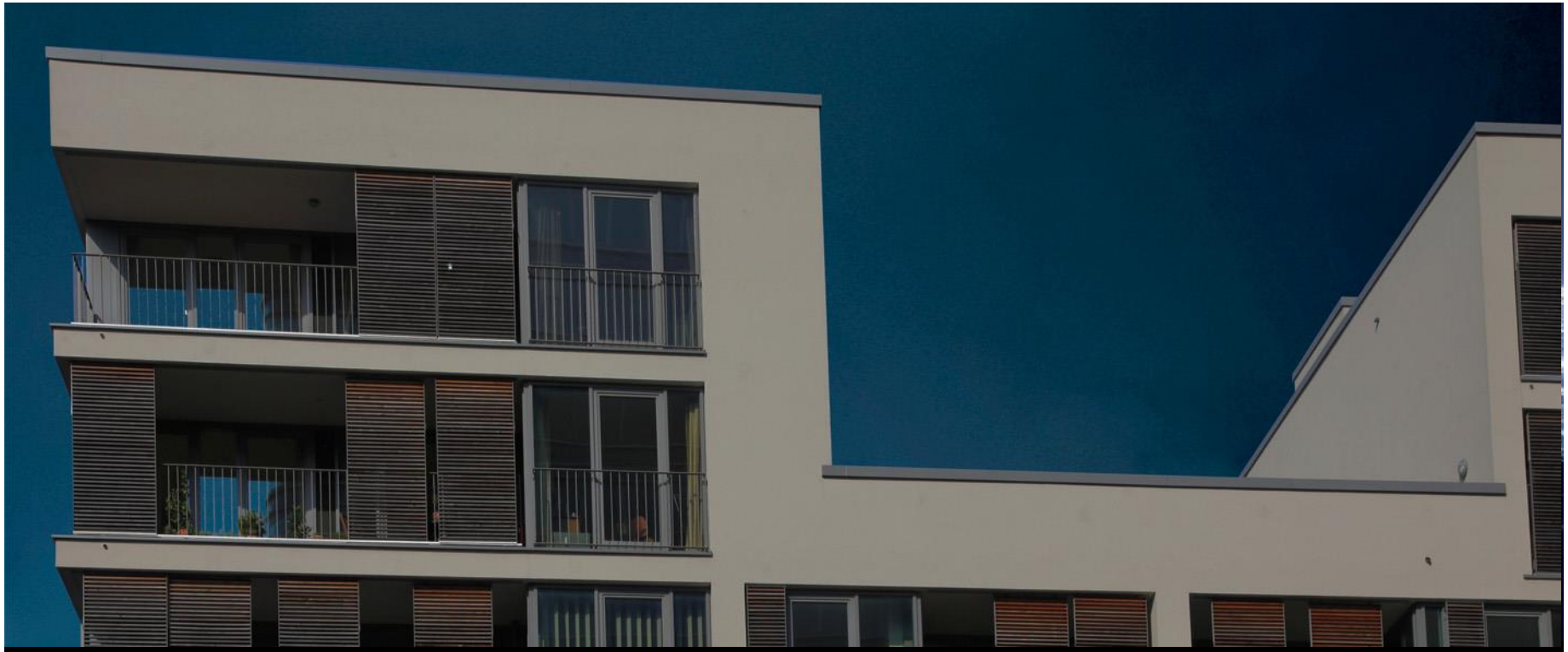


Specification Toolbox 2.0

Intelligent Building Solutions
ABB i-bus® KNX in Residential Buildings

Power and productivity
for a better world™

ABB i-bus® KNX
The technology

www.knx.org

- KNX is the first open standard for home & building control
- Fully compatible and interoperable
- Truly open bus technology
- 380 manufacturers worldwide
- Thousands of products
- Several applications

ABB i-bus® KNX
The standards

- CENELEC
  EN 50090 – the only European Standard for Home and Building Electronic Systems (HBES) based on KNX.
- CEN
  EN 13321-1 – the European Standard for Building Automation based on KNX.
- ISO / IEC
  ISO/IEC 14543-3 – the World`s only Standard for Home Electronic Systems (HES) based on KNX.
- GB/Z
  GB/Z 20965 – Chinese Standard for Home and Building Control based on KNX
- US Standard
  ANSI/ASHRAE 135

KNX: The worldwide standard for home & building control

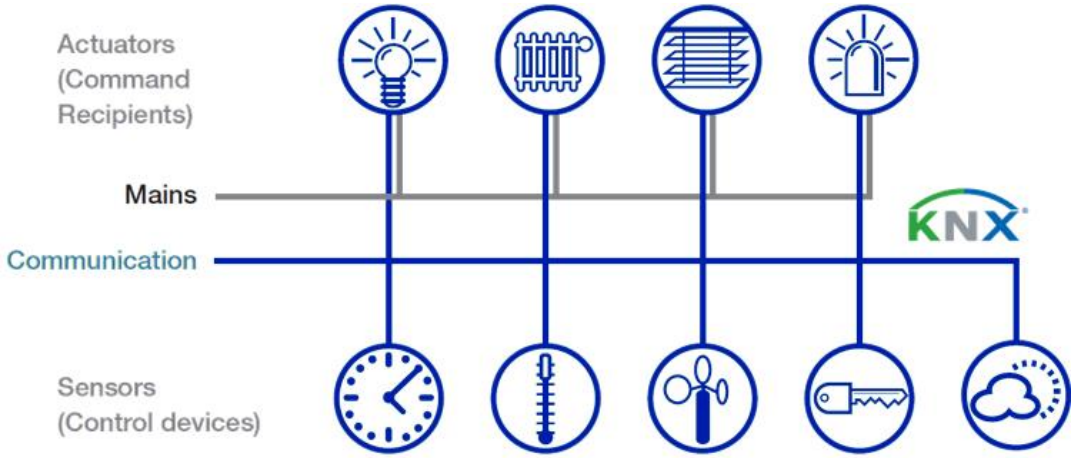
ABB i-bus® KNX
The functions

A broad product range for automation and control functions in today's modern buildings:

- Lighting control and regulation
- Heating, ventilation, cooling
- Blinds and shutter control
- Security and monitoring
- Energy and load management
- Visualization and operation
- Central automatic
- Remote control / maintenance
- Interfacing to other control systems

ABB i-bus® KNX
The system

Graphic:
KNX – one system, one standard, many interconnected functions for maximum flexibility



- A single system instead of separate control solutions; more comfort, more economy, more safety
- Enables the realization of a complete solution according to the wishes the project partners and customers, whether they are buyers, tenants or operators
- Cost advantages throughout the entire lifetime of the building: from planning and implementation, through the building phase, sale or rental, right up to operation and administration

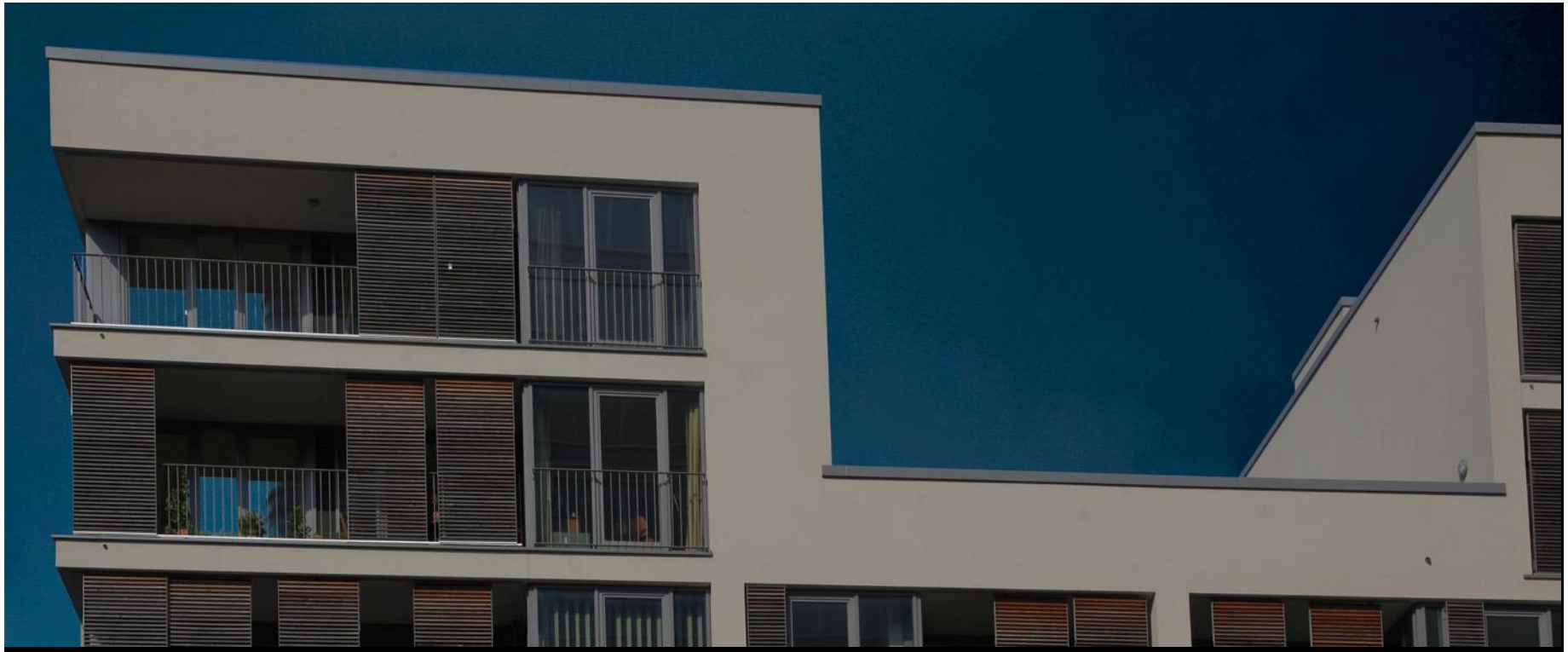


ABB i-bus® KNX in Residential Buildings
Advantages and Applications

ABB i-bus® KNX
Advantages in residential buildings

- Integration of many applications within one system
- Every time extendable and reprogrammable
- Bus cable with two wires instead of numerous control wires
- Central control and displaying of the building / apartment
- State of the art remote access via Wi-Fi or Internet with smartphone or tablet
- Advance of comfort, efficiency and security

Increase the value of your building and buying incentive for your customers

Comfort, Efficiency and Security - Example
Leaving your home

With setting the alarm system and leaving your home…

- Shutters on ground floor go down
- Simulation of presence is activated
- The set point value (room temperature) is increased
- Defined current circuits will be switched off
- Illumination outside and in the garage switches on for a short time
- Motion detectors outside are activated

Comfort, Efficiency and Security - Example
Returning to your home

Opening the garage gate via remote control ...

- Illumination outside switches on
- If the alarm system is set, all shutters go up, in corridor and other selected rooms light will be switched on
- The room temperature will be increased / decreased

Comfort, Efficiency and Security - Example
Information at a glance

In the corridor a display indicates ...

- Which lights are on
- The value of room temperature of the rooms
- The washing machine in the cellar has finished
- All outside doors are closed
- Windows are opened
- And you can operate any functions of the KNX system – convenient also from your Smartphone and Tablet!

ABB i-bus® KNX in Residential Buildings
Basic applications - Lighting

Create atmosphere at demand

- Switching of lighting
- Dimming of lighting
- Scene based control to suit several moods
- Optionally: Advanced RGB lighting e.g. with DALI technology, Presence dependent lighting control

ABB i-bus® KNX in Residential Buildings
Basic applications - Room climate

The perfect room climate at all times

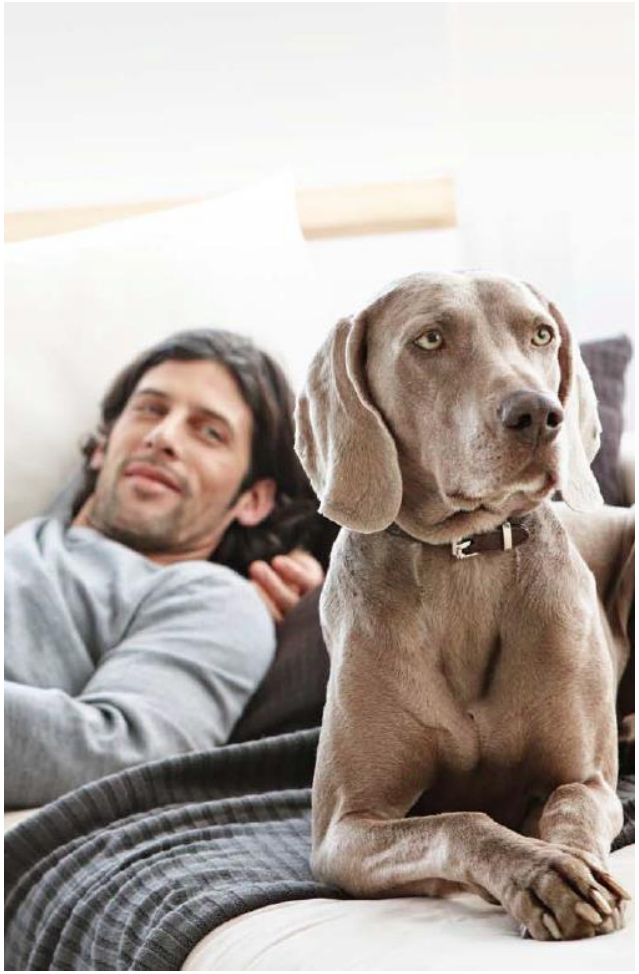
- Room thermostats for easy adjusting of set points for split units
- Interfacing to typical split units possible
- Full integration into scenes for increase of comfort

ABB i-bus® KNX in Residential Buildings
Basic applications - Shading

Manage shading with ease

- Control of shutters, blinds, curtains and windows
- Integration into various scenes possible
- Optionally: Full automation with sun tracking system

ABB i-bus® KNX in Residential Buildings
Basic applications - Security



Security and comfort sensibly networked

- Monitoring of doors and windows
- Gas leakage detector
- Smoke detector
- Alarming facilities
- Optionally: Glass breakage detection, Movement detection

ABB i-bus® KNX in Residential Buildings
Basic applications – User operation

Standard and multifunction control elements

Millenium

Busch-triton®

Busch-priOn®

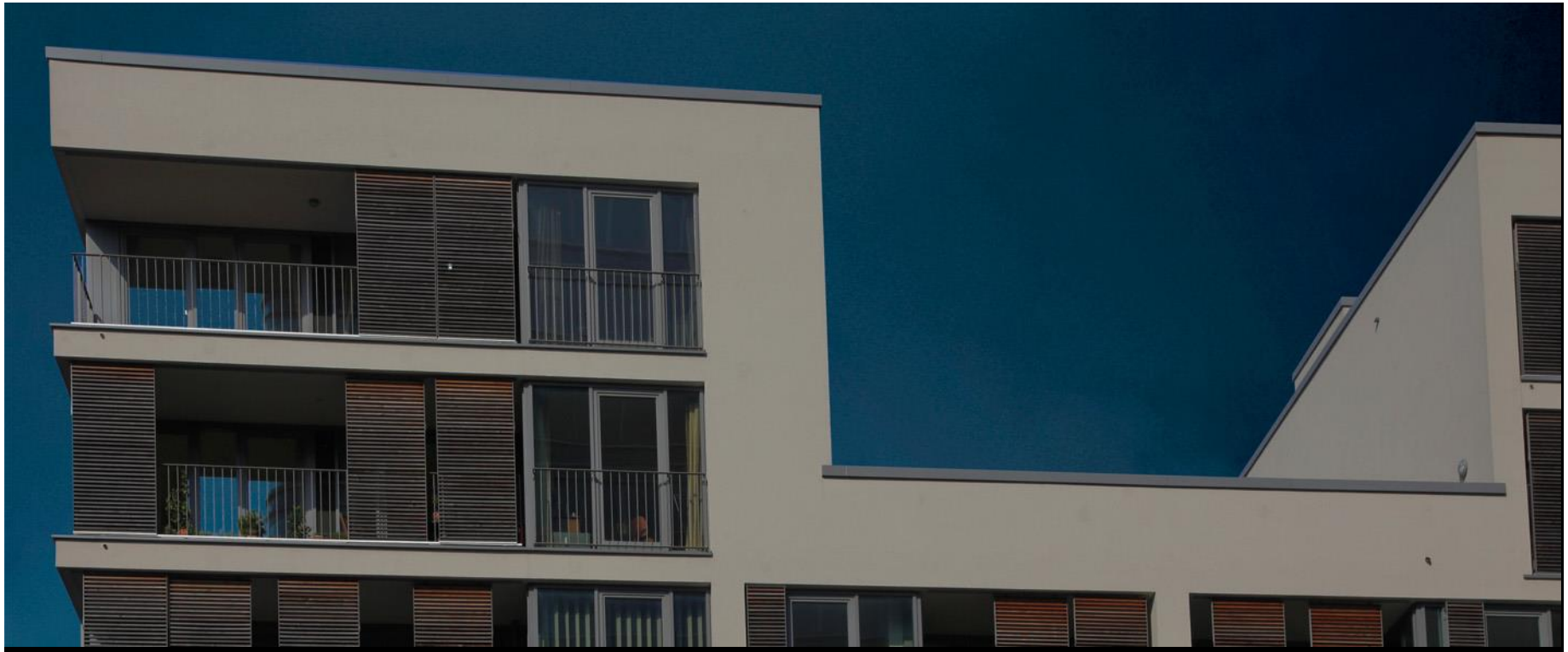


ABB i-bus® KNX in Residential Buildings

Configuration levels

ABB i-bus® KNX in Residential Buildings
Example apartment layout

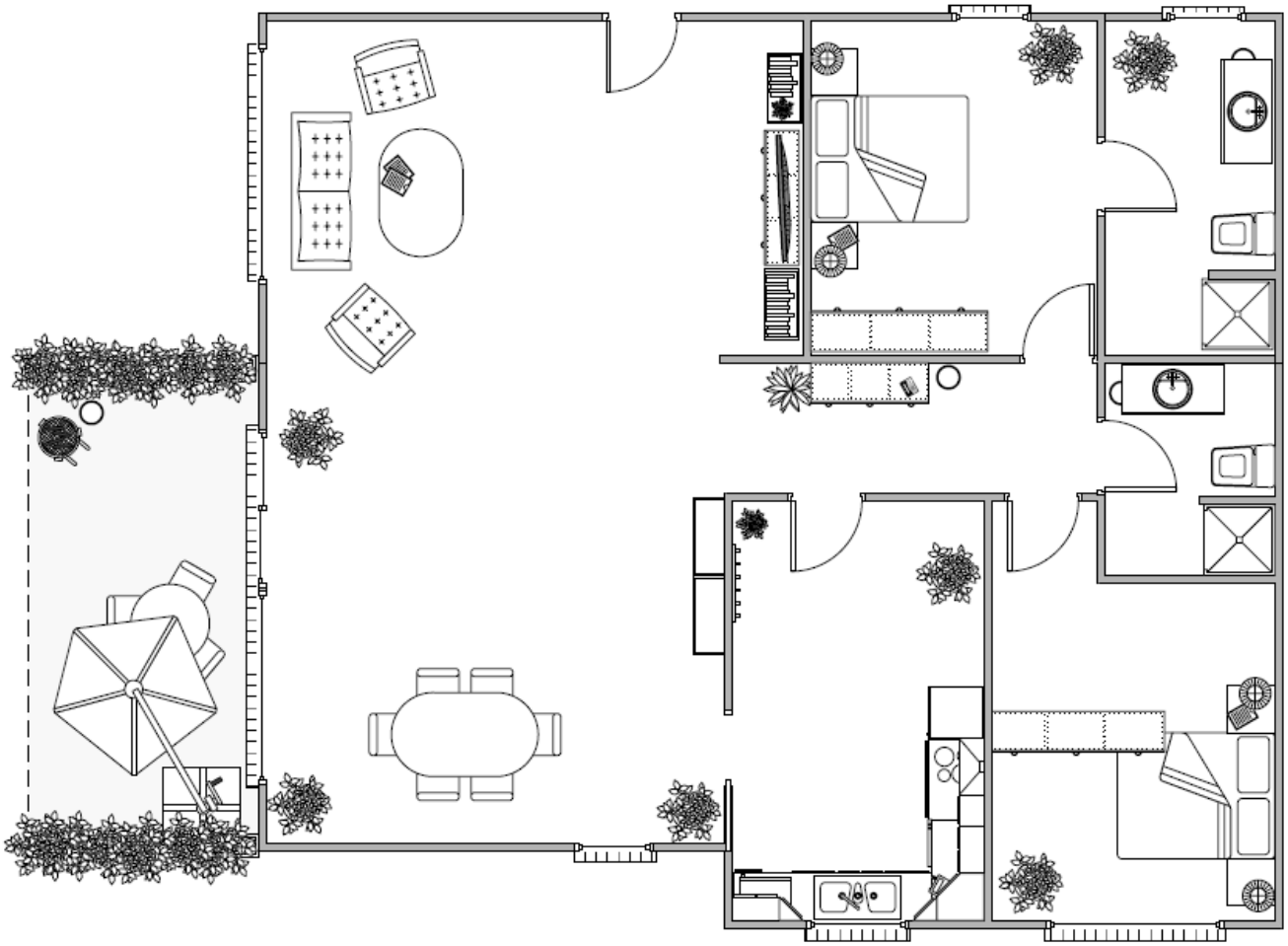


ABB i-bus® KNX in Residential Buildings
Basic configuration

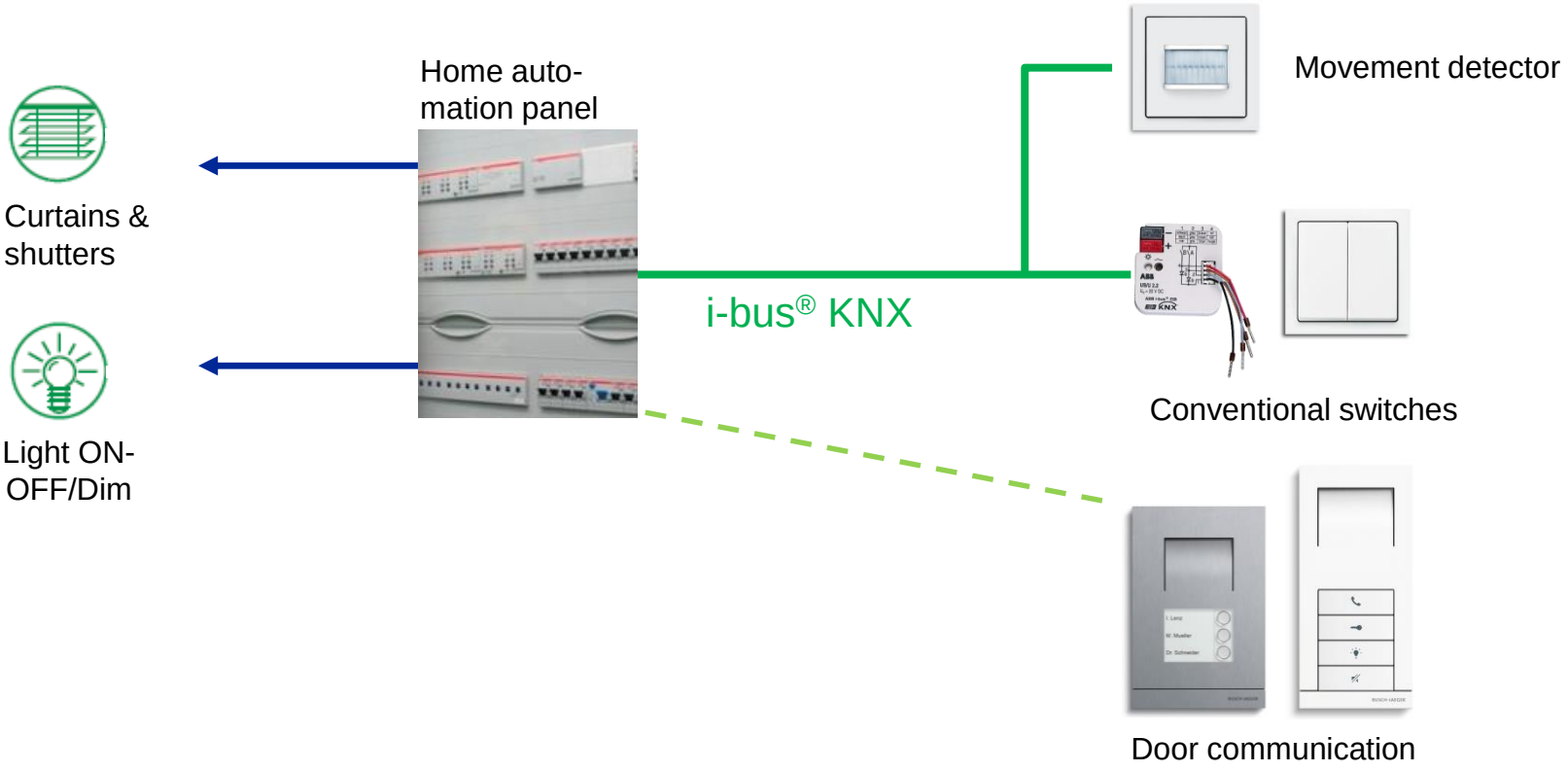


ABB i-bus® KNX in Residential Buildings
Advanced configuration

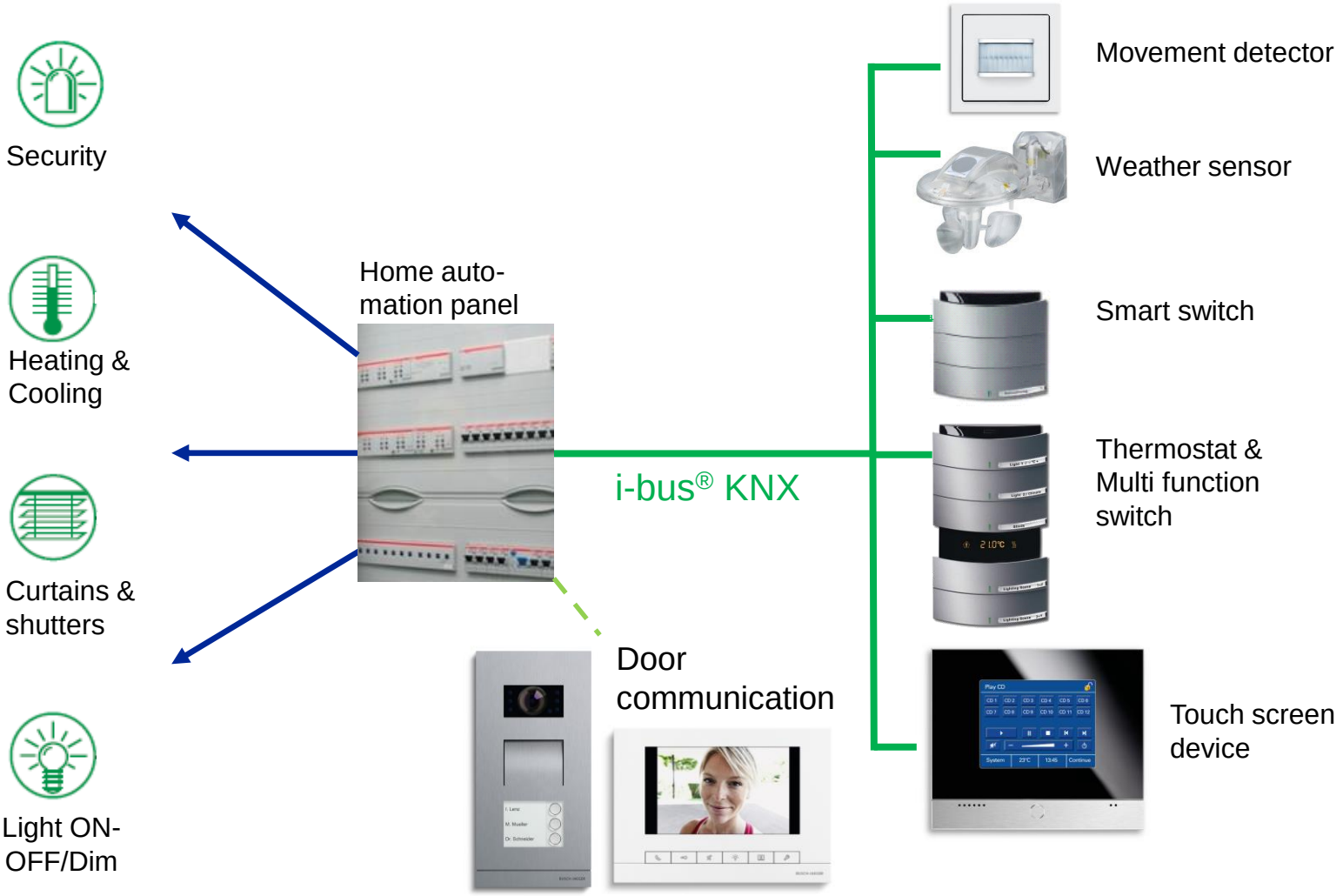


ABB i-bus® KNX in Residential Buildings
Premium configuration

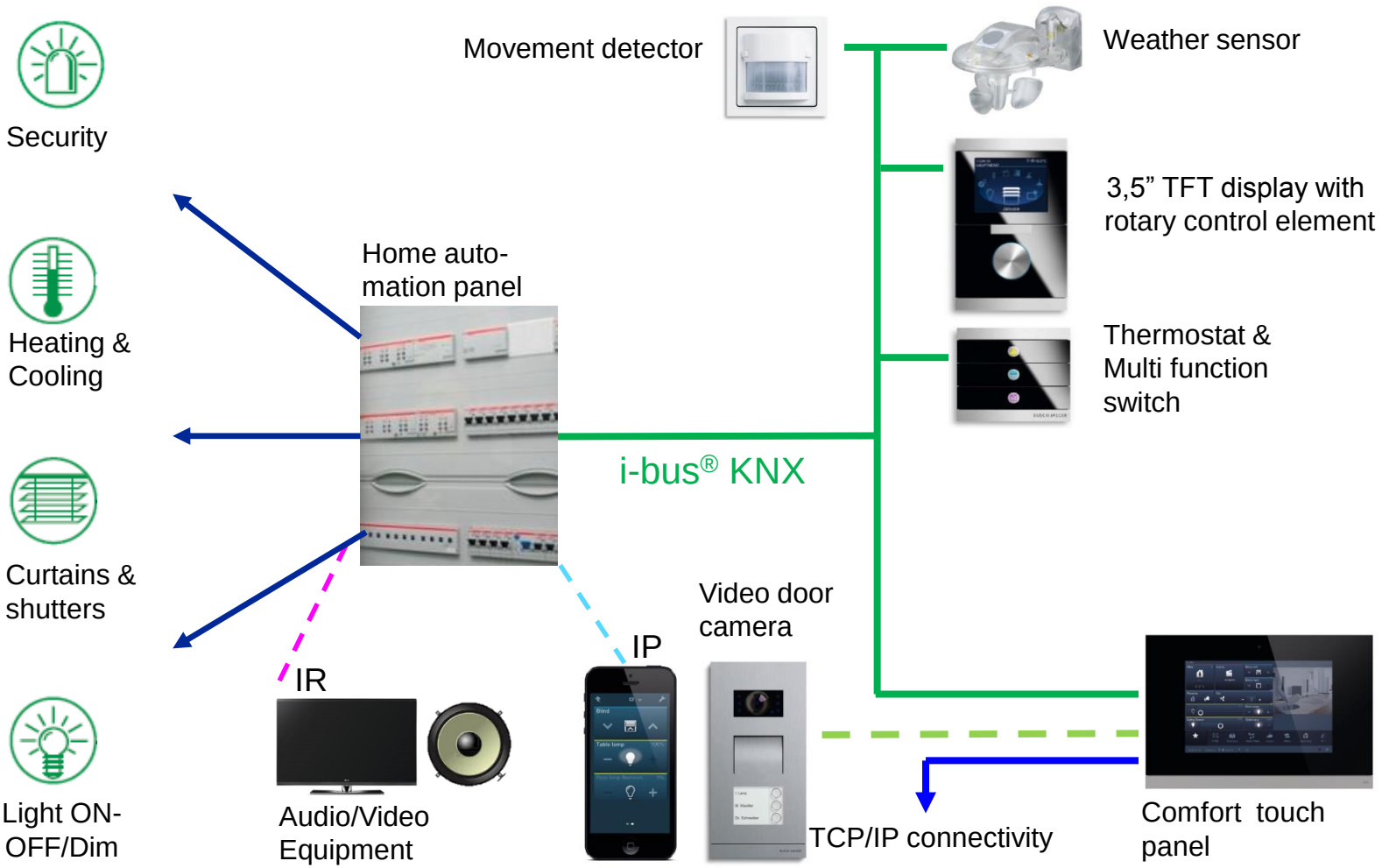
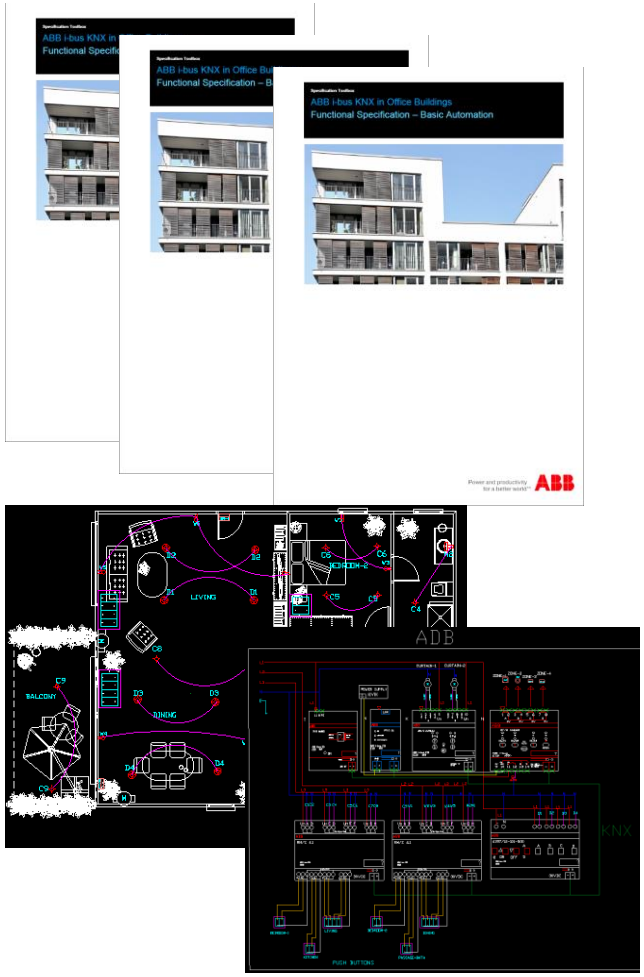


ABB i-bus® KNX in Residential Buildings
Specification toolbox



- The ABB i-bus KNX Specification Toolbox comes with a variety of documents for your support:
  - Functional specification texts available in three different design levels: Basic, Advanced and Premium
  - Device lists including KNX devices to fulfil requirements of basic functional specification in three different configurations as example
  - CAD drawings containing floor plan and wiring of appropriate KNX devices for basic automation level as example

Disclaimer

Note:

The information in this Document contains general information about the applications and technology of KNX and furthermore show example solutions for a specific building segment.

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