



BOSCH

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NEW

Innovative heating controls

Commercial boiler control systems

Control 8000 & MX25

About the Bosch Group

Leading global supplier

The Bosch Group is active in the fields of automotive technology, industrial technology, consumer goods, and energy and building technology. The Bosch Group has approximately 389,000 associates who generate sales of over €73.1 billion a year.

The Bosch Group comprises of Robert Bosch GmbH and has more than 440 subsidiaries and regional companies in some 60 countries. When sales and service partners are included, Bosch is represented in 150 countries worldwide.

We are a charitable foundation

92% of the share capital of Robert Bosch GmbH is held by Robert Bosch Stiftung GmbH, a charitable foundation, while the majority of voting rights are held by Robert Bosch Industrietreuhand KG, an industrial trust.

As part of the Bosch Group a percentage of the profits made is donated to charities and good causes both locally and internationally.



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Robert Bosch **Stiftung**

Discover Bosch Commercial and Industrial

Bosch products deliver high levels of fuel efficiency, consistent performance and have a notoriously long product life.

With our extensive history and decades of experience, you can place your trust in our custom solutions from Europe's market leader in heating and hot water systems.

All our products are subject to rigorous quality testing of each and every component, to ensure efficient, reliable and consistent performance throughout their long life and are supported by an unrivalled technical support team.

From initial consultation, system design to final commissioning and on-going, whole-life support, we offer the complete package.

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BMS or no BMS – when to choose a Control 8000 or an MX25?

Control 8000

Intelligent internet-connected control which can stand alone or be integrated with a building management system (BMS). Compatible with GB162, Bosch Condens 7000 F and Combined Heat and Power (CHP).



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MX25

A simple control option with integrated 0-10V, makes this a cost-effective way to integrate it with a building management system (BMS). Compatible with Bosch Condens 7000 F.



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The new Bosch Control 8000 – setting the standard in digital control systems

Modern heating systems often incorporate more than one energy source and a range of types of heat emitter. Efficient performance requires effective control from a central point to ensure these components are integrated to optimum effect.

To meet this challenge, today's control systems must perform better than ever before and deliver ease of control, a modular design and connectivity through an intuitive, user friendly interface.

Intelligent connected technology that adapts to you

Our Control 8000 sets a new standard within the industry thanks to its ground-breaking easy functionality, an integrated Modbus interface and effortless IP connectivity. It does more than just maximise the efficiency of your heating system – it also communicates with your building management system (BMS).

Intuitive operation

What if you could operate your commercial heating system as easily as your tablet? You can with our Control 8000, which provides graphic representations of all your heating circuits and system components – which you can also individually name.

Heating circuits and heat sources can be displayed in detail on multiple levels through hydraulic drawings. There are manual operating levels for all system components and a simple tap on the screen is all it takes to switch to retro mode.



Basic view



Retro mode



Monitoring / Boiler manual operation



Heating circuit operation



Target room temperature

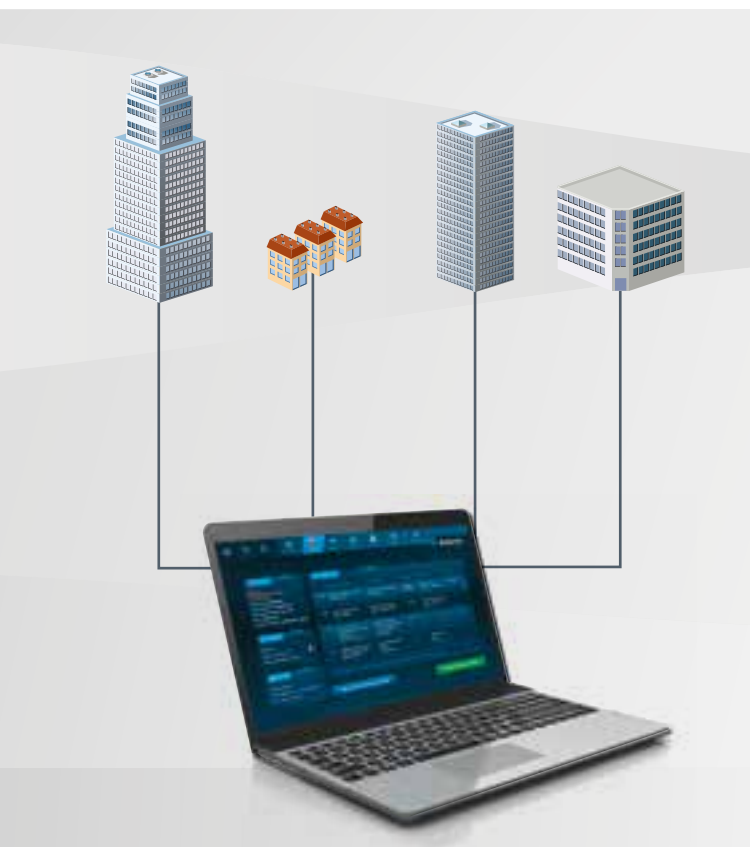


Monitoring / Heating circuit operation

Revolutionary, easy to use touch screen display

Operation is very straightforward, via a 7-inch colour touch screen display, making the control unit as easy, familiar and intuitive as a smartphone or tablet.

The self-explanatory menu display offers a clear selection of all the system components including boiler identification data, heating circuit data, hot water data and outstations. All settings can be made quickly and effectively without losing the overview.



Easy to network with other systems

Thanks to the integrated Modbus interface, connecting the internet-connected control to your building management system is effortless. The connection is made simple, using network connectors. Standard features include an on/off contact, 0-10V input, 0-10V feedback, a potential-free central fault message and an external interlock.

Control 8000 features

- ▶ 7-inch, high definition colour touch screen with HMI technology
- ▶ Intuitive operation
- ▶ Flexible installation options
- ▶ Expandable in the future
- ▶ Manual operation levels for all system components
- ▶ Enhanced cascade control
- ▶ Energy efficiency features
- ▶ Improved module technology
- ▶ 2 multiple-function USB connections
- ▶ Easy installation
- ▶ Straightforward accessibility
- ▶ Holiday mode with selectable setback function
- ▶ IP and Modbus connectivity.

The Modbus interface can also be used to network a Bosch CHP module. The screen on the Control 8000 gives you a comprehensive overview of the building management system and detailed visualisations of the individual components in the system.

The industry's first internet-connected commercial heating control

The Control 8000 internet-connected unit enables you to operate medium and large heating systems easily, efficiently and remotely. The modular structure of the system means it can be tailored to meet your exact requirements, even if you use multiple floor standing boilers and various different fuels. The device is very easy to use – both off and online.

Built for connectivity

Our Control 8000 is supplied complete with sophisticated connectivity to support detailed local and remote monitoring of key settings and events. There are also options to upgrade to more advanced control functions in the future.

The Control 8000 offers the possibility of connecting with higher level controllers right through to bus communication. All functions are accessible through the onboard touch screen, or can be transferred via the internet for viewing on a tablet or PC on a 1:1 scale.

Control 8000 at a glance

Remote access

Users have the ability to control multiple plant rooms anywhere in the world, (with an internet connection), as well as finding any errors in the heating system and carry out fault diagnostics without even being on site.

Easy to use

It's so simple, you don't need to be an heating engineer to control it! Simply control and adjust your heating and timing via an online portal.

High-performance

Control functions for a boiler circuit and a domestic hot water system are standard. If you do not need the boiler circuit, you can have a heating circuit with mixer instead.

Integrated cable routing

The cables can be connected safely and efficiently. The module-specific labels also provide you with an optimum overview during assembly.





Simple system expansion options

You can expand the range of functions with ease to tailor the system to meet your needs. Its modular structure boasts slots for up to four modules.

Touchscreen display

7-inch touchscreen display.

Standard functions

There are three function buttons underneath the touchscreen display which are used for flue gas inspectors to reset the system, control unit and for activating emergency operation.

Modular technology for optimum system integration

The Control 8000 uses modules which are extremely flexible. Installing compatible modules enables the control's range of functions to be expanded specifically to suit your system's exact requirements. Up to four modules can be integrated into the device.

Function module CM

To integrate up to four conventional heat sources:

- ▶ Use any combination of boilers
- ▶ Parallel/series operation taking into account a specific efficiency
- ▶ Ability to integrate a strategic buffer cylinder for an alternative system structure with switch-on/off sensors
- ▶ Load can be limited either according to the outside temperature or according to external contact
- ▶ If required, the sequence of floor standing boilers can be reversed daily according to the outside temperature, the hours run or external contact
- ▶ Up to four function modules per system (equal to 16 heat sources)
- ▶ Communication with floor standing boilers with the Control 8000 via Ethernet interface
- ▶ Communication with EMS heat sources via EMS bus.

Function module SI

Suitable for connecting 5 individual items of external safety equipment to meet BS EN 12828 standards.

- ▶ Ability to connect a minimum and maximum pressure limiter
- ▶ General 4-pole input (can be custom named)
- ▶ Four 2-pole parametrisable inputs (can be custom named)
- ▶ Fault analysis and detection of triggered safety equipment on the control unit or via remote access.

Function module MM

To integrate two heating circuits with or without a mixing valve:

- ▶ Option to connect a remote control
- ▶ Ability to alternatively connect an external day/night switch with optional time limiter
- ▶ Heating circuit can be parametrised as a pre-control circuit via external demand
- ▶ Potential-free input – e.g. for hooking up a pump fault detector
- ▶ Automatic adjustment of the reduced temperature in accordance with BS EN 12831 standards
- ▶ Holiday mode
- ▶ Heating circuit can be controlled manually via the touchscreen display.



CM-Module



SI-Module



MM-Module

Function module MW

Suitable for integrating one heating circuit function and one hot water function. When controlling a heating circuit with or without a mixing valve and heating circuit pump, the range of functions is the same as that of the function module MM. Range of functions when controlling a hot water circuit with a cylinder primary pump and DHW circulation pump includes:

- ▶ Generate DHW with a specific time slot or temporally linked to the heating circuits
- ▶ Generate DHW either as a priority or parallel to the heating circuits
- ▶ Control a DHW circulation pump with interval switching or continuous operation with a specific time slot
- ▶ Optimised DHW charging, using the residual heat of the floor-standing boiler
- ▶ Input for hooking up an external fault detector
- ▶ External input for one-off heating of the DHW outside the specified time windows or for activating thermal disinfection
- ▶ Ability to carry out thermal disinfection daily.

Function module AM

For integrating an alternative heat source, such as a Combined Heat and Power (CHP) module, a gas absorption heat pump, a solid fuel boiler and/or a buffer cylinder:

- ▶ Request an "automatic" alternative heat source via potential-free contact to cover the baseload demand using selectable strategies and/or time programmes
- ▶ Control the boiler circuit of the alternative heat source.



MW-Module



AM-Module



Connect a Bosch CHP module via the Modbus RTU interface

- ▶ Quick, easy and secure integration
- ▶ Request and enable the CHP module via Modbus
- ▶ Display operating messages or warning/fault messages from the CHP module
- ▶ Automatic adjustment of individual parameters.

A cost-effective control option with BMS compatibility

The MX25 controller with clip-in Sense control offers a simple to use and extremely cost-effective solution for heating systems using Bosch Condens 7000 F boilers. Its intelligent control functions enable comprehensive and energy-efficient system management with the added benefit of a 0-10V connection for integration with existing building management systems (BMS).



Easy to use

A stylish and simple-to-use control, with a clear back-lit display and touch-screen buttons, makes setting up and using the control easy. Acting as both a room thermostat and programmer, the factory-set heat curves make commissioning simple. The extensive diagnostic menu includes fault display, error memory and function tests.

Weather compensation control

The weather compensation control enables the boiler to anticipate changes in the heating demand in relation to external temperatures. It comprises of a programmable indoor unit to control the boiler and an external sensor located on a north facing wall.

Room thermostat and programmer combined

Combines the functions of a room thermostat and programmer and incorporates factory-set heat curves, making commissioning very straightforward. The unit also includes a manual override for the user to boost or reduce heating if and when required.

Multiple heating programmes

Seven-day time control for both heating and hot water, with 6 freely adjustable switching points per day. A different programme is possible for each day of the week where one day's routine is not the same as the next.

Service reminder function

Allows the Service Engineer to store a contact telephone number that will be displayed when the boiler is due its annual service.

Integrated solar heating control

Can be used in conjunction with MS100 and MS200 Solar Modules to optimise use of renewable solar energy for hot water. It enables the hot water system to utilise the heat from the panels when the sun is shining, whilst ensuring the boiler provides any additional heat when required.

Solar yield menu

Displays the amount of energy recovered from the solar system and identifies areas where the programmed settings could be changed to improve the value gained. Data can be displayed over the entire length of time since the solar system was commissioned or on a week by week basis.

Function modules

MM100 Mixer Module

The MM100 Mixer Module is used for single heating circuits to monitor the boiler's low loss header.

MC400 Cascade Sequencer Module

The MC400 Cascade Sequencer Module sequences the lead boiler in cascade systems to ensure that all boilers are used equally, prolonging their working life. It interprets the signal from the BMS and modulates the output of the boilers in the most efficient way. One MC400 can control up to four boilers and up to five modules can be linked together to control up to 16 boilers.

MS100 Solar Module

The MS100 Solar Module optimises heating systems using solar energy, either stand alone or in complex solar systems in combination with gas-fired boilers and heat pumps.

MS200 Intelligent Solar Module

The MS200 Intelligent Solar Module is similar to MS100 but is used for the regulation of systems which include DHW such as hot water charging systems or solar pre-heating systems.

MX25 features

- ▶ All variants can be used as room or outside temperature-controlled controllers (via external sensor)
- ▶ Simple operation thanks to a large graphic display, touch buttons and text display
- ▶ Extensive diagnostic menu which displays the heating system, fault display with error memory and function tests
- ▶ Graphical set up and display of solar systems
- ▶ Intelligent control functions for maximum solar yields and intelligent fault diagnostics.



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