



**BOSCH**

Invented for life

## Solutions for residential buildings

[bosch.com/residential](https://bosch.com/residential)

Safe. Livable. Sustainable.





## Bosch solutions for residential buildings



When you choose Bosch as a supplier of products and solutions for residential buildings, you can be assured of cutting-edge technologies from a global provider. True to our company slogan "Invented for life", our products and solutions are designed with our customers in mind. As a leading global supplier of technology and services, Bosch understands that professionals need to be able to rely on their industry partners for technical expertise and innovative thinking.

Bosch provides a comprehensive range of products and solutions for residential buildings across the world, has a choice of products that are commonplace across residential-building projects, whether the project requires energy-efficient heating and hot-water systems, smart home solutions or the hard-wearing power tools needed for professional installation work.



# All solutions for residential buildings

## SAFETY & SECURITY



6 Smart Home solutions

## HOME APPLIANCES



7 Household appliances



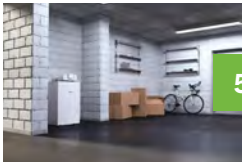
8 A strong supply chain



## ENERGY



9 Decentralized heating



10 Centralized heating



## BUILDING MANAGEMENT



8

**13** Energy and building solutions



9

**14** Professional power tools



10

**15** Elevator emergency call

## PARKING



11

**16** Automated valet parking



12

**17** Community-based parking

## SMART BUILDING



6

**11** Connected building



7

**12** Predictive maintenance

# Bosch Smart Home – for a home that takes care of itself

Bosch Smart Home solutions make the home more convenient and secure. Intelligently connected devices controlled via the app or voice controlled via Amazon Alexa automatically take care of many tasks. Bosch Smart Home offers a wide range of smart system and single solutions, to make homes suitable to individual needs. The system offers even more security, convenience and a pleasant climate.

Bosch Smart Home ensures a pleasant climate and enhanced convenience for the home – while saving time and energy costs. Every room is heated at the right time, electrical devices are automatically switched off – or the light switched on to coincide with the residents return. Bosch Smart Home uses intelligent cameras for indoors and outdoors and smart connected smoke and motion detectors, lighting controlling and door/window contacts to make the home completely secure. Connecting the various components creates an effective alarm system that warns the resident of emergencies via the app. The smoke detectors siren will alert the resident to smoke and also act as a deterrent in the event of a break-in – doubling the homes protection.



## Benefits

- + The Bosch Smart Home system is always up-to-the-minute thanks to automatic software updates. It combines components easily and unlocks unlimited functionality
- + Bosch offers an extensive range of services for the Bosch Smart Home systems without any monthly subscription fees.
- + Inspiring with its diversity of products and attractive combinations the Bosch Smart Home system generates a constant stream of new functions including alternative user-friendly operating options due to the ever-growing range of products and partners.



# Household appliances

When selecting home appliances for residential projects, quality manufacturing is just the beginning. Getting visions off the ground takes reliable people and expertise from start to finish – and beyond. And that's what partnering with Bosch Home Appliances means. For well over a century, Bosch has built relationships in markets all around the world.



Projects already have teams of people for every task. So no need for chasing down any more contacts. Partnering with Bosch Home Appliances, means having one dedicated relationship manager working closely with the customer from day one. Bosch provides access to a global team of specialists to help customers solve specific challenges along the way. The Bosch products are designed to seamlessly integrate into any layout. Bosch supports with a comprehensive CAD library helping to find the perfect fit, while engineering and building experts are on hand to offer specification support.

## Benefits

- + The high quality and the reliable service of the products help simplifying the everyday life.
- + Solid knowledge in design and planning for every step of any residential project
- + Comfortable collaboration through one dedicated relationship manager, who accompanies the customer through the project.

**bosch-home.de**

Solution provided by: Bosch Home Appliances

# A strong supply chain – reliable excellence

Bosch believes in details done right, from start to finish. That includes on-time, error-free delivery and installation, no matter for how many units. Even Bosch's distributors have to complete a rigorous training process to meet the high Bosch standards. The unwavering result is that Bosch is a reliable partner with an experience of over 130 years. Bosch appliances are designed with the future in mind and built to last. Even more importantly, Bosch stands behind them.



Bosch offers a full range of high-quality, beautifully designed home appliances that elevate any interior and make daily routines easier than ever. Stress-free laundry cycles, dishes that come out perfectly dry: These daily experiences add up to greater quality of life. Bosch draws on 13 decades of innovations and keeps advancing the status quo – in terms of design as well as technology. The Bosch appliances are sophisticated, so home life can be simple. From storing fresh ingredients, to cooking and baking, to freezing any leftovers, the Bosch appliances are designed to make daily routines more relaxing – and pleasing to all the senses. Barista-quality coffee for breakfast is just the start!

## Benefits

- + Bosch values the customers by focusing on details and on-time delivery
- + The products are designed and constructed with the customer in mind and known for their high quality standard
- + Due to Bosch's future-oriented approach, home appliances will become smarthome-ready – allowing to check the contents of the fridge from the supermarket, or preparing coffee while still being in the elevator.



# Decentralized solutions for heating, hot water and air conditioning

Decentralized solutions offer many advantages for tenants and property buyers. Bosch can realize customized system solutions with harmonized components that are ideally tailored to meet any specific need. Bosch extensive product portfolio makes it easy to cater for particular wishes.

## Benefits

- + The decentralized heating solutions are equipped with an energy-saving condensing technology and a heat output modulation.
- + Bosch provides the customer with easy maintenance and servicing.
- + With the Bosch decentralized solutions for heating, hot water and air conditioning tenants can control their own heating.

Decentralized heat generation offers high energy-efficiency, operational reliability and low management costs. Decentralized solutions simplify billing according to consumption. As every heat generator has its own meter, the utilities provider can invoice energy costs directly to individual tenants. Every resident in the property can set the heating to their own preferences. Shorter supply lines mean lower heat losses.



[www.bosch-thermotechnology.com](http://www.bosch-thermotechnology.com)  
Solution provided by: Bosch Thermotechnology

# Centralized solutions for heating, hot water and air conditioning

Servicing and maintenance of centralized solutions is particularly easy. High energy-efficiency and sustainably low environmental impact can be achieved by smart modernization and combination with regenerative energy sources. Bosch is also the preferred partner with comprehensive professional expertise for centralized solutions.

As only a single or small number of appliances need to be serviced, the servicing and maintenance costs are lower compared to decentralized solution.

## Benefits

- + Bosch offers easy maintenance and servicing
- + Bosch centralized solutions for heating, hot water and air conditioning are very cost effective.
- + The Bosch solutions for centralized heating, hot water and air conditioning offer a high energy-efficiency and a low environmental impact.



[www.bosch-thermotechnology.com](http://www.bosch-thermotechnology.com)

Solution provided by: Bosch Thermotechnology



# Connected building: How the IoT transforms residential buildings



Digitalization is already having a visible and far-reaching impact on the everyday life and the environment in residential buildings. These structures have to be more powerful and more energy-efficient while becoming easier to manage. One solution lies in the buildings' connectivity and in their interaction with the people who live there.

The connected building platform from Bosch Software Innovations connects all relevant pieces of equipment in residential buildings and stores the data in a cloud. As a result, building operators and facility managers can easily use a notebook or smartphone to monitor the key performance indicators of buildings and their use; they can also compare the performance of multiple buildings.

## Benefits

- + The core of our connected building platform is data collection in a cloud. By consolidating all data in one place, it can be accessed by all relevant parties regardless of whether they are inside or outside the building. Data can be analyzed in the cloud in real time, providing a basis for realizing entirely new types of services.
- + Thanks to the intelligent Bosch solution, building operators and facility managers can access the latest data of their buildings – anywhere, anytime. The system actively reports errors and problems, so that action can be taken to prevent the occurrence of any serious damage.
- + Providers of building technology, building automation, and software services for buildings gain continuously insights into the use of their products and services. As a result, providers can keep improving their products and services in line with their customers' needs.

**[bosch-si.com/connectedbuilding](https://bosch-si.com/connectedbuilding)**

Solution provided by: Bosch Software Innovations

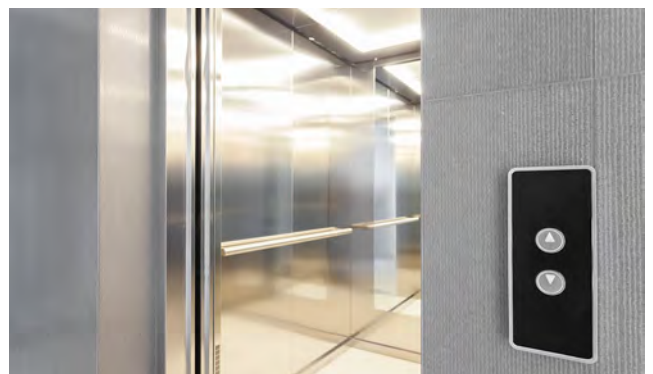
# Predictive maintenance – a preventive service solution

Bosch predictive maintenance is a cloud-based analysis system that connects elevators with a central service instance. Existing elevator systems can be retroactively fitted with sensors, which help identifying inefficient operation parameters and dysfunctions without resorting to the expensive services of technicians on-site. Malfunctions, maintenance and upcoming repairs are coordinated and documented by a central service team.

Sensor systems implemented in elevators allow on-going monitoring, with data visualized via a web portal. A status dashboard provides real-time information. This facilitates the correctly functioning elevators or reduces their downtimes. If fixed parameters are exceeded, the relevant parties are informed, and repairs and maintenances are initiated – as pre-defined with the operator.

## Benefits

- + Information such as system status, covered distance, door openings, start and stop procedures and emergency stops are transferred and analyzed by a central station that initiates maintenance procedures. Downtimes are reduced to an inevitable minimum due to the high level of transparency.
- + Function checks conducted by expensive on-site technicians can be reduced with the help of remote diagnosis. This leads to cost savings.
- + The possibility of a quick retrofit was taken into account in the early stages of product development. This means elevators continue operating during the retrofit installation procedure, and downtimes are minimized.





# Energy and building solutions

As a reliable partner, Bosch provides connected and integrated solutions which make buildings safer, more comfortable and more efficient. The Bosch experts support as consultants, installers and service providers. They have an extensive expertise and integrated solutions based on the latest technologies. Bosch offers integrated solutions for building security, building automation and energy services. All of Bosch's services are provided from a single source: from consulting and planning across implementation to operation. This enables Bosch to comprehensively meet the customers' needs. Bosch is active at more than 60 locations in Europe, the U.S. and Asia Pacific, and more than 100,000 customers benefit from experts' know-how.



## Benefits

- + Due to Bosch's long-standing competence, buildings will be made fit for the future with a targeted approach and experienced staff.
- + Short distances, competent teams and local contacts ensure professional consultation, optimal project implementation and long-term on-site support.
- + Bosch offers integrated overall solutions and attractive financing and operating models, are optimally tailored to every individual requirement.

Scarce resources, climate change, urbanization, demographic shifts, digitalization, and demands for greater quality of life – the mega-issues of our time require major changes in the infrastructures and commercial buildings. The need for security, efficiency, and comfort is rising, as well as the demand for connected overall solutions. The Internet of Things is opening up many new possibilities and opportunities. Connectivity is bringing scores of new developments! One of it is that key areas of building services will be closely interconnected in the future. Leveraging and applying all the synergies in a sustainable way requires an integrated approach and course of action. Bosch has the essential areas of expertise needed to integrate all key aspects into a single solution. Bosch is focused on a clear vision – to be the number-one choice for the technologies and services that make buildings more secure, more comfortable and more efficient.

**[boschbuildingsolutions.com](https://boschbuildingsolutions.com)**

Solution provided by: Bosch Building Technologies

# Professional power tools for trade and industry

A craftsman puts his heart and soul into his projects. Expectations are high: client requirements, appointments and construction challenges. That's what drives a professional to maintain high standards, deliver the best possible result and work with uncompromising efficiency. For that, skills and robust tools are needed. Bosch Professional offers the best support with innovative technologies and smart solutions. From planning and organizing to successful completion, Bosch provides an intelligent range of products and services with the quality to rely on.

Bosch professional power tools are engineered for excellence, meeting the highest standards in speed, precision and robustness for consistent, professional results. Therefore, Bosch Professional Power Tools is a competent partner for all craftsmen.



As one of the world's leading manufacturers of power tools and accessories, Bosch offers professionals virtually every tool they could ever need, from state-of-the-art lithium-ion cordless (battery-powered) to class-leading corded products. Bosch Professional Power Tools focuses on providing the trust a craftsman relies on when it comes to his tools and accessories.

Bosch power tools is consistently expanding its expertise in connected measuring and power tools for professionals: from 2017 onwards the new tools are available for trades-people, from laser measures with integrated Bluetooth modules to angle grinders, lights and drill drivers.

With these tools, Bosch is driving the trend of digitization and is offering professionals a system, from products to inventory management, that optimizes processes and enables all tradespeople to work more efficient.

**bosch-professional.com**

Solution provided by: Bosch Power Tools

## Benefits

- + Bosch provides services and consulting for all professional power tools and measuring tools beyond the legal warranty period. From online information to a dedicated team of trained customer service personnel.
- + Bosch ensures an excellent availability of spare parts and a fast turnaround time for warranty and chargeable repairs.



# Elevator emergency call – important modifications for operators

Technical standards and legal regulations make elevators the safest mean of transportation. The most important requirement specifies that emergency calls have to be passed onto a permanently staffed alarm receiving station. A new version of the industrial safety regulation states that all elevator systems transporting people need to be equipped with a two-way communication system. This is a challenge for operators.

The Bosch elevator emergency call combines fitting of emergency devices with the activation of emergency calls, so the operator can concentrate on his main business. The retrofitting of the required two-way communication system including its activation takes little time.

If trapped people trigger the emergency call, an immediate voice connection is established with the Bosch alarm receiving station. Agents calm the affected and organize their swift release. Bosch works with a nationwide network of intervention partners.

Furthermore, Bosch employees organize the repairs of the elevator. Every notification and event is documented for the elevator operator.



## Benefits

- + Bosch's network of intervention partners is one of the most effective in Germany. Due to the high amount of partners, trained security forces will quickly reach the site. With 50,000 monitored elevator systems, Bosch offers security for almost every system.
- + Bosch offers producer-independent and preconfigured emergency packages inclusive installation and the connection to the alarm receiving station for almost every kind of installation.
- + The technology can provide information on the operation status of other elements e.g. errors of the heating or air conditioning system, or the leakage of water and gas. Bosch's predictive maintenance services visualize the current conditions via a web portal. Potential breakdowns are detected early and repairs are initiated.

**boschservicesolutions.com**

Solution provided by: Bosch Service Solutions

# Automated valet parking

As a pioneer of automated mobility, Bosch has developed a driverless system that employs connected technology to save drivers not just the wearisome search for a parking space, but also the parking maneuver itself. Thanks to automated valet parking, every experience begins more convenient – whether it's flying off on holiday or going to a concert. Therefore, the driver simply drops off the vehicle at the drop-off area. Then the vehicle will be navigated to a free parking space with the help of the intelligent sensor technology.



## Benefits

- + Automated valet parking offers the car driver comfort and saving of time, as the vehicle takes over the driverless parking maneuver itself. Meanwhile, the driver can already proceed to his destination. Getting in and out of the vehicles takes place in comfortable and safe transfer areas. In addition, precise automated guidance eliminates the risk of incidents and damages while parking.
- + Automated valet parking increases efficiency due to the optimization of the parking garage capacity. The premium service opens up a range of additional potential service offerings, like a car wash, which excites the customers. The infrastructure based approach allows mixed traffic in the parking garage.

Automated valet parking is made possible by combining the intelligent sensor system supplied by Bosch with the automotive technology. The sensors, guiding the vehicle, are installed in the parking garage monitor, the driving corridor and its surroundings. Hereby, Bosch provides the system for both the parking provider and the car manufacturer.

The usage of the intelligent parking garage sensor systems automated driving. The intelligent infrastructure allows mixed traffic of automated and manual driving vehicles and passengers in the parking garage, hence, allowing an incremental implementation of automated valet parking vehicles.



**[bosch-mobility-solutions.com](https://www.bosch-mobility-solutions.com)**

Solution provided by: Connected Mobility Solutions

# Community-based parking

With community-based parking Bosch simplifies the search for free parking spaces in the cities. Thereby, car drivers will be navigated straight to the next free parking space. This happens with the help of the ultrasonic parking sensors of the cars which detect free parking spaces on the street. The received information will be processed in the cloud and provided to drivers seeking a parking space.

Community-based parking includes drivers actively seeking a parking space, as well as those who are simply making their way around the city. The transmitter vehicle identifies empty parking spaces on the street as it drives past them. This data is anonymized and sent to the cloud. There, it is collected, aggregated, and processed further into digital parking maps. Based on the processed data, the receiving vehicle is given precise information on where free parking spaces are. The required connectivity hardware and the ultrasonic parking sensors of the car are already widely spread and facilitate a realization of community-based parking based on the latest technology.



## Benefits

- + Thanks to community-based parking the traffic of searching for parking spaces decreases significantly. In addition, the environment benefits from the direct and shorter drive to a free parking space.
- + Community-based parking enables car drivers to drive directly and relaxed to a free parking space. Thereby, the drivers save time. Furthermore, the on-board instruments indicate specific parking spaces (e.g. E-charging stations or disabled parking spaces).




















# The Bosch Group

The Bosch Group is a leading global supplier of technology and services. Its operations are divided into four business sectors: Mobility solutions, industrial technology, consumer goods, and energy and building technology. As a leading IoT company, Bosch offers innovative solutions for smart homes, smart cities, connected mobility, and connected manufacturing. It uses its expertise in sensor technology, software, and services, as well as its own IoT cloud, to offer its customers connected, cross-domain solutions from a single source. The Bosch Group's strategic objective is to deliver innovations for a connected life. Bosch improves quality of life worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that is "Invented for life". The Bosch Group comprises Robert Bosch GmbH and its roughly 440 subsidiaries and regional companies in some 60 countries. Including sales and service partners, Bosch's global manufacturing and sales network covers nearly every country in the world. The basis for the company's future growth is its innovative strength. At 120 locations across the globe, Bosch employs a huge number of associates in research and development.

The company was set up in Stuttgart in 1886 by Robert Bosch (1861-1942) as "Workshop for Precision Mechanics and Electrical Engineering". The special ownership structure of Robert Bosch GmbH guarantees the entrepreneurial freedom of the Bosch Group, making it possible for the company to plan over the long term and to undertake significant up-front investments in the safeguarding of its future. Ninety-two percent of the share capital of Robert Bosch GmbH is held by Robert Bosch Stiftung GmbH, a charitable foundation. The majority of voting rights are held by Robert Bosch Industrietreuhand KG, an industrial trust. The entrepreneurial ownership functions are carried out by the trust. The remaining shares are held by the Bosch family and by Robert Bosch GmbH.

More information is available online at  
[www.bosch.com](http://www.bosch.com)  
[www.bosch-press.com](http://www.bosch-press.com)

# Bosch divisions for selected verticals

	Airport facilities 	Automotive industry 	Commercial buildings 	Entertainment facilities 	Food and confectionery industry 	Hotel facilities 	Mining 	Pharmaceutical industry 	Railways and train station facilities 	Residential buildings 	Theaters 
<b>PROVIDER</b>											
<b>Building Technologies</b>	■	■	■	■	■	■	■	■	■		■
<b>Thermotechnology</b>	■	■	■	■	■	■	■	■	■	■	■
<b>Power Tools</b>	■	■	■	■	■	■	■	■	■	■	■
<b>Household Appliances</b>										■	
<b>Service Solutions</b>		■	■		■			■	■	■	
<b>Connected Mobility</b>	■	■	■	■		■			■	■	■
<b>Rexroth</b>		■	■	■	■		■	■	■		■
<b>Automotive Aftermarket</b>	■	■					■		■		
<b>Packaging Technology</b>					■			■			
<b>Smart Home</b>										■	
<b>Software Innovations</b>			■							■	
<b>Bosch Engineering</b>	■	■					■		■		
<b>Integrated Solutions</b>							■				





**Robert Bosch GmbH**

Phone +49 711 400 40990

**bosch.com**

© April 2018

Technical data subject to modification without notice.

Printed in Germany. Any color variations are due to the limitations of the printing process.

Printed on 100% chlorine-free bleached cellulose manufactured in an environmentally friendly process.