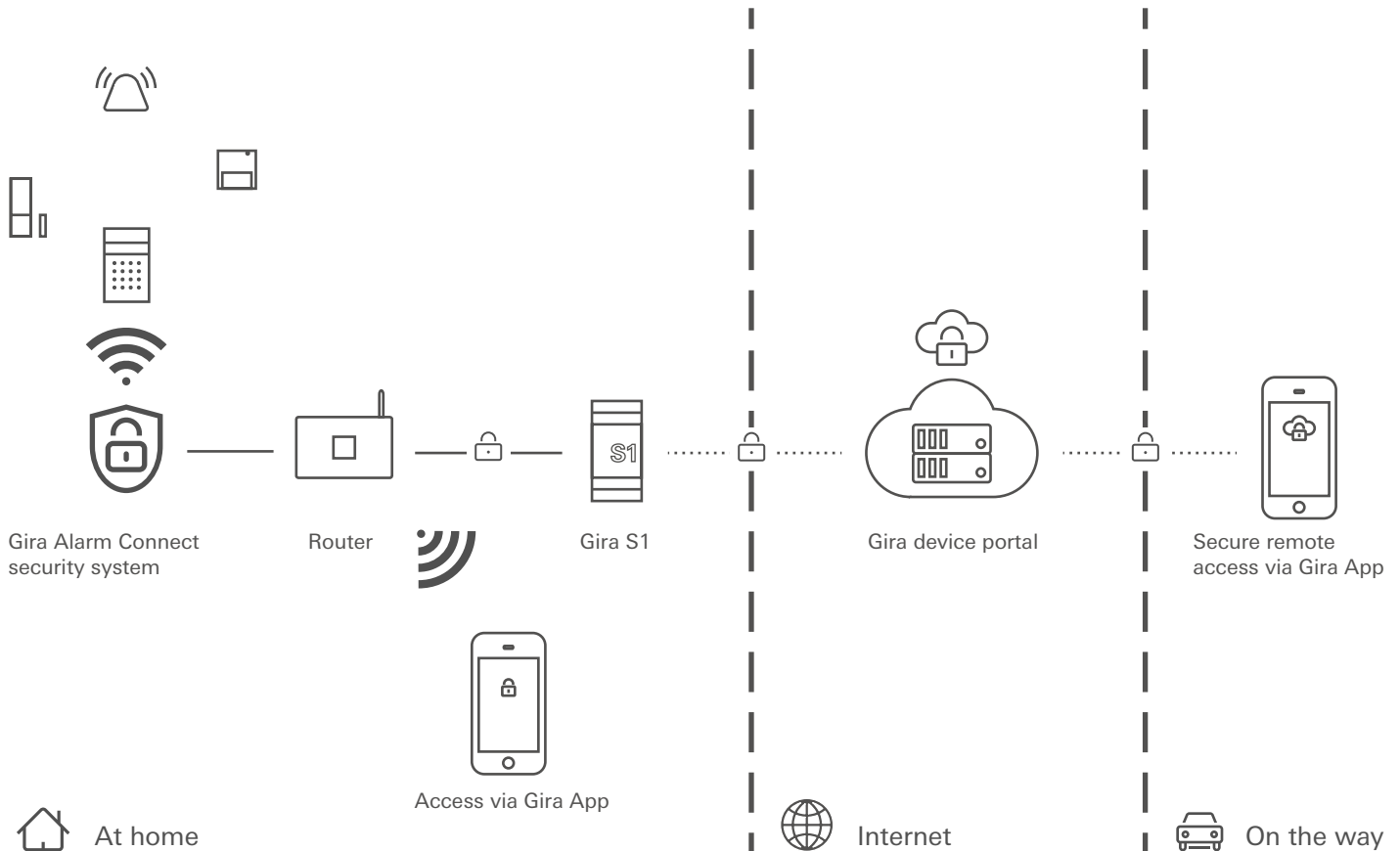
4.3. KNX functions

Depending on the installation, the following KNX functions can be performed using the alarm control unit Connect:

• Query alarm control unit status

• Burglar alarm, panic alarm, fire alarm, tamper alarm, device monitor, technical alarm

• Query arming status

• Door chime

4.4. Topology

The alarm control unit Connect is integrated into either the main line or area line of the KNX system via a KNX IP router. For this, the alarm control unit Connect can either be integrated into the main line or area line.

4.4.1. Alarm control unit Connect in main line

The following topology illustrates how the alarm control unit Connect is operated in the main line together with the Gira G1. in this case the KNX IP router is used as a line coupler.
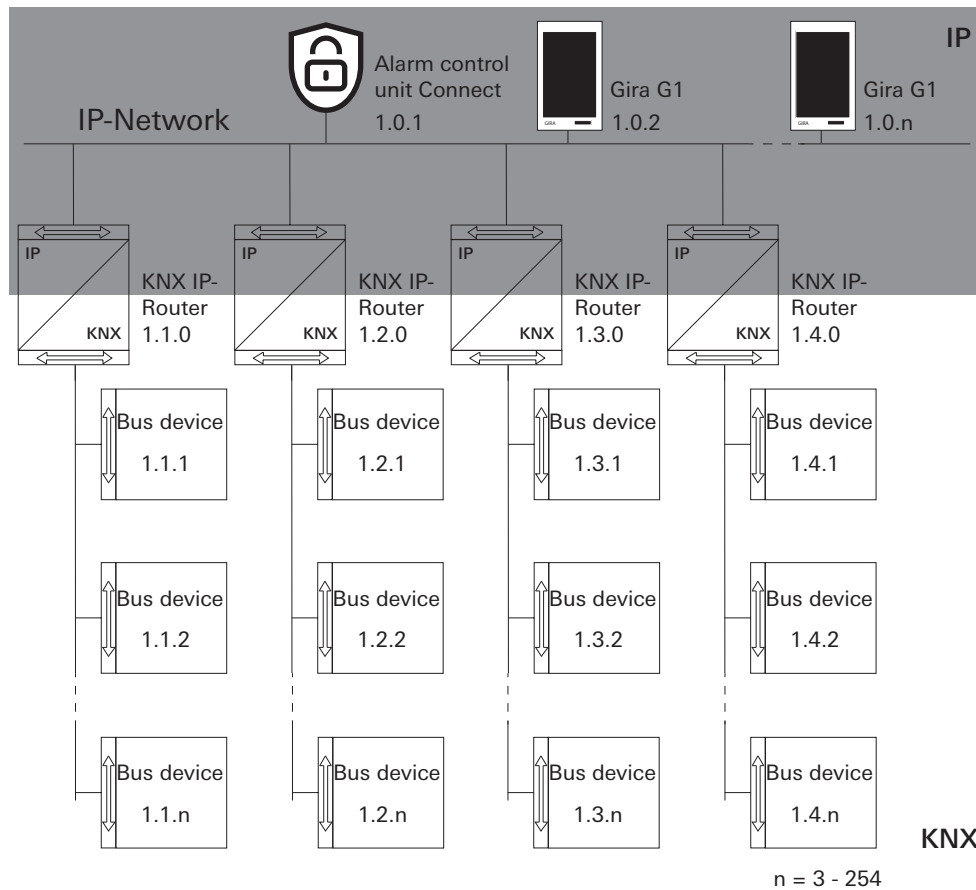
Topology example: Alarm control unit Connect in main line

When installing the alarm control unit Connect in the main line, the configuration in ETS 5 would be as follows:
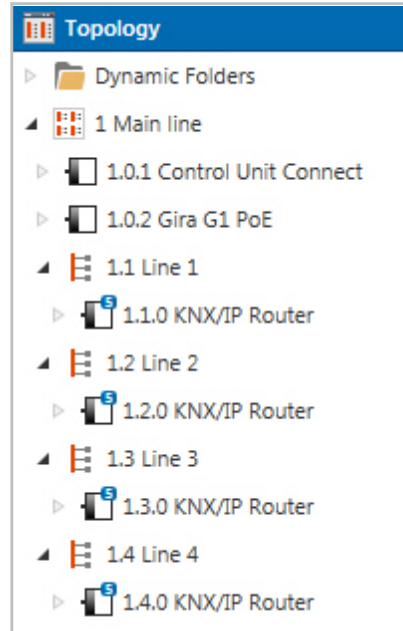
ETS 5 screenshot: Alarm control unit Connect in main line

4.4.2. Alarm control unit Connect in area line

The following topology illustrates how the alarm control unit Connect is operated in the area line together with the Gira G1. In this case the KNX IP router is used as an area coupler and the area/line coupler is used as a line coupler.
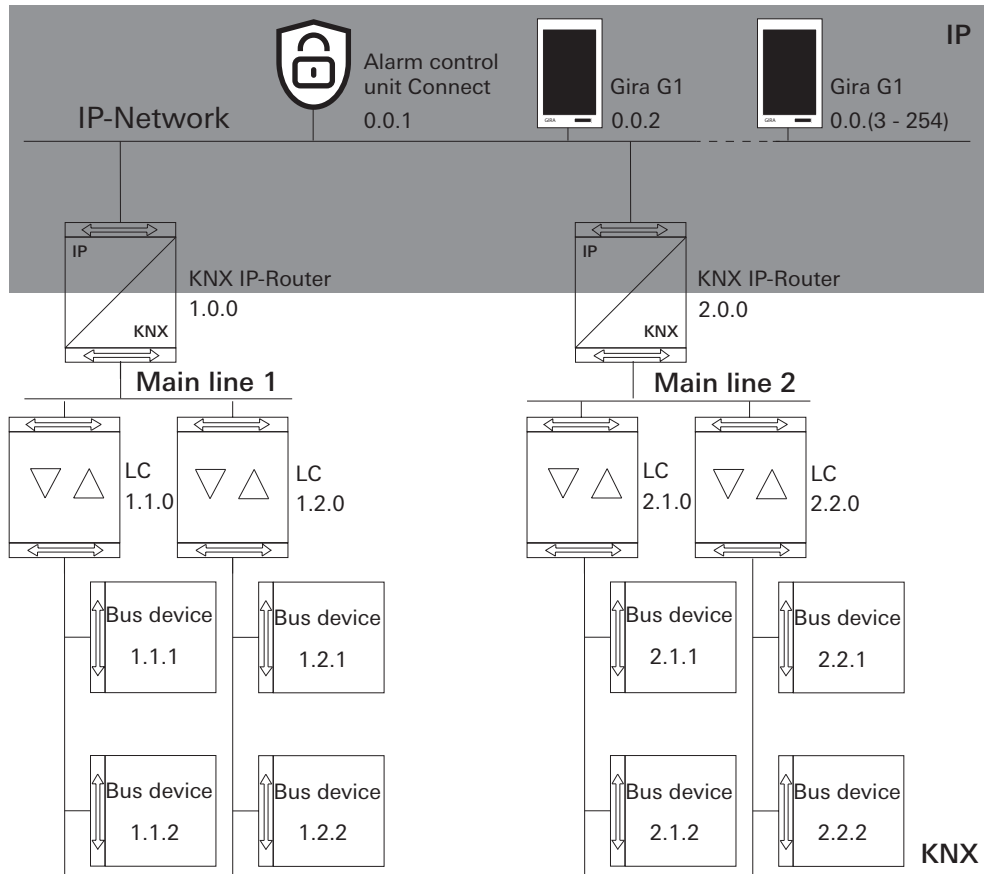
Topology example: Alarm control unit Connect in area line

When installing the alarm control unit Connect in the area line, the configuration in ETS 5 would be as follows:
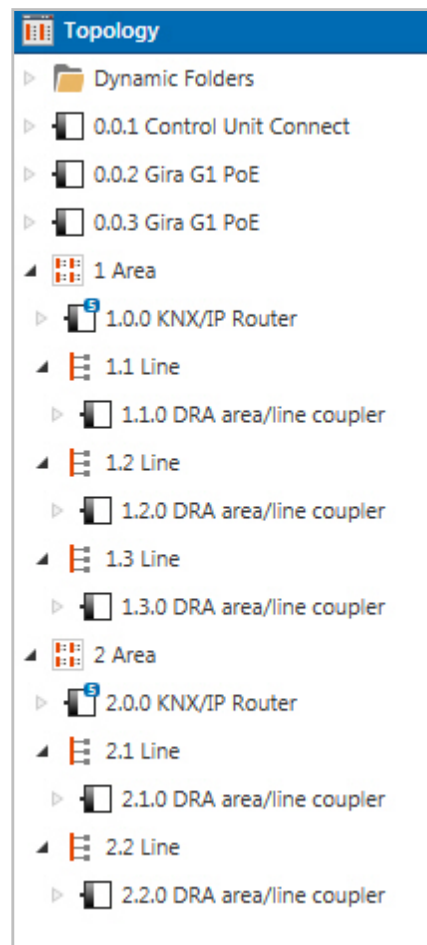
Topology example: Alarm control unit Connect in area line

5. Start-up

ETS search paths: Security/alarm control unit/alarm control unit Connect
Configuration: S-mode standard

Available application program
Name: Alarmzentrale Connect F03010
Version: ETS 5 or higher
From mask version: 57b0

5.1. ETS configuration and start-up

Configuring and starting up the alarm control unit Connect requires ETS 5 or higher and the Gira Project Assistant (version 4 or higher). The required product database is available in *.knxprod format. The corresponding application program has version number 1.0.

5.2. GPA configuration type

In the GPA project configuration, select security system for the Gira Alarm Connect security system and
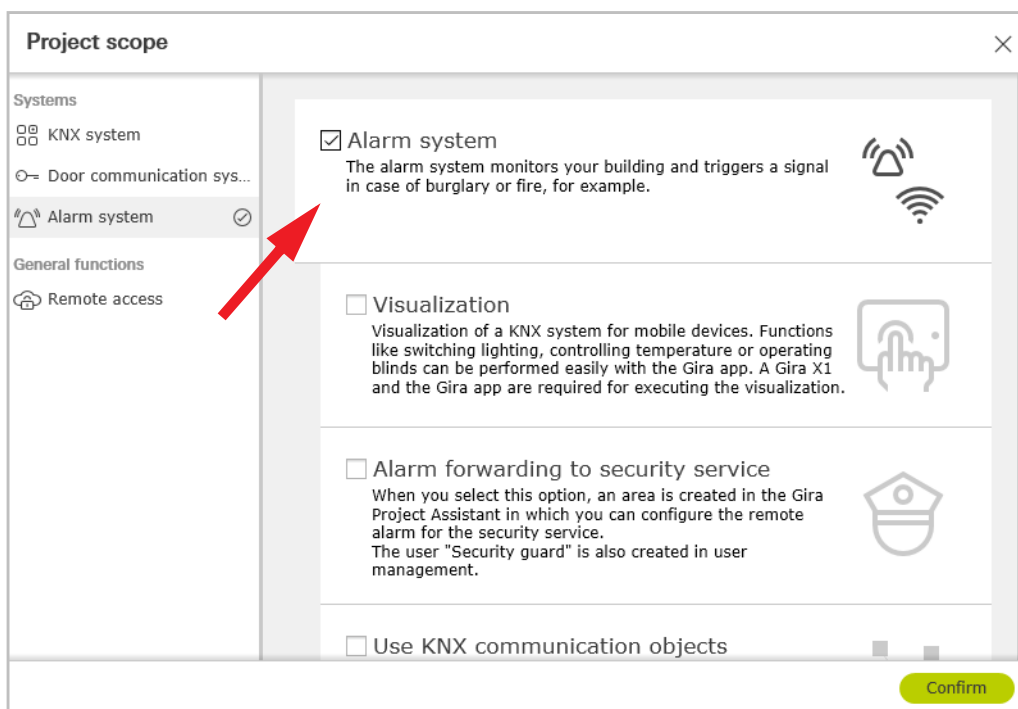
Use KNX communication objects if you wish to use the alarm control unit Connect's KNX communication objects in the ETS.
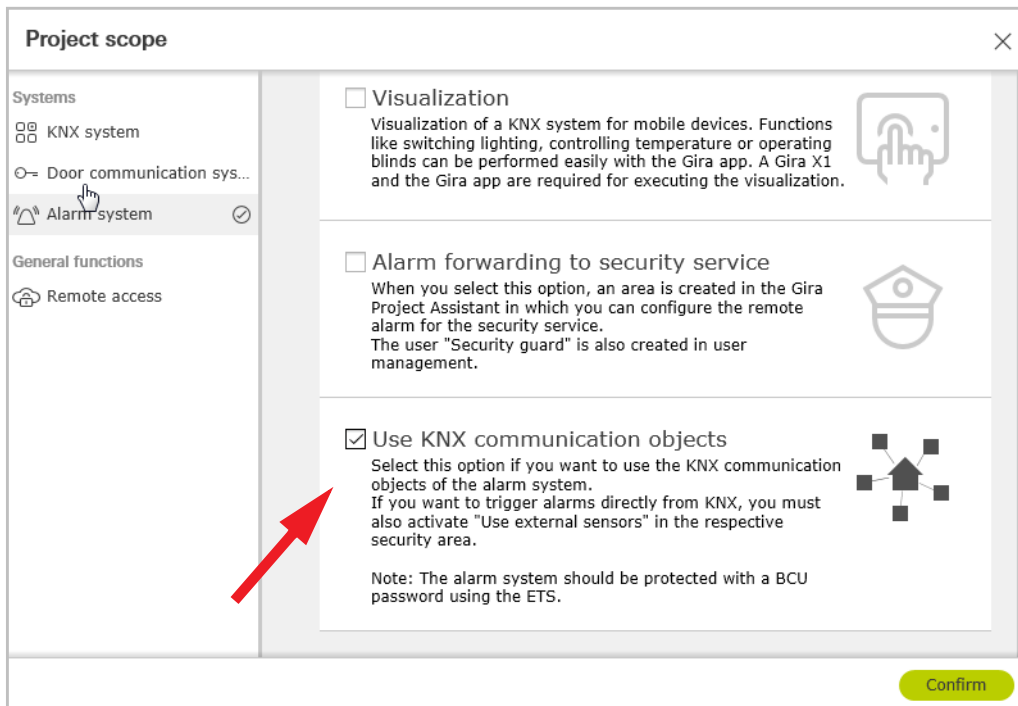
5.2.1. External detectors

External detectors are detectors that trigger an alarm via, for example, a KNX communication object or a data point.

If you activate this option, you will also need to activate the alarms that you want the external detectors in this security area to trigger. The KNX communication objects can only trigger an event in the ETS application if the corresponding alarms have been activated in the GPA.
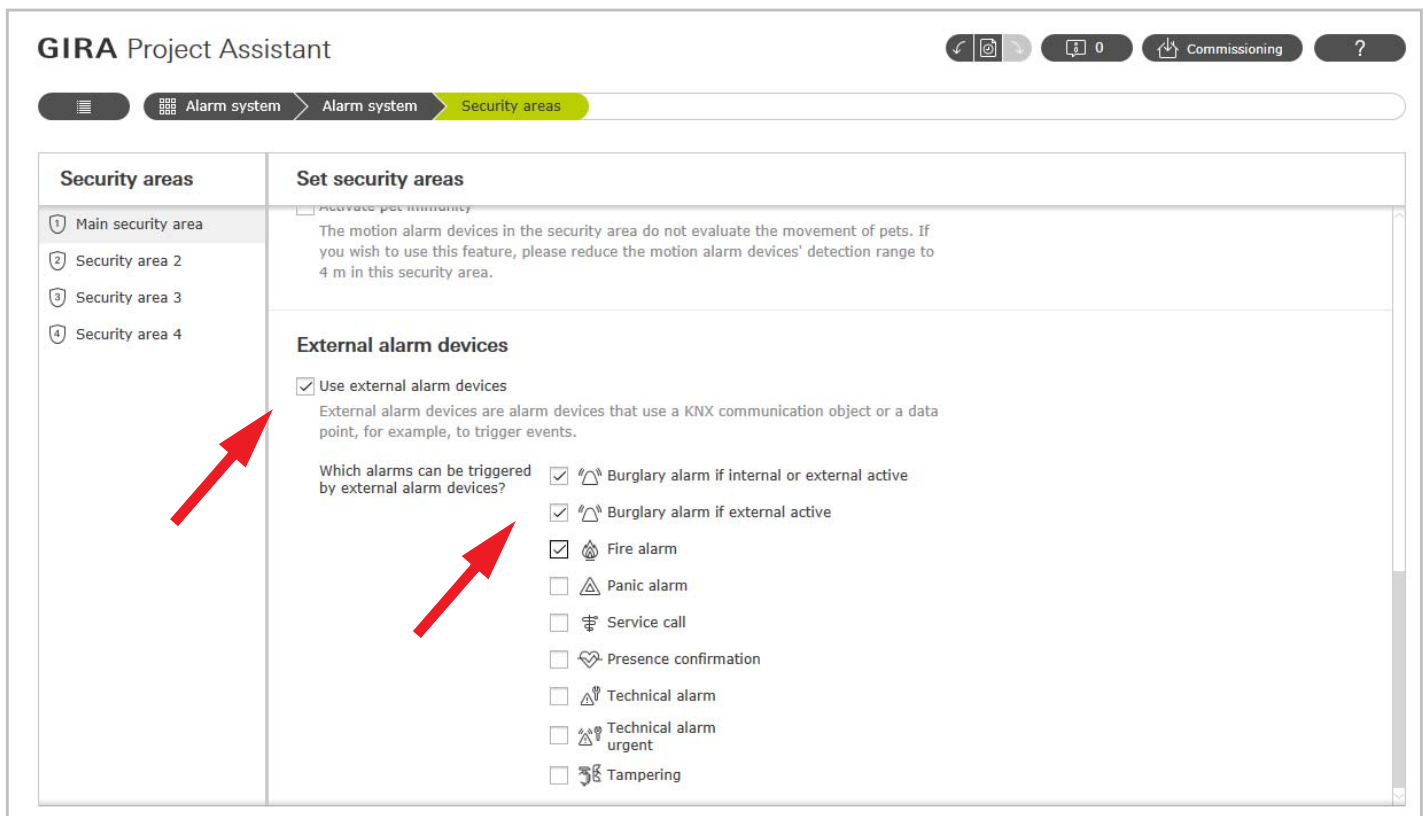
If you wish to use this function in the KNX system, you also need to activate Use KNX communication objects in the project configuration.
If you wish to trigger an alarm via, the GPA data points, select the desired alarms here.

⌀ **Notes**

- ETS always shows the alarm control unit's communication objects. However, they can (for security reasons) only be used if the Use KNX communication objects option has been deliberately activated in the project configuration.

- The alarms' data points are always shown in the data point view but only perform a function if the corresponding alarm has been set here, too.

5.3. Programming the physical address and application software

The alarm control unit Connect has been connected and is ready for operation. The bus is powered. Programming is done in the programming environment of the ETS 5. Connection to the device will be through IP.

ⓘ   **Notes**

- You can only program the physical address and application software when the housing cover is open.
  Important: When you open the housing cover, a tamper alarm triggers.
- Use the Gira Project Assistant (version 4 or higher) to start programming mode. The alarm control unit Connect does not have a programming button or programming LED.

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1. Start the GPA and select the project.
2. Double-click the data points tile.
   The data points view opens.
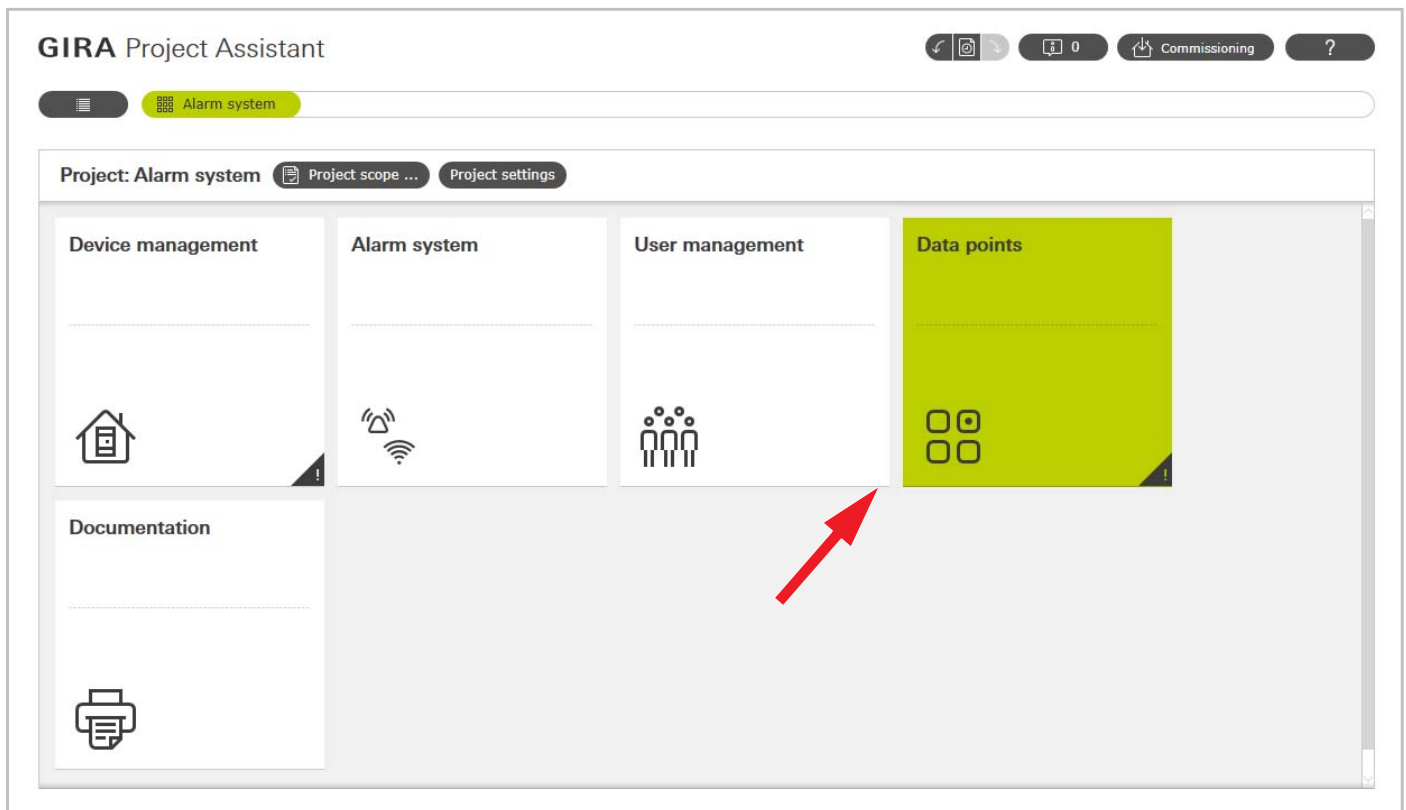
3. Start monitoring.
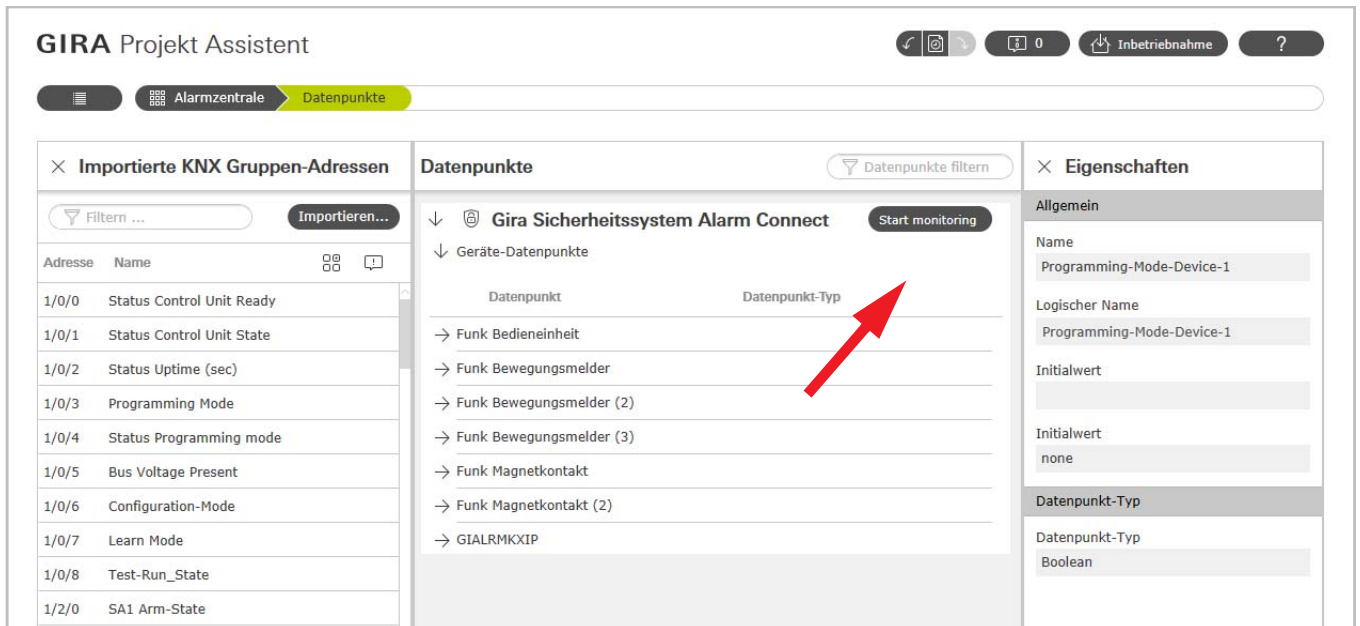
4. Select the GIALRMKXIP device data point.
5. Open KNX programming mode.
6. Enter value 1 and hit enter to confirm.
   Programming mode activates.
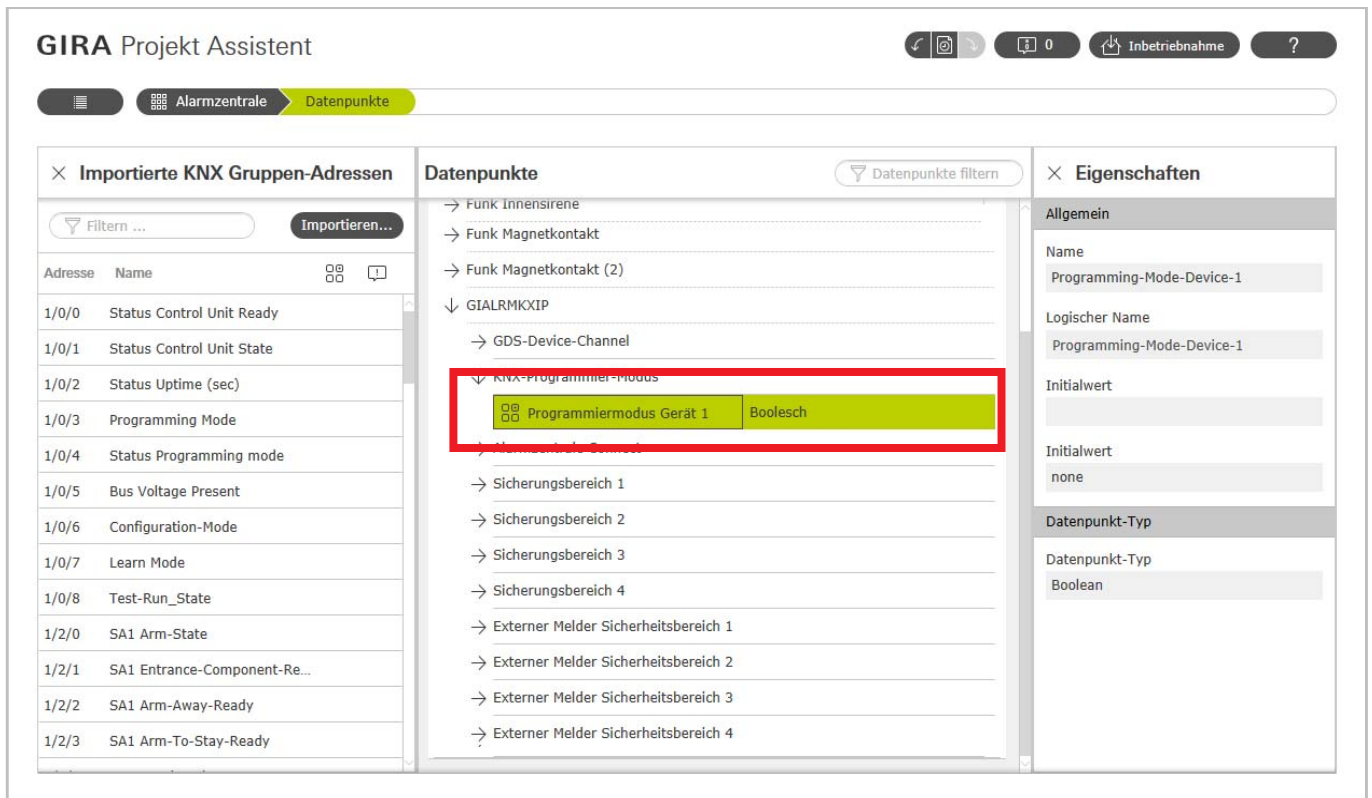
7. Program the physical address using the ETS.
8. Note the physical address on the alarm control unit Connect's hinged cover.

6. Software

6.1. IP address configuration
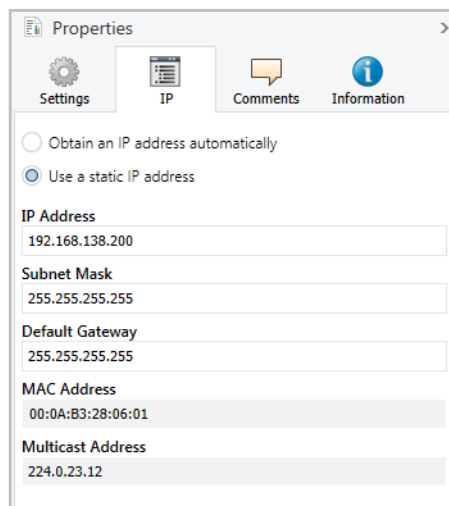
The IP address is usually issued via DHCP. The device is supplied with DHCP activated. Should the alarm control unit not receive an address using this method, an auto IP (address range from 169.254.1.0 to 169.254.254.255) is issued after a certain waiting time.

You can also issue a static IP address via the ETS or the Gira Project Assistant. You can set IP address, IP subnet mask and IP standard gateway here.

○
ⓘ   Notes

- The IP address configuration will only be adopted if the alarm control unit Connect is disarmed and the housing cover is open!
  Important: When you open the housing cover, a tamper alarm triggers.

- Recommendation: Change the IP address in the GPA.

IP address configuration in ETS 5

6.2. Object table

Communication objects: 114
Addresses (max.):   32767
Assignments (max.):   32767
Dynamic
table management: No

The alarm control unit Connect offers the following group objects for integrating group addresses:

Object	Name	Function	Type	DP type	Flags
1	Alarm control unit	Ready	1 bit	1.011 status	C, R, T

Object which returns the state of the device. If the value of the object is "1", the device is ready for operation. "0" means that the device is not yet ready for operation.

Object	Name	Function	Type	DP type	Flags
2	Alarm control unit	Status	1 byte	5.010 meter pulses (0..255)	C, R, T

Object for transmitting the current device state.

00h	Ready	The alarm control unit Connect is ready for operation.
01h	Booting	The alarm control unit Connect is booting.
02h	Shutting down	The alarm control unit Connect will reboot.
03h	Configuring	The alarm control unit Connect is currently being configured.
04h...FFh	Reserved	

Object	Name	Function	Type	DP type	Flags
6	Alarm control unit	Date	3 bytes	11.001 date	C, W

The alarm control unit Connect is time client. Object for receiving the current date.

Object	Name	Function	Type	DP type	Flags
7	Alarm control unit	Time	3 bytes	10.001 time of day	C, W

The alarm control unit Connect is time client. Object for receiving the current time.

Object	Name	Function	Type	DP type	Flags
8	Alarm control unit	Runtime (s)	4 bytes	13.100 time difference (s)	C, R

Object for transmitting the operating time in seconds. Time since last restart.

Object	Name	Function	Type	DP type	Flags
50	Alarm control unit	Programming mode	1 bit	1.001 switching	C, W

Show KNX alarm communication objects: Active. Object for receiving the programming mode. "1" means that programming mode is activated, and "0" means that programming mode is deactivated.

Object	Name	Function	Type	DP type	Flags
▣↹ 51	Alarm control unit	Programming mode status	1 bit	1.011 status	C, R, T

Show KNX alarm communication objects: Active. Object for transmitting the programming mode. "1" means programming mode is activated, and "0" means that programming mode is deactivated.

Object	Name	Function	Type	DP type	Flags
▣↹ 1001	Alarm control unit	Configuration mode	1 bit	1.011 status	C, R, T

Object for reading configuration mode. "1" means configuration mode is activated, and "0" means that configuration mode is deactivated.

Object	Name	Function	Type	DP type	Flags
▣↹ 1002	Alarm control unit	Learning mode	1 bit	1.011 status	C, R, T

Object for transmitting learning mode. "1" means learning mode is activated, and "0" means that learning mode is deactivated.

Object	Name	Function	Type	DP type	Flags
▣↹ 1025	Alarm control unit	Test mode	1 bit	1.011 status	C, R, T

Object for transmitting test mode. "1" means test mode is activated, and "0" means that test mode is deactivated.

Object	Name	Function	Type	DP type	Flags
▣↹ 1101, 1201, 1301, 1401	Main security area, security area 2, security area 3, security area 4	Status	1 bytes	5.010 meter pulses (0..255)	C, R, T

Object for transmitting the current arming state.

00h	Disarmed	The security area is unprotected.
01h	Internally armed	The security area's perimeter is secured.
02h	Externally armed	The security area is secured throughout.
03h	Arming externally	Full security is being established.
05h	Entry delay	System disarming.

Object	Name	Function	Type	DP type	Flags
▣↹ 1102, 1202, 1302, 1402	Main security area, security area 2, security area 3, security area 4	Vestibule devices arming ready	1 bit	1.002 Boolean	C, R, T

Objects for reading whether the entry components are ready. "1" means ready, "0" means not ready.

Object	Name	Function	Type	DP type	Flags
▣⇄ 1103, 1203, 1303, 1403	Main security area, security area 2, security area 3, security area 4	Externally armed ready	1 bit	1.002 Boolean	C, R, T

Object for reading whether external arming is available. "1" means available, "0" means not available.

Object	Name	Function	Type	DP type	Flags
▣⇄ 1104, 1204, 1304, 1404	Main security area, security area 2, security area 3, security area 4	Internally armed ready	1 bit	1.002 Boolean	C, R, T

Object for reading whether internal arming is available. "1" means available, "0" means not available.

Object	Name	Function	Type	DP type	Flags
▣⇄ 1121, 1221, 1321, 1421	Main security area, security area 2, security area 3, security area 4	Burglar alarm internally and externally armed	1 bit	1.001 switching	C, W

Object for writing burglar alarm. "1" sends an alarm, "0" resets the alarm (the system can be secured again).

Object	Name	Function	Type	DP type	Flags
▣⇄ 1122, 1222, 1322, 1422	Main security area, security area 2, security area 3, security area 4	Burglar alarm externally armed	1 bit	1.001 switching	C, W

Object for writing burglar alarm (only acts if externally armed). "1" sends an alarm, "0" resets the alarm (the system can be secured again).

Object	Name	Function	Type	DP type	Flags
▣⇄ 1123, 1223, 1323, 1423	Main security area, security area 2, security area 3, security area 4	Burglar alarm status	1 bit	1.011 status	C, R, T

Object for reading whether a burglar alarm has been triggered. "1" means yes, "0" means no.

Object	Name	Function	Type	DP type	Flags
▣⇄ 1124, 1224, 1324, 1424	Main security area, security area 2, security area 3, security area 4	Burglar alarm externally armed status	1 bit	1.011 status	C, R, T

Object for reading whether a burglar alarm (externally armed) has been triggered. "1" means yes, "0" means no.

Object	Name	Function	Type	DP type	Flags
▪⇄ 1125, 1225, 1325, 1425	Main security area, security area 2, security area 3, security area 4	Burglar alarm internally armed status	1 bit	1.011 status	C, R, T

Object for reading whether a burglar alarm (internally armed) has been triggered. "1" means yes, "0" means no.

Object	Name	Function	Type	DP type	Flags
▪⇄ 1130, 1230, 1330, 1430	Main security area, security area 2, security area 3, security area 4	Panic alarm	1 bit	1.017 trigger	C, W

Object for writing panic alarm. "1" sends an alarm, "0" resets the alarm (the system can be secured again).

Object	Name	Function	Type	DP type	Flags
▪⇄ 1131, 1231, 1331, 1431	Main security area, security area 2, security area 3, security area 4	Panic alarm status	1 bit	1.011 status	C, R, T

Object for reading whether a panic alarm has been triggered. "1" means yes, "0" means no.

Object	Name	Function	Type	DP type	Flags
▪⇄ 1132, 1232, 1332, 1432	Main security area, security area 2, security area 3, security area 4	Fire alarm	1 bit	1.001 switching	C, W

Object for writing fire alarm. "1" sends a fire alarm, "0" resets the fire alarm (the system can be secured again).

Object	Name	Function	Type	DP type	Flags
▪⇄ 1133, 1233, 1333, 1433	Main security area, security area 2, security area 3, security area 4	Fire alarm sta- tus	1 bit	1.011 status	C, R, T

Object for reading whether a fire alarm has been triggered. "1" means yes, "0" means no.

Object	Name	Function	Type	DP type	Flags
▪⇄ 1134, 1234, 1334, 1434	Main security area, security area 2, security area 3, security area 4	Presence detection	1 bit	1.017 trigger	C, W

Object for writing presence detection. "1" or "0" means presence detected.

GIRA

Object	Name	Function	Type	DP type	Flags
■⇄ 1135, 1235, 1335, 1435	Main security area, security area 2, security area 3, security area 4	Presence detection status	1 bit	1.011 status	C, R, T

Object for reading presence. "1" means alarm triggered (presence not confirmed within the interval), "0" means no alarm.

Object	Name	Function	Type	DP type	Flags
■⇄ 1136, 1236, 1336, 1436	Main security area, security area 2, security area 3, security area 4	Service call	1 bit	1.017 trigger	C, W

Object for writing service call. "1" sends a call, "0" resets the call (the system can be secured again).

Object	Name	Function	Type	DP type	Flags
■⇄ 1137, 1237, 1337, 1437	Main security area, security area 2, security area 3, security area 4	Service call status	1 bit	1.011 status	C, R, T

Object for reading whether a service call has been triggered. "1" means yes, "0" means no.

Object	Name	Function	Type	DP type	Flags
■⇄ 1138, 1238, 1338, 1438	Main security area, security area 2, security area 3, security area 4	Tamper alarm	1 bit	1.001 switching	C, W

Object for writing tamper alarm. "1" sends an alarm, "0" resets the alarm (the system can be secured again).

Object	Name	Function	Type	DP type	Flags
■⇄ 1139, 1239, 1339, 1439	Main security area, security area 2, security area 3, security area 4	Tamper alarm status	1 bit	1.011 status	C, R, T

Object for reading whether a tamper alarm has been triggered. "1" means yes, "0" means no.

Object	Name	Function	Type	DP type	Flags
■⇄ 1140, 1240, 1340, 1440	Main security area, security area 2, security area 3, security area 4	Device monitoring status	1 bit	1.011 status	C, R, T

Object for reading whether or not a monitoring alarm has been triggered (one of the security system's components is not responding). "1" means yes, "0" means no.

Object	Name	Function	Type	DP type	Flags
1141, 1241, 1341, 1441	Main security area, security area 2, security area 3, security area 4	Technical alarm	1 bit	1.001 switching	C, W

Object for writing technical alarm. "1" sends an alarm, "0" resets the alarm.

Object	Name	Function	Type	DP type	Flags
1142, 1242, 1342, 1442	Main security area, security area 2, security area 3, security area 4	Technical alarm status	1 bit	1.011 status	C, R, T

Object for reading whether a technical alarm has been triggered. "1" means yes, "0" means no.

Object	Name	Function	Type	DP type	Flags
1143, 1243, 1343, 1443	Main security area, security area 2, security area 3, security area 4	Urgent technical alarm	1 bit	1.001 switching	C, W

Object for writing urgent technical alarm. "1" sends an alarm, "0" resets the alarm.

Object	Name	Function	Type	DP type	Flags
1144, 1244, 1344, 1444	Main security area, security area 2, security area 3, security area 4	Urgent technical alarm status	1 bit	1.011 status	C, R, T

Object for reading whether an urgent technical alarm has been triggered. "1" means yes, "0" means no.

Object	Name	Function	Type	DP type	Flags
1145, 1245, 1345, 1445	Main security area, security area 2, security area 3, security area 4	Fault	1 bit	1.011 status	C, R, T

Object for reading whether there is a fault. "1" means yes, "0" means no.

Object	Name	Function	Type	DP type	Flags
1181, 1281, 1381, 1481	Main security area, security area 2, security area 3, security area 4	Door chime	1 bit	1.016 confirmation	C, T

Sends "1" when the door chime is actuated. "0" no action.

7. Parameters

The default value for each parameter is marked in **bold**.

7.1. General

Parameters	Entry / Selection	Remarks
Time mode	**None** Alarm control unit Connect is time client	In mode "alarm control unit Connect is time client", you can set time and date via the bus. Note that, in this case, NTP is deactivated. Only one time server may be assigned to the alarm control unit.
Display KNX statuses	Checkbox **(active)**	This option enables the communication objects for programming mode and bus voltage.
Main security area Security area 2 Security area 3 Security area 4	Checkbox **(inactive)**	Activating this parameter makes the respective pages for the corresponding security area and the communication objects accessible.

7.2. Main security area, security area 2, security area 3, security area 4

Parameters	Entry / Selection	Remarks
Show KNX alarm communication objects	Checkbox **(inactive)**	The communication objects for triggering an alarm are available.

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