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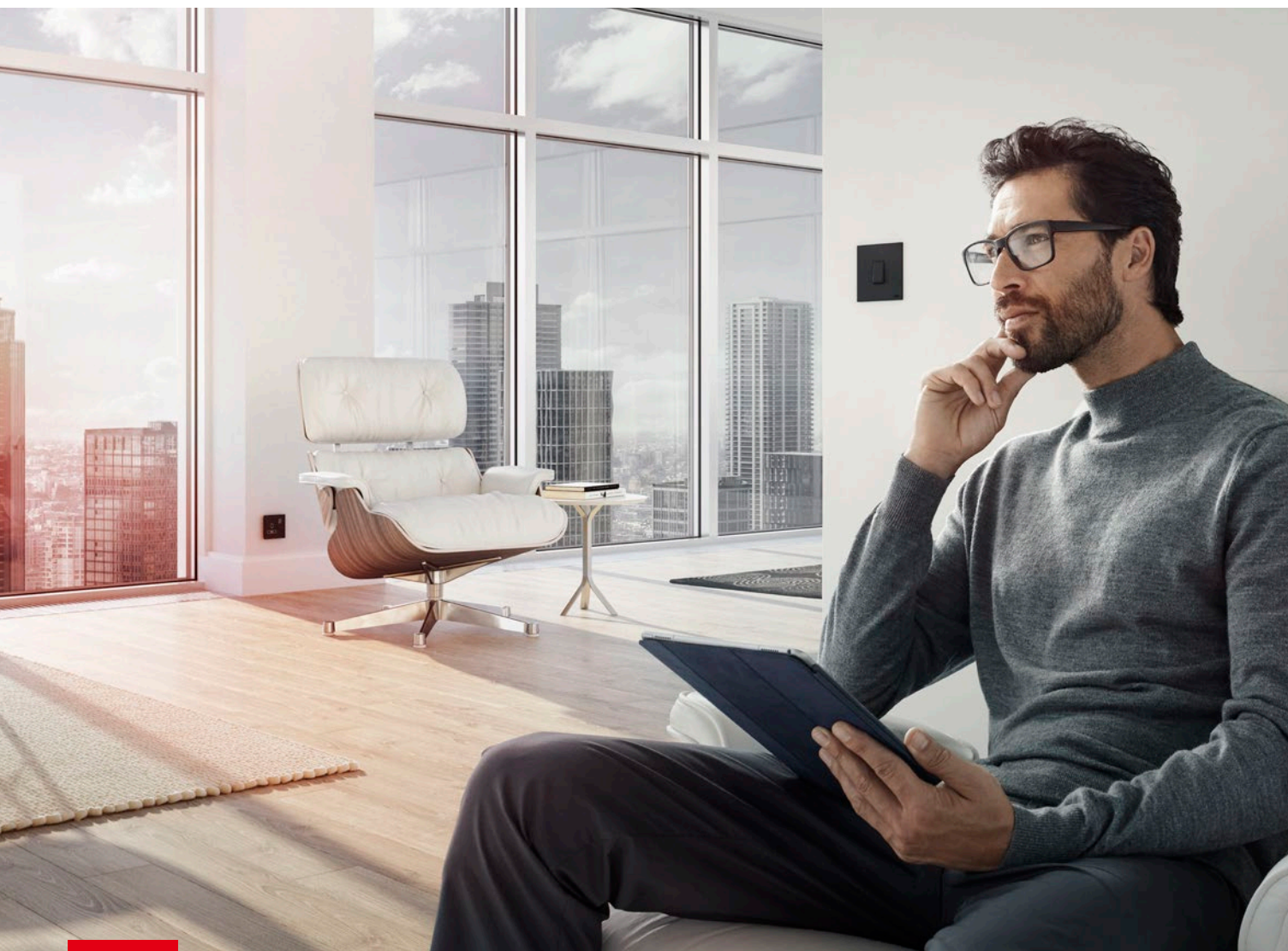
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P A S C A L





SMARTER BUILDING

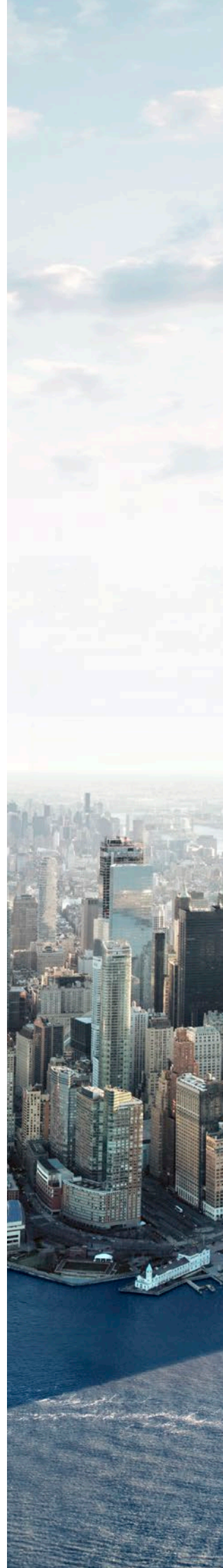
Create smarter

Architecture for today
and tomorrow

The world is getting smarter

The world is constantly changing, and with it so are the needs of the people. Digital, intelligent, and flexible building solutions are in greater demand than ever before and need to be factored into modern building design from the start. ABB is at the forefront of this change and is actively developing a range of smarter systems for homes and buildings with both designer and occupants in mind

new.abb.com/buildings





Integration of flexible supply and demand

Solar and EV markets will experience fast growth over the next 20 years



Digitalization

50 billion networked devices will be in use worldwide by 2022



Urbanization

70% of the world's population will live in cities by 2050

Tomorrow's buildings need to be more than just showpieces for unique ideas and plans. They should work together to create smarter, safer, and more efficient cities, built around intelligent infrastructures – that's what ABB believes anyway. If you agree, come and discover our modern, intelligent systems, and see how they place a world of design and functionality directly at your fingertips.

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Solutions for every need

ABB Eco System

The great thing about digital solutions is that when done properly, they should all work hand in hand to simplify and improve the lives of those using them.

The demand for digital solutions in modern buildings is greater than ever. ABB brings all functions and solutions seamlessly together under one roof, whatever the size of the building.



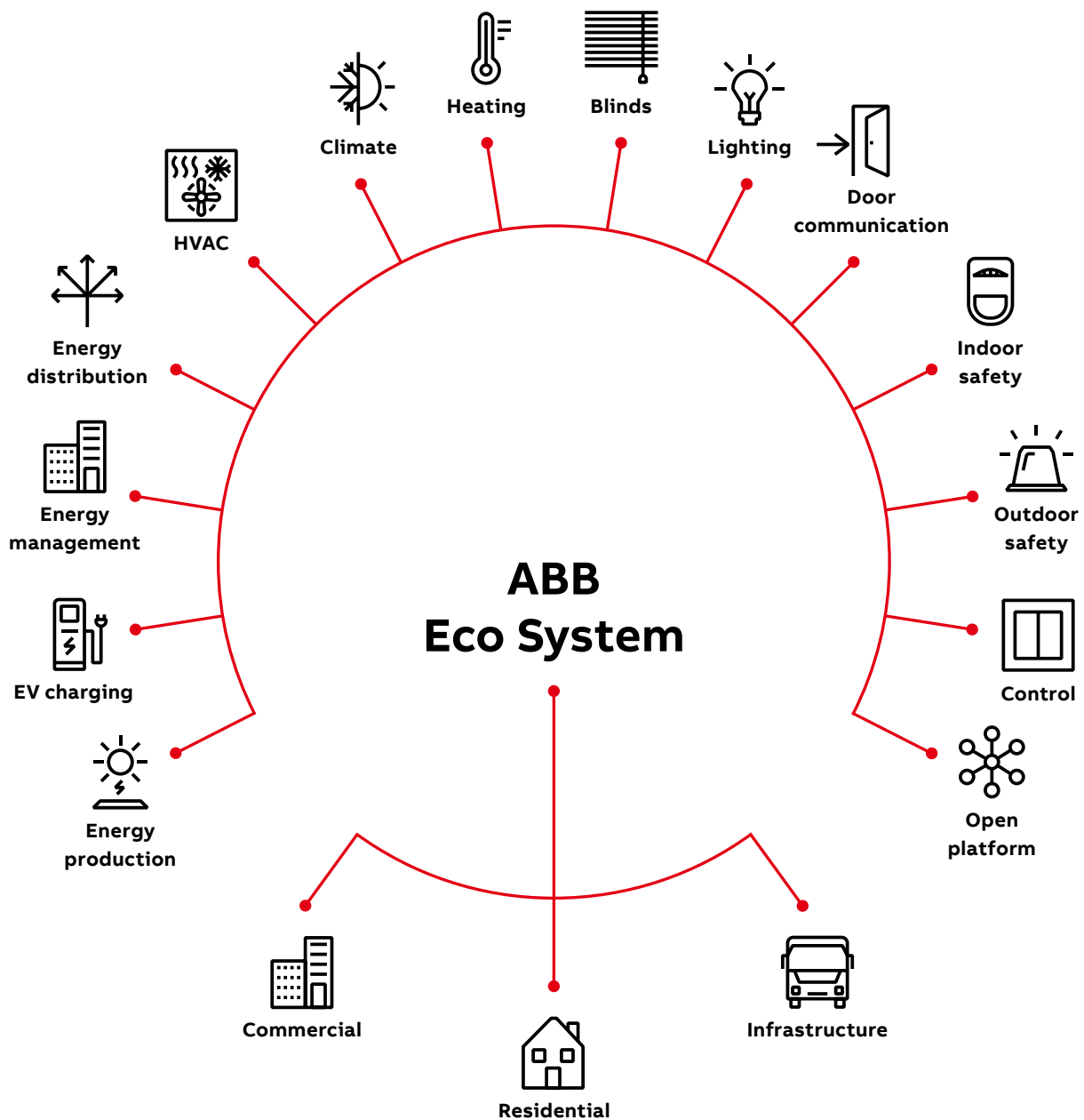


ABB Eco System

All ABB's building solutions and systems work hand in hand with each other and fall within the ABB Eco System. Together they provide a holistic answer to modern building management.

This also incorporates the cloud-based, cross-industry, digital system known as ABB Ability.

ABB Ability™

Controlling and planning smart buildings is now easier than ever: ABB bundles its digital services for homes and buildings in the MyBuildings portal under the ABB Ability umbrella. The online portal gives you access to many of ABB's tools and services that you can use for your individual needs. You no longer need to be in the building to control it. Thanks to state-of-the-art technology, ABB Ability connects people with their buildings in more ways than ever before.

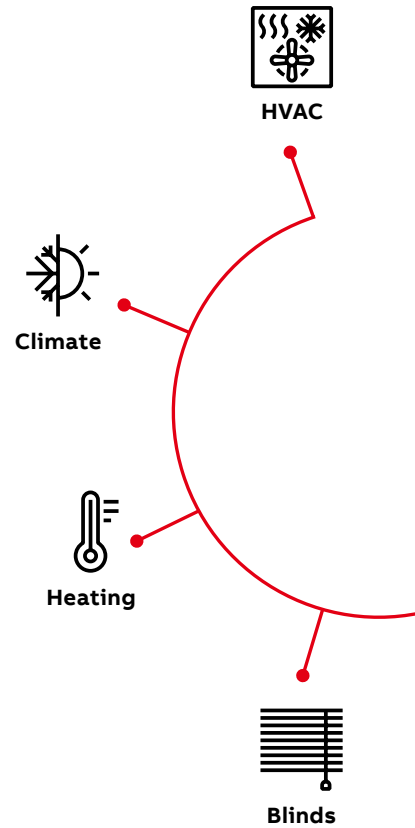
Efficient climate control in one smart system

Buildings need holistic
and sustainable solutions
to meet cost and energy
efficiency targets

HVAC

ClimaECO – all HVAC functions in one system. A significant step towards increasing energy efficiency and reducing operational costs, making your building more economic, sustainable, and comfortable.





—
HVAC automation
from room to
management level.

Modern buildings require smart HVAC systems

Depending on geographical location and weather conditions, HVAC can represent 40-60 % of the energy consumption of commercial buildings. Taking intelligent control of HVAC can produce significant energy cost savings. ABB range of FLXeon BACnet/IP automation control solutions deliver powerful control, connectivity, and visualization for intelligent buildings.

Blinds

The management of blinds can be effectively integrated into building and home automation. Open and close blinds or adjust the lamella functions fully automatically with timers, sensors, and electric motors.

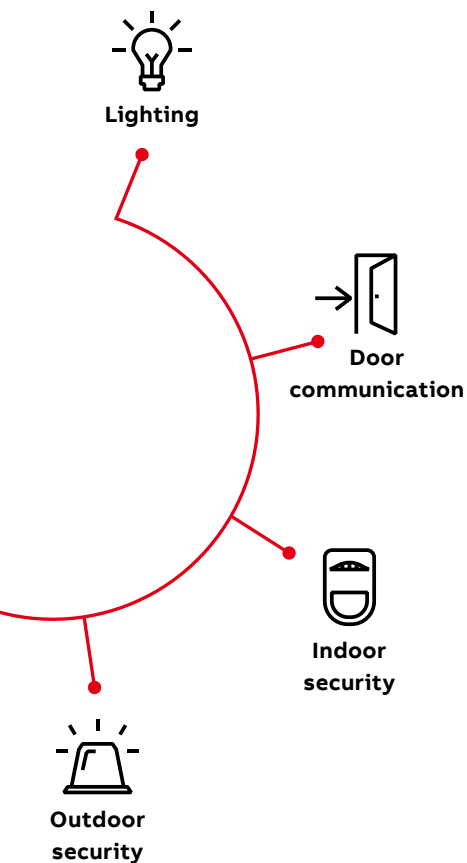


Safety and security go hand in hand

Today's networked security systems make our buildings safer for everyone who uses them

Lighting

Lighting that thinks for itself. In offices, hotels, and public buildings, light needs to function reliably and safely: but only when it's actually needed. Lights switched on unnecessarily means wasted energy and money.





Door communication

Modern buildings can now be equipped with the ABB-Welcome door communication system, providing users with maximum levels of security and comfort.

Indoor and outdoor security

Modern-day technology and contemporary design combine to deliver the ultimate in peace of mind. Whether it's protecting from intruders, fire, or floods or simply producing a greater feeling of indoor comfort, systems such as ABB-secure@ home, Busch-Smoke alarm, Busch-Presence detectors, and Busch-Watchdog have got you covered.



A state-of-the-art building requires an equally modern security system.

Control and monitoring from anywhere

Technology that is about
simplifying our day-to-day
lives



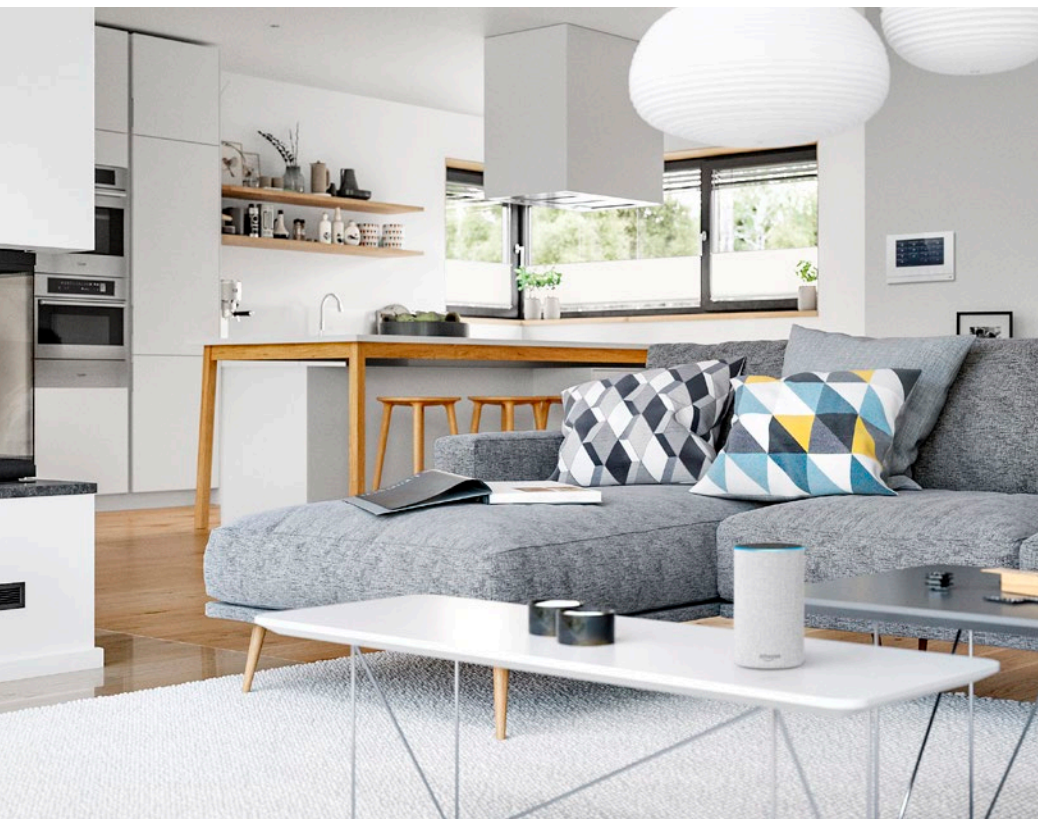
Control

Whether via a switch, a panel, or an app for your smartphone or tablet – you decide how you would like to control your building. Blind, light, heating, air-conditioning, and door communication can be easily controlled in line with your personal preferences. You can use all functions individually or combine them with each other. In other words, you determine the type and number of functions you want to intelligently control yourself.



Open platform

Modern cloud architecture monitors and optimizes the operational processes of residential and office buildings, industrial facilities, hotels, shopping malls, and schools. You have the option to plan ABB-Welcome, ABB i-bus® KNX and ABB-free@home® systems, and as well as to extend system functionality with remote access or voice control.



Control



Open
platform

—
Your Smart Home can be controlled via voice command using Amazon Alexa, Apple HomeKit, or Google Home.

Energy efficiency as a future expectation

Collecting and monitoring energy and consumption data is the key to increasing energy efficiency

The Terra DC charging station is suitable for highway rest stops, gas stations, car dealerships, branches, and heavily frequented inner-city areas.



Energy production

Network and plant protection solutions are developed specifically for power generation plants. They detect both over- and undervoltage as well as changes in the network frequency. They are used, for instance, in larger photovoltaic and wind power plants.

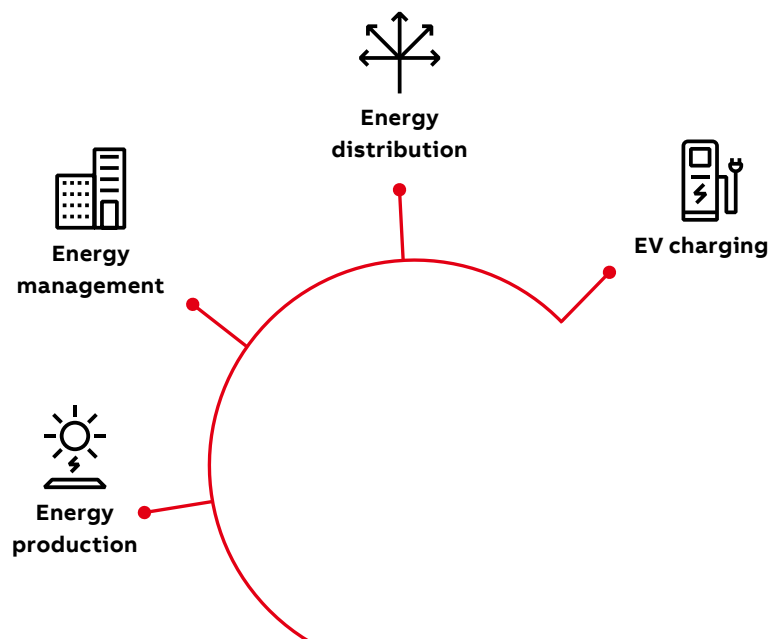
Energy management and distribution

A solution that saves, analyzes, and increases transparency: from light, heating, and air-conditioning consumption to the energy management of a building from one central point. This ensures intelligent energy consumption and efficient operational processes.



EV charging

Charging is the new refueling. Fast, easy, and available everywhere – wherever you are. With electromobility, you maintain the flexibility you've come to expect.



More than a question of taste

Design by ABB

Great design is fundamental to providing people with exactly what they need and desire in their lives. As well as pleasing aesthetically, it should also have a strong element of functionality to help people make the best possible use of their surroundings.

ABB's attention to detail extends to everything from the initial drawing to the finishing touches, from the smallest contact to the most functional surface. All with a view to creating something that leaves people feeling inspired and in control.

The IP touch 7" panel.
Designed to impress with
both its look and its feel.





Architecture places technology at the forefront

Modern design needs to reflect the ever-increasing role of technology in today's residential and commercial buildings

ABB products are not only some of the most technologically advanced on the market, they're also recognized for being some of the most beautiful. Whatever the shape, whatever the form, ABB impresses with the diversity of its designs and is continuously coming up with fresh, new ideas that combine design and functionality, enabling a customer's vision for their building to come true time and time again.

An example is the award-winning ABB RoomTouch® KNX display. Material quality and precision are delivered through its super slim 11 mm design in combination with a sleek metal frame and high-quality glass panel, which is available in stylish black or white color finishes.



ABB has been recognized on numerous occasions for achievements in innovation and design.





Clean-lined, minimalistic, functional. ABB values technology and design equally and its touch displays are a prime example of this.

The latest technology is fundamental to improving building efficiency and security but means nothing if the design fails to inspire. ABB movement detectors are an example of how state-of-the-art technology and design work beautifully hand in hand.



Function in its most beautiful form

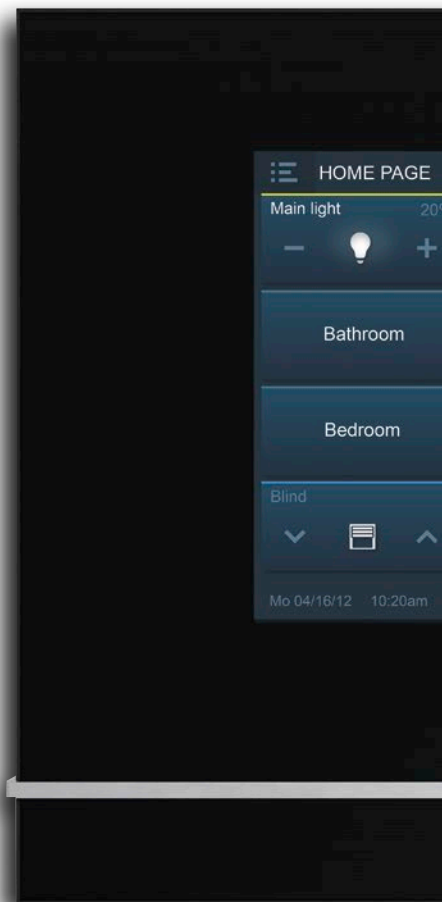
Maximum functionality and a personal touch: with intelligent control elements for buildings that are as individual as their occupants. ABB sets standards in designing products that blend seamlessly into every kind of interior

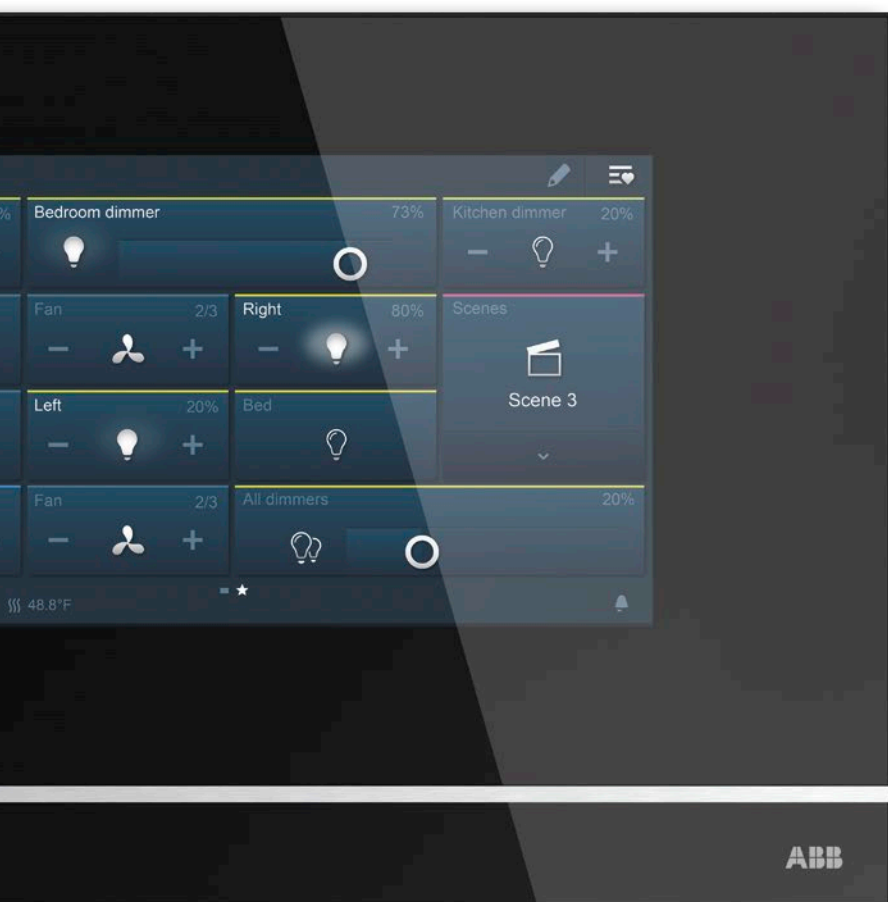
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03

State-of-the-art control panels are designed to fit perfectly into a room's design without stealing attention from the overall look and feel.

The right solution for every requirement

With a wide range of well thought-out products, optimal door communication can be achieved for any type of building thanks to 2-wire bus technology for easy installation, coupled with high-quality, carefully coordinated materials. This makes ABB-Welcome suitable for both initial use in new buildings and for subsequent integration during modernization of any type of property.

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02

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04—
05

- 01 ABB-Welcome outdoor video station
- 02 Busch-SmartTouch® 7"
- 03 Busch-Icelight®
- 04 ABB tacteo® KNX sensor
- 05 ABB RoomTouch®
- 06 Busch-Radio BTconnect DAB+, future® linear

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06

Switches for every kind of building design

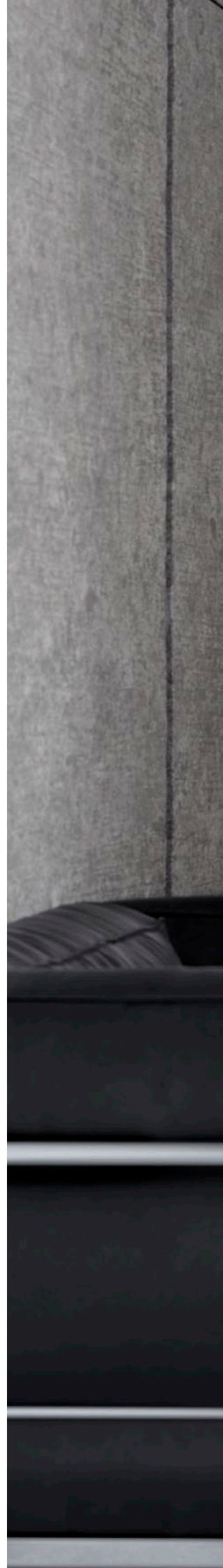
Outstandingly consistent

At ABB we attach great importance to the details. Such as a switch's shape or feel, its surface or acoustics, its color or material. And it's the range of these details that means we can now offer an extensive portfolio of switches to suit every type of personality and every style of building.

We take switches from being a necessary after-thought and turn them into a fundamental part of a room or building's design.



Unwaveringly stylish and consistent in form, material, and design: pure stainless steel offers 100% quality and durability.





Light creates atmosphere

For us, the beauty of light begins with the design of the light switch.

For individualists who prefer unique pieces, the carat® light switch range now also offers genuine porcelain. The noble look of porcelain anthracite blends harmoniously and discreetly into stylish interior designs.



Genuine high-quality materials for individualists

Individualism is becoming ever more important, and the desire for a home that reflects personality is increasing.

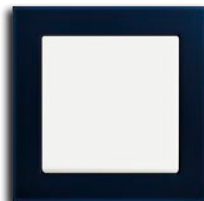
The modified Busch-axcent® pur range does justice to this desire: with new materials of even higher quality and individuality as well as colors in combination with the usual puristic optics of Busch-axcent®.



01



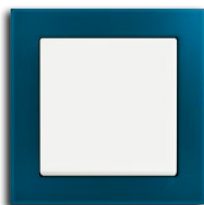
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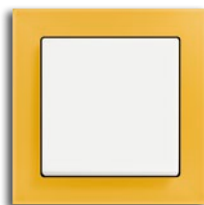
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04



05



06

- 01 glass coral/studio white matt
- 02 glass avocado/studio white matt
- 03 glass purple/ studio white matt
- 04 glass oyster/studio white matt
- 05 glass ocean/studio white matt
- 06 glass sun/studio white matt

- 09 slate grey /black matt
- 10 concrete grey/black matt
- 11 paper blue/black matt
- 12 paper brown/black matt



09



10



11



12



Diversity of choice to support every vision

A range of switches and sockets that put the finishing touches to design-oriented hotels, offices, hospitals, and other public and residential buildings

Your vision and ideas shouldn't be held back by switches and sockets that stand out for all the wrong reasons. That's why ours come in a range of shapes, colors and finishes to complement every kind of room and building design imaginable.

Timeless design and modern functionality create individual living ideas.

01



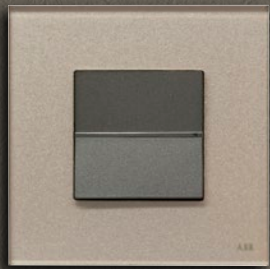
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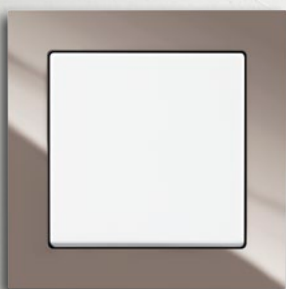
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08



06



09



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01 Impressivo
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02 carat®
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03 pure stainless steel
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04 Zenit
—
05 Busch-Dynasty®
—
06 Busch-axcent® /
Busch-axcent® pur

—
07 Sky Niessen
—
08 solo®
—
09 Swing®L
—
10 basic55®
—
11 future® linear

Design light switches to cater for the needs of modern living spaces

The world has changed, interior design has evolved, and ABB has responded by providing new options to cater for the needs of modern living spaces. Quality, sophistication, and exclusivity have defined ABB's signature ranges for years. Control, functionality and convenience that will always fit the desired look and feel of the building.

Marble, glass, and metal have given way to new design trends where warmer colors inspired by natural elements such as coffee beans, earth or sand evoke a greater sense of well-being. — The two latest Millenium colors Mocha Brown and Dune Sand are inspired by these familiar elements to bring a warm feeling to the interior design of contemporary spaces.



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01



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02



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01 dune sand

—
02 mocha brown



01



02



03



04

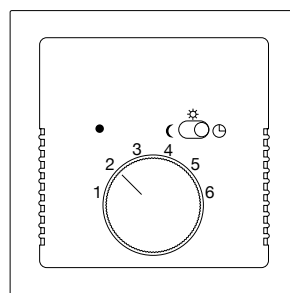
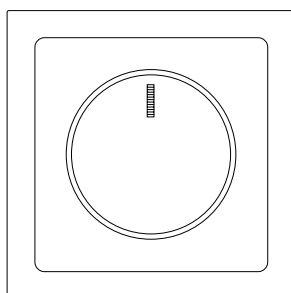
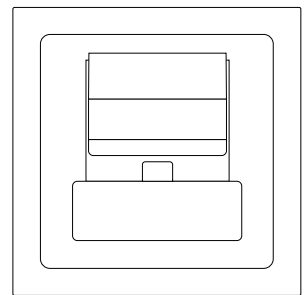
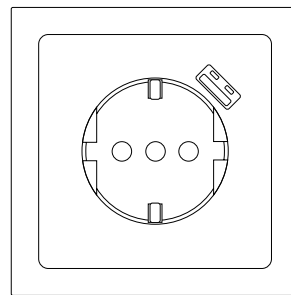
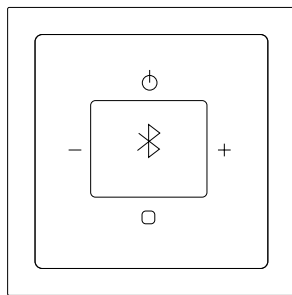
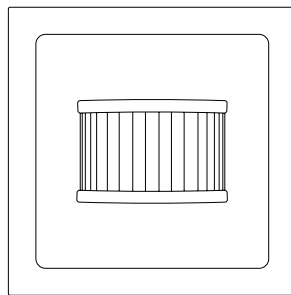
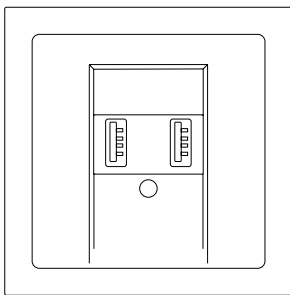
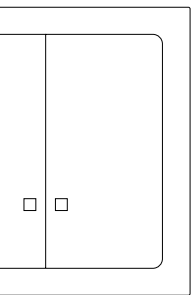
Simplicity for timeless design

The ABB offering appeals to different needs and has evolved to provide simple design that perfectly complements any home and commercial building interiors. With its functional simplicity Inora range of light switches and wiring accessories creates a timeless aesthetic: your first choice for simple and elegant interior spaces.

- 01 white
- 02 classic grey - G
- 03 starry black - 885
- 04 royal gold - PG

Ultimate functionality has never looked this good

Building control is easier than ever thanks to a wide variety of functions that offer simplicity through the latest technology





— Besides smart solutions ABB offers a wide range of conventional solutions to control an automated building manually.

From light switches through blind control to smartphone charging stations: our wide design portfolio offers you a comprehensive range of functionality to meet all your requirements and ensure a stylish, uniform appearance. The switch ranges are particularly suitable for design-oriented hotels, residential buildings, offices, hospitals, and public buildings.

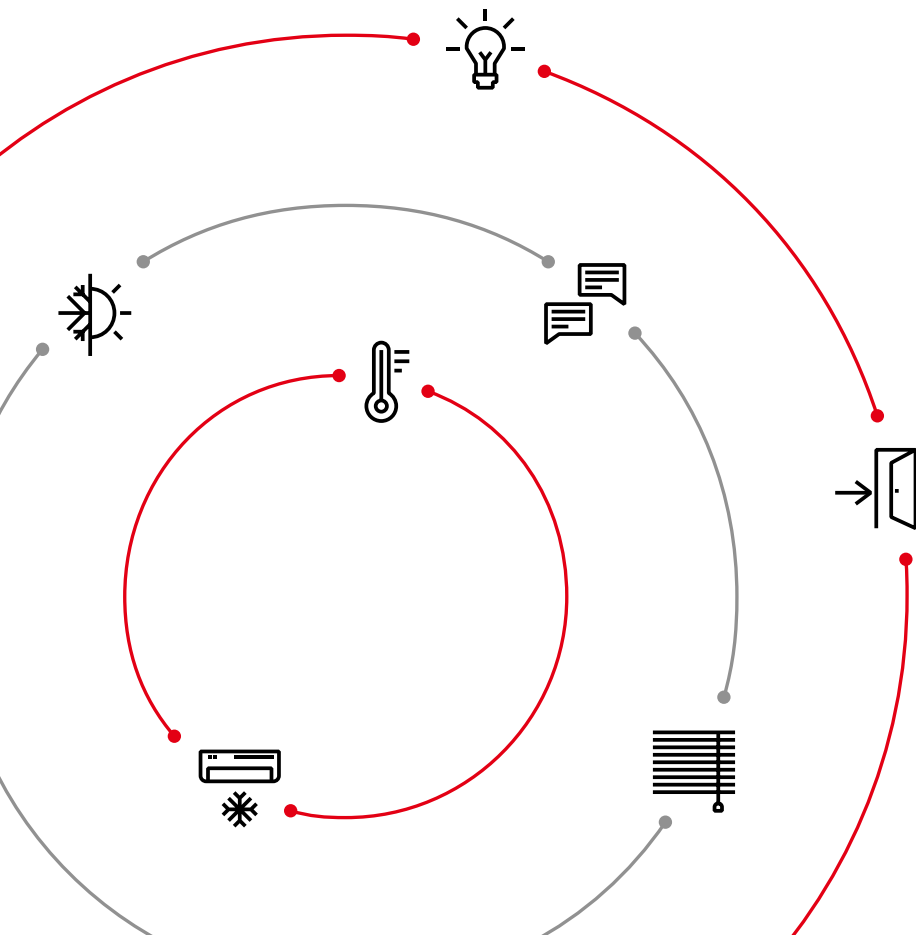


Building intelligence powered by smart technology

ABB building and home systems

Flexibility, efficiency, security.
Powering today's and tomorrow's modern buildings requires more than just creative ideas. ABB not only understands what a smart building should offer, it is also an expert in knowing how to develop the technology behind it.

Systems such as ABB-free@home®, ABB-Welcome and ABB-secure@home offer a comprehensive range of solutions that ensure an ABB-powered building reliably gives users a unique, individual experience.



—
Intelligent buildings
are powered by the
smartest technology.

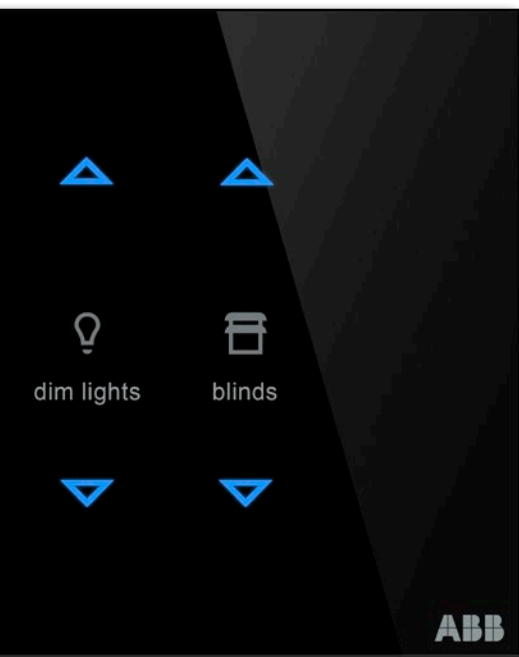
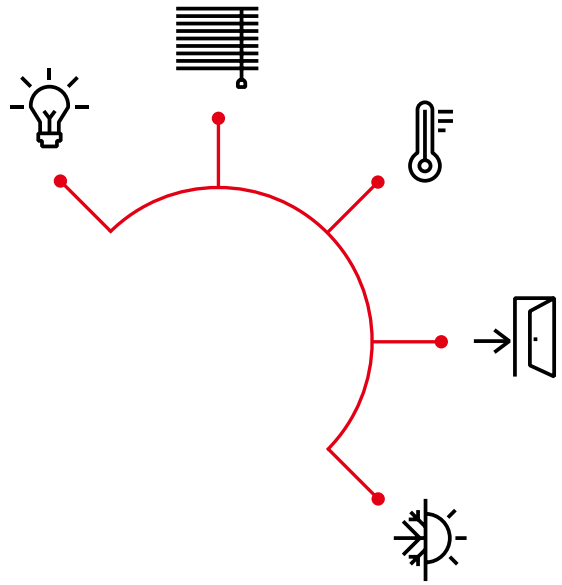




ABB i-bus® KNX

Intelligent building solution for the demands of today and tomorrow

ABB i-bus® KNX is based on the international KNX standard. It is not by chance that ABB plays a leading role in the KNX Association. The fully developed state-of-the-art technology can be used universally and integrates itself perfectly into all current architectural and utilization concepts.



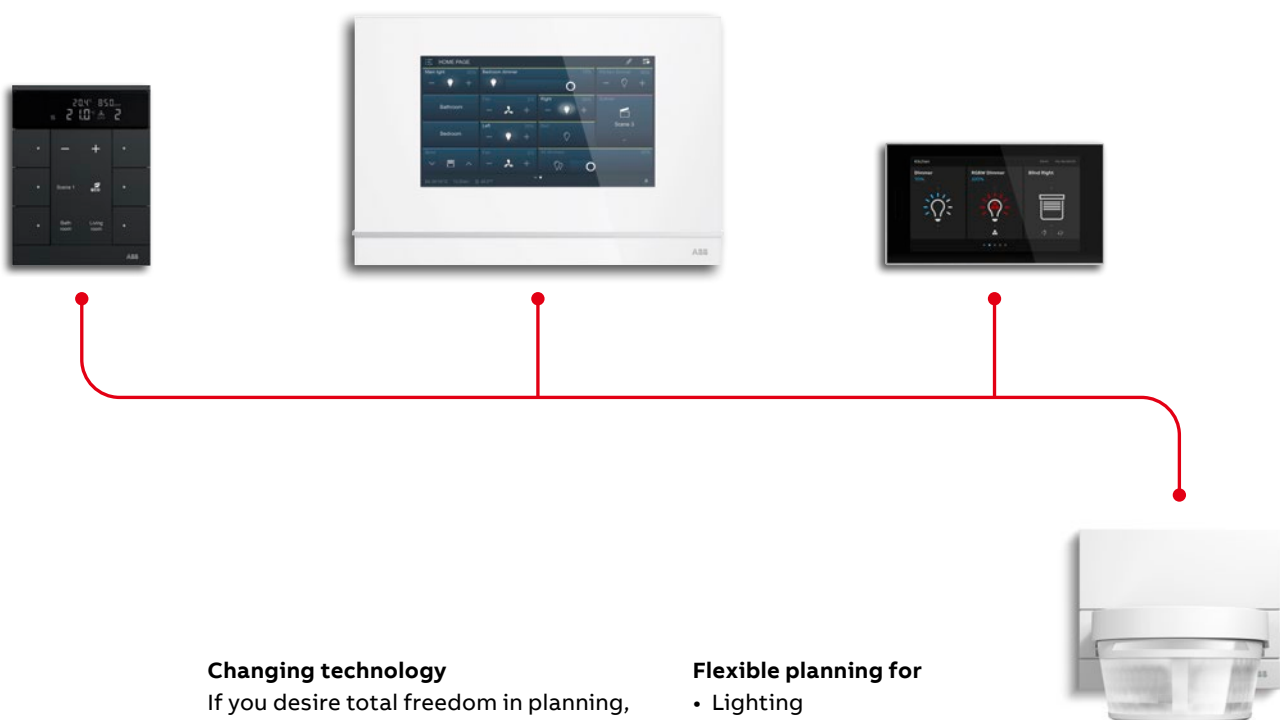
The ABB tacteo® KNX sensor is a control element that can be individually configured for intelligent building control of high-end luxury hotels, public buildings, and apartment blocks.

Global perfection

The ABB i-bus® KNX technology is used every day throughout the world by electrical planners, electrical installers, and system integrators. The concept is so well thought out that the people in the buildings are unaware that it is operating, because all the components of the technology bring about a fully functioning unit from the first project step to running operation.

Benefits for suppliers

- Reliable planning
- Economic installation
- Fast integration
- Easy to start up
- Flexible extension
- Safe investment for the future



Changing technology

If you desire total freedom in planning, look no further than ABB i-bus® KNX. The KNX standard even allows the products to be selected independent of manufacturer. The functions of the different trades are linked together, and changes and extensions are possible during the project – without new planning or new cables. Existing systems can also be adapted after many years. Complex becomes simple.

Flexible planning for

- Lighting
- Air conditioning
- Shading
- Safety
- Energy management
- Operation
- Automation
- Communication

ABB-free@home®

Home automation easier than ever

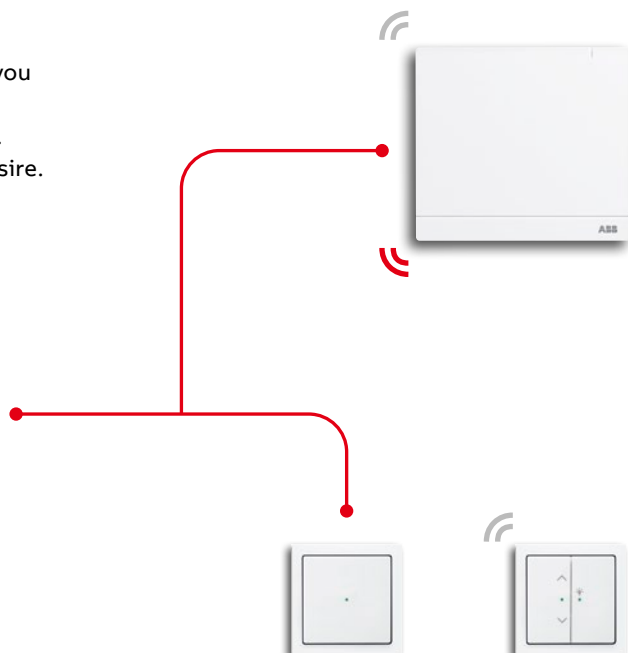
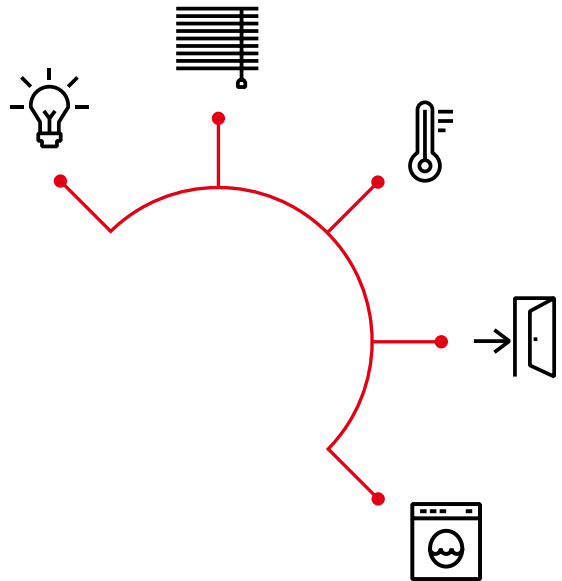
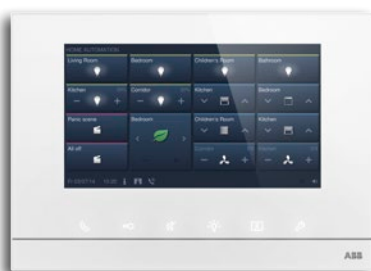
All Smart-Home-capable devices from Miele and Home Connect can be integrated in ABB-free@home®



ABB-free@home® is specially tailored to meet the needs of smart residential buildings and is excellently suited for both new buildings as well as renovation projects. Whether blinds, lights, heating, air conditioning, or door communication, it can all be easily controlled to suit your personal preferences.

A perfect example: to change the lighting mood, just tap on the touch screen of your tablet or smartphone, or use a simple voice command: the blinds will move and the lights will change color. You can use all functions individually or combine them. In other words, you determine the type and number of functions you want to intelligently control yourself. Plus, you have the option of adding desired additional functions at a later date. Simply smarter – for the life you desire.

When needing to change the ambient features of a room, simply adjust the blinds, lighting, or air conditioning from a single, stylish wall panel.



Simple control from a single source



Via touch panels

Panels can be configured with your personal settings and control all functions in your living area from one central location on the wall. The touch screen is easy and comfortable to operate by simply swiping or tapping.



Via Smart Home switch

The switch is the classic operating mode to control your Smart Home. Available in a range of modern designs, our switches enhance every wall and impress with their excellent surface feel and hard-wearing user interfaces.



Via cloud

With the aid of the app, you gain access to your Smart Home from anywhere. Simply log in to the MyBuildings portal, and then most functions can be checked and controlled on your smartphone or tablet via the cloud while traveling.



Via voice control

"Switch on the ceiling lamp in the living room." The system answers: "Okay. The ceiling light has been switched on." The intelligent voice control feature lets you control all the functions in your home via voice command. Perfect when you want to spend a few more minutes in bed.

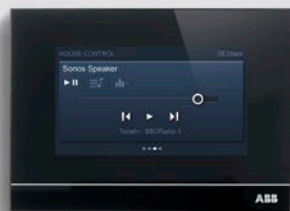
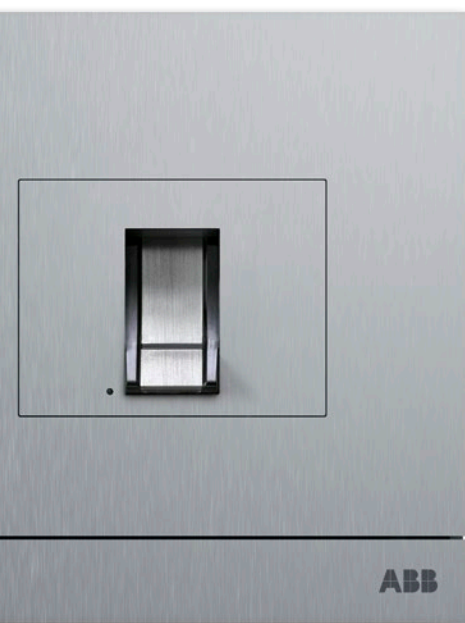
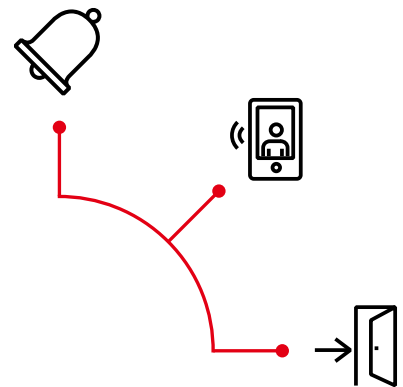


ABB-Welcome

Open to any possibilities:
door communication systems
for homes or buildings

The front door is the gateway between two worlds. It's what separates and protects living or working spaces on the inside from the outside. The ABB-Welcome door communication system creates new possibilities of entry between these two worlds. It takes care of both comprehensive safety and greater comfort, all revolving around the doors to your home or building. Whether it's a door opener, door communication, light switch, or video surveillance, ABB-Welcome offers you a multitude of solutions you can control via a panel on the wall, a tablet, or with a smartphone. As well as a stand-alone solution, ABB-Welcome can also be combined with ABB-free@home® or ABB i-bus® KNX.





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ABB-Welcome offers you functions to make door communication comfortable: from the bathroom, the couch, or while out and about.

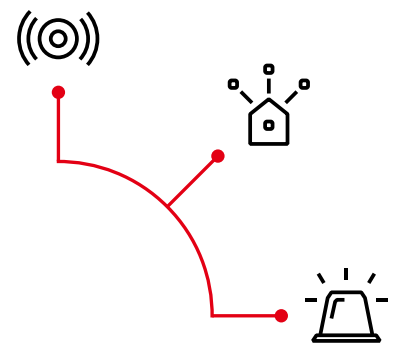
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The ABB-Welcome product series is a holistic system that sets new standards, fully complementing the whole range.



ABB-secure@home

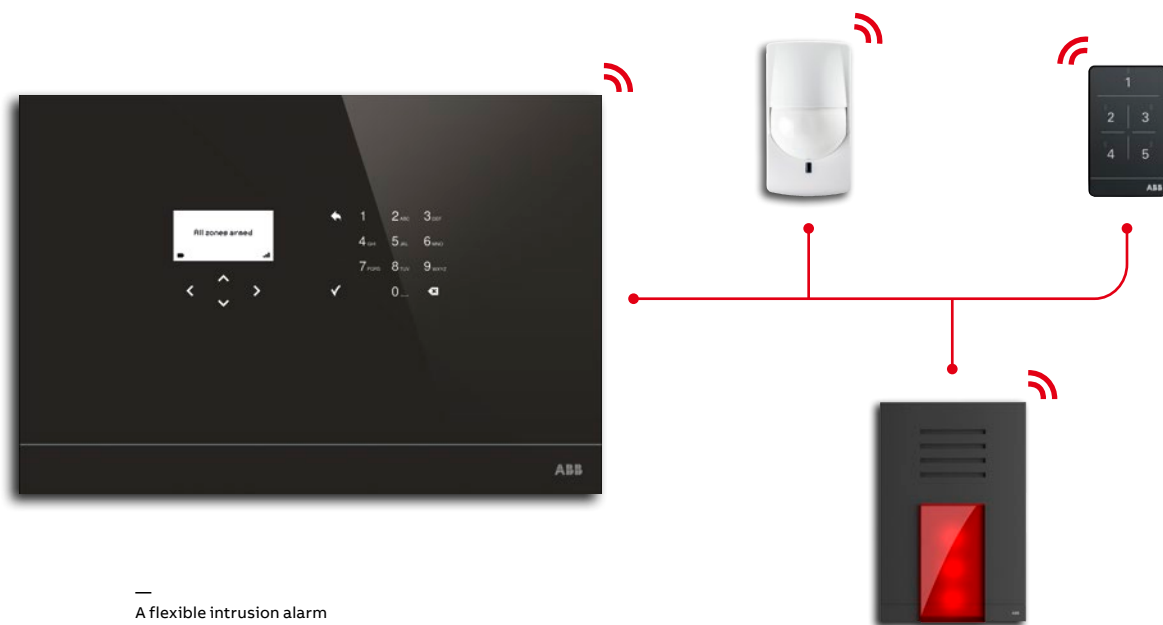
All-round protection both indoors and outdoors

ABB-secure@home helps you keep everything under control. The wireless system protects residential buildings and properties from burglary and theft, but also from sources of danger such as fire or water. It is easy to install, won't damage walls or floors, and can be easily integrated into ABB-free@home®. In the event of an alarm, for example, the lights can be switched on and the blinds raised. Total synergy – Smarter Home.



Comfort in your hands

ABB-secure@home puts the power of your anti-intrusion system directly into your hands in the most simple way possible: with a stylish plug-and-play remote control. Five keys are preconfigured but freely reconfigurable based on user preference. The most common functions are assigned to the five preconfigured keys, to activate internal and external alarm systems, to deactivate all the anti-intrusion zones, and to trigger a panic alarm.



A flexible intrusion alarm system that can be adapted to any home.

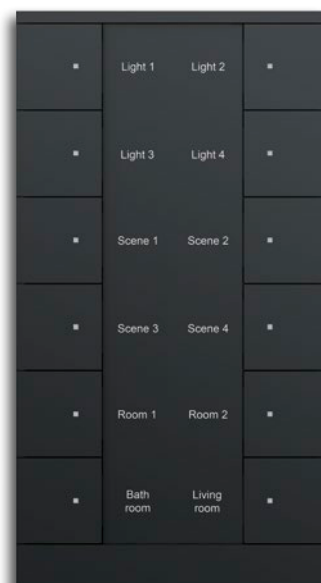
Customized for you

For individual requirements



The new ABB tacteo® color range offers a selection of current trends and adds a colorful touch to customized interior design. You can find the configurator in the MyBuildings portal or at: **tacteo-configurator.my.abb-livingspace.com**

For the clear designation of the ABB Tenton® control elements a labelling tool is available online with which you can position any text and instructive symbols individually for every product. The respective size can be freely selected from the recommended values. Your entries are displayed the way they will be seen later on the device. And this optionally on a foil in matt black with white text as well as aluminium silver or studio white with black text.



Frozen Music

ABB in Architecture

ABB launched an inspirational architectural video series “Frozen Music”, named after the inspirational phrase “architecture is frozen music”, which was made popular by authors such as Wolfgang von Goethe.

The video series features innovative buildings around the world and the architects behind them. It explores building design in the context of location, impact, purpose and new technologies.

Katrin Foerster, ABB’s International Key Account Manager for Architects and the presenter of the videos, takes the viewers around the world and demonstrates how thoughtful design and the use of technology creates a smarter and more sustainable environment, whilst supporting our lifestyles.

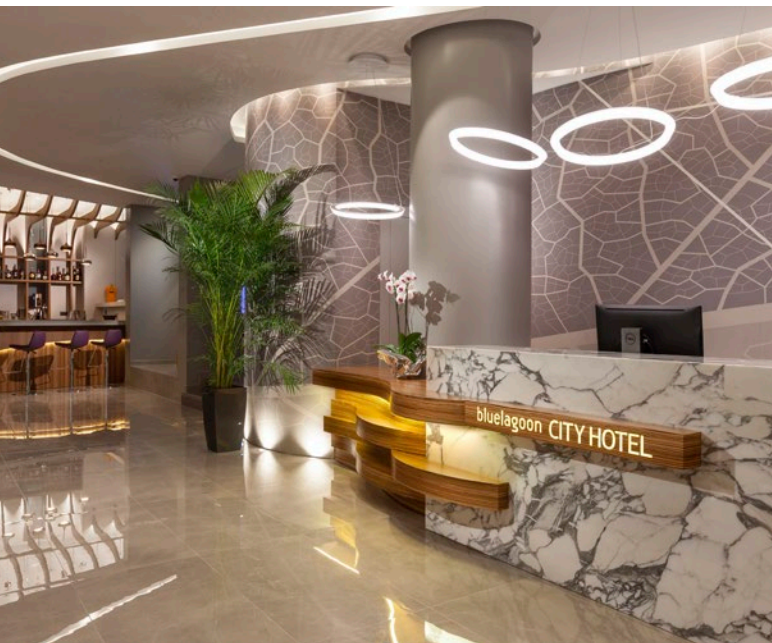


“Architects play a significant role in the creation of our habitats through building design,” said Katrin Foerster, ABB’s International Key Account Manager for Architects and the presenter of the videos. “Each video focuses on a special project and the creative mind behind it. They will be of great interest to not only architects and designers, but also everyone who is interested in good design. This will appeal to planners, developers, hoteliers and everyone working in the construction and design industry, both clients and end-users.”

Don’t miss one of our episodes and visit **go.abb/frozenmusic**

References

We help these partners achieve their vision



Blue Lagoon City Hotel

Located in the heart of Kos, the Blue Lagoon City Hotel is the latest four-star luxury hotel within the Blue Lagoon Group. Its ultra-modern guestrooms and suites provide guests with a wealth of elegance in a modern, city-feel ambience. Intelligent building management is provided by ABB's tacteo® KNX Sensor – an individually configurable control element that's designed with the management of luxury hotels and other high-end buildings in mind.

Location	Kos, Greece
Architect	Bios Architecture
Products	ABB i-bus® KNX system, ABB tacteo® KNX sensor range

Private Villa

For the owners of a monolith-design weekend home near Heidelberg, Germany, taking it easy has been raised to the next level thanks to ABB. They are able to control all their home services such as blinds, lighting, and heating from the elegant Busch-ComfortTouch® control panel as well as from the app on their tablet or smartphone. Added peace of mind comes from the integrated ABB-Welcome system, which provides even greater security and comfort.

Location	Close to Heidelberg, Germany
Architect	Thomas Fabrinsky
Products	ABB i-bus® KNX system Busch-ControlTouch® KNX

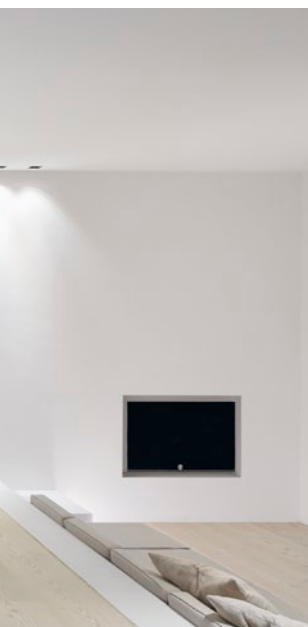




Viettel Headquarter

Carlos Gerhard and his team from Gensler designed the magnificent new headquarters of Viettel in Hanoi, Vietnam, bringing a completely new optical and emotional experience both to the working environment and to the city itself - combined with technology that will help lead Vietnam into a cleaner and more sustainable future!

Location	Hanoi, Vietnam
Architect	Gensler
Products	HVAC ACH580 drives, System pro E power, Medium Voltage Switchgear Unisec, Type Tested Low Voltage Switchgear and Dry Transformers



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Notes

