ABB i-bus® KNX
Security Solutions with KNX
Security Terminal Product Information
Compact Security Solutions for the ABB i-bus® KNX – the New Security Terminals from ABB

The compact solution for security applications – the new Security Terminals.

The compact solution for security applications – the new Security Terminals. The new Security Terminal provides a compact security solution for KNX applications for detection and signaling of intrusion, personal attack and technical hazards. They are used as the interface between the security technology sensors and KNX.

Depending on the configuration, the devices feature 2, 4 or 8 inputs – so-called detector circuits or zones. They are used for monitoring connected passive detectors (e.g. magnetic contacts, glass break sensors, etc.) to the ABB i-bus® KNX as well as for connection of floating contacts in applications with enhanced security requirements.

Through the connection of security technology and KNX, the detectors employed can, in addition to the security functions, also be used for heating control (e.g. central switch off of the lighting when the alarm logic is set).

The Security Terminals can be used as autonomous systems with the newly integrated alarm logic, in conjunction with the Security Module SCM/S or with an Intrusion Alarm Panel L240 with KNX Interface XS/S.

The new application program offers several functions for security applications, such as
- Direct and delayed setting
- Internal setting with occupancy and external setting when absent
- Setting of the connected detector types
- Reset input and setting input
- Detector monitoring
- Zones (detector circuits) can be switched off
- Different types of alarms
- Setting for freely programmable relay outputs, e.g. for direct control of signalling devices

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**Application**

Compact security solution for KNX applications for detection and signalling of intrusion, personal attack and technical dangers
Monitored connection of security technology sensors
Direct control of signalling devices

**Benefits**

Simultaneous usage of the security technology for supporting building management
Individual operation and display options for the security functions via KNX
Event-driven scene control

**Product**

Security Terminal, 8-fold, MDRC, MT/S 8.12.2M
Security Terminal, 4-fold, MDRC, MT/S 4.12.2M
Security Terminal, 2-fold, FM, MT/U 2.12.2

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2CDC 513 045 D0201
Project example for protection of a detached house

KNX

SENSORS

Inputs
- Motion Detector IR/KB
- Magnetic Reed Contact MRS/W
- Lock Bolt Switching Contact WRK/W
- Glass Break Sensor SPGS/W
- Panic Detector NDU/W
- Water Detector SWM4
- Setting Device WELT
- Strobe SSF/GB
- Siren

Topology example with Security Terminal MT/S 8.12.2M
### Peripheral monitoring

<table>
<thead>
<tr>
<th>What is monitored</th>
<th>What is the monitored event</th>
<th>What is used for monitoring</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doors and windows</td>
<td>Opening</td>
<td>Magnetic contacts</td>
<td>Drill hole or flush mounting in or on the window frames</td>
</tr>
<tr>
<td>Glass break</td>
<td>Glass break sensor</td>
<td></td>
<td>Mounted on the glass surface</td>
</tr>
</tbody>
</table>

**Additional benefits via KNX with an unset system:**

- ![Sun](image) **Switch off of air-conditioning when a window is open**
- ![Lock](image) **Closing of a heating valve when a window is open**

### Interior monitoring

<table>
<thead>
<tr>
<th>What is monitored</th>
<th>What is the monitored event</th>
<th>What is used for monitoring</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rooms and halls</td>
<td>Detection of motion</td>
<td>Motion detectors</td>
<td>Observe sources of interference! Heating and air-conditioning (temperature differences)</td>
</tr>
</tbody>
</table>

**Additional benefits via KNX with an unset system:**

- ![Light](image) **Switch on of illumination when a motion is detected**

### Lock monitoring

<table>
<thead>
<tr>
<th>What is monitored</th>
<th>What is the monitored event</th>
<th>What is used for monitoring</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doors</td>
<td>Locking of the door</td>
<td>Lock bolt switching contact</td>
<td>Installation in the door strike plate</td>
</tr>
<tr>
<td>Windows</td>
<td>Closing of the window</td>
<td>Blocking bolt</td>
<td>Installation in the window surround</td>
</tr>
</tbody>
</table>

### Technical monitoring

<table>
<thead>
<tr>
<th>What is monitored</th>
<th>What is used for monitoring</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water leak</td>
<td>Water detector</td>
<td></td>
</tr>
<tr>
<td>Gas leak</td>
<td>Gas detector</td>
<td>Only in conjunction with an uninterruptible power supply</td>
</tr>
<tr>
<td>Occurrence of smoke</td>
<td>Smoke detector</td>
<td>Only in conjunction with an uninterruptible power supply</td>
</tr>
</tbody>
</table>

**Additional benefits via KNX with a technical alarm:**

- ![Unlock](image) **Switch off of the power circuits**
### Setting device

<table>
<thead>
<tr>
<th>What is performed</th>
<th>How is setting/unsetting implemented</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activation/deactivation of the peripheral and interior monitoring</td>
<td>SafeKey Wall Reader (by chip key insertion or code entry)</td>
<td>Direct setting</td>
</tr>
<tr>
<td></td>
<td>Controlpanel (via code input)</td>
<td>Delayed setting</td>
</tr>
</tbody>
</table>

Additional benefits via KNX with system setting:

- **Switch off of the power circuits**
- **Lowering of blinds**
- **Switch off of illumination**
- **Reduction in cooling power (stand-by operation)**
- **Reduction in heating power (stand-by operation)**

### KNX operation and display device

<table>
<thead>
<tr>
<th>What is performed</th>
<th>What is used for display</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation and displays</td>
<td>Controlpanel</td>
<td></td>
</tr>
</tbody>
</table>

### Alarming

<table>
<thead>
<tr>
<th>Type of alarming</th>
<th>What is used for alarming</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal alarming with occupancy</td>
<td>Internal siren, Controlpanel</td>
<td></td>
</tr>
<tr>
<td>External alarming with absence</td>
<td>External siren with/without strobe light</td>
<td>Height at least 3 m</td>
</tr>
<tr>
<td>Remote alarming (silent alarm)</td>
<td>Telephone Gateway TG/S</td>
<td>A/B cable</td>
</tr>
<tr>
<td>Panic alarm</td>
<td>Panic detector</td>
<td></td>
</tr>
</tbody>
</table>

Additional benefits via KNX on alarm:

- **Switch on of the illumination**
- **Raising of the blinds, opening of shutters**
The new Security Terminal provides a compact solution with 2, 4 or 8 detector inputs. Should a project require more detector circuits (zones), an extended security solution can be implemented by a combination of the Security Terminal and the Security Module SCM/S on the ABB i-bus® KNX.

The Security Module in this case undertakes the detector evaluation, setting as well as alarming functions and controls all the security functions in the building. It can evaluate up to 64 detector circuits. The Security Terminal in this combination operates as a zone terminal, which converts the sensor signals to bus telegrams and provides them to the Security Module for evaluation on the KNX.
The ABB Intrusion Alarm Panel L240 is used in projects where security zones with VdS approval are to be implemented. It can be integrated into the KNX intelligent installation system via the KNX Interface XS/S and thus transfers detailed information concerning the state of the system to the KNX to support building control. On non-VdS approved systems, the KNX interface even facilitates bi-directional communication between the KNX and the Intrusion Alarm Panel L240. Each individual input of the 80 zone inputs on the L240 can thus be optionally allocated to a detector on the L240 or a KNX detector on the KNX bus system.

The detectors on the KNX are then connected using new Security Terminals. Using this system, a project can be optimally implemented, for example, where a retail business occupies the ground floor and a residential area occupies the upper floors. The illumination, heating and air-conditioning or other control functions can be implemented via KNX in both in the retail business as well as the residential areas. Security is provided in the retail business by the Intrusion Alarm Panel L240 with VdS approval, whereas an adequate security solution for the residential area is provided using Security Terminals. The L240 is also according to EN 50131-1.
www.abb.com/knx

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