smart (Econ) Heat Control
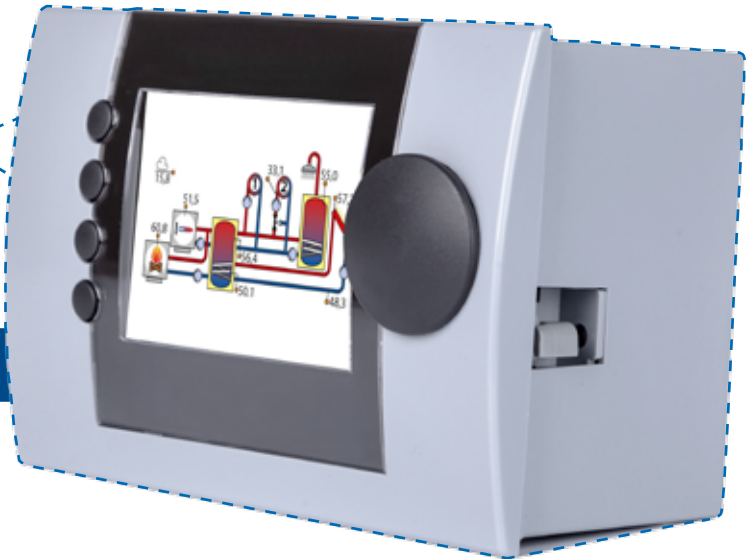
HEATING SYSTEM CONTROLLER FOR HEAT GENERATION AND DISTRIBUTION

System controller for up to 2 heat generators, 3 heating circuits and domestic hot water preparation with integration of solar thermal, solid fuel boiler and/or circulation pump

CUSTOMER BENEFITS

Clear and logical overview of the entire heating system:
- full graphic colour display
- display of current temperatures
- animated icons for heat generator, pumps, mixers and other loads

Customization possible (configuration via emz):
- adaptation of menu structure, user levels, functions and hydraulic schemes

Quick and easy commissioning thanks to preset parameters and selection of preconfigured hydraulic systems

Simple and intuitive operation via symbol-supported plain-text display

Convenient remote access and visualization to the smart Econ Cloud via the integrated Ethernet port:
- reduced travelling expenses thanks to remote servicing
- straightforward access via WiFi to a host of terminals for time-saving plant monitoring
- permanent safety thanks to active error signalling feature

CAN system bus for comfortable and safe extension

System update possible via integrated microUSB interface

Integrated activation of high-efficiency pumps via PWM/0-10V

emz
smart solutions

smart Econ HEAT CONTROL EQUIPMENT LEVELS

Heat Control Family	HCM	HCW 810	HCW 1620	HCB SUD	HCB TUMD	HCB TUMMD
Number of inputs for temperature sensor PT1000	8	8	16	4	7	8
thereof switchable (potential-free or temperature input or pulse counter)	8	8	16	4	7	8
Outside temperature sensor	√	√	√	√	√	√
Boiler sensor	√	√	√	√	√	√
Domestic hot water sensor	√	√	√	√	√	√
Flow sensor	2	2	5	-	1	2
Variable / free sensor inputs	3	3	8	-	3	3
Number of inputs for vortex sensor	1	1	2	-	1	1
Number of analog inputs	2	2	4	2	2	2
Number of relay outputs - make contact, potential-free, max. 3A - for pumps, valves, boiler	3	2	4	1	2	3
Number of relay outputs - make contact, 230V output, not potential-free, max. 3A - for pumps, valves	7	8	16	2	5	7
Energy generator stage 1	√	√	√	√	√	√
Energy generator stage 2 / multifunction output (MFA1)	√	√	√	√	√	√
Unmixed heating circuit / multifunction output (MFA2)	√	√	√	√	√	√
Domestic hot water circuit	√	√	√	√	√	√
Heating circuit with mixing valve and separate pump	2	2	5	-	1	2
Number of outputs PWM / 0-10V switchable	2	2	4	2	2	2
Ethernet port for LAN network	√	√	√	√	√	√
CAN system bus port	√	√	√	√	√	√
Micro USB port for PC connection, configuration update	√	√	√	√	√	√
Full graphic TFT colour display 3.2″, 240x320 pixels	√	√	√	√	√	√
Operation via rotary encoder and 4 buttons	√	√	√	√	√	√
Opentherm as optional supplementary module	√	√	√	√	√	√

Operation and efficiency functions

Energy generator

	HCM	HCW 810	HCW 1620	HCB SUD	HCB TUMD	HCB TUMMD
Adjustable minimum temperature	√	√	√	√	√	√
Adjustable charging temperature for domestic hot water	√	√	√	√	√	√
Adjustable minimum pause time	√	√	√	√	√	√
Counter for starts of energy generator	√	√	√	√	√	√
Boiler cascade via fixed starting integral	√	√	√	√	√	√

Heating circuits and additional functions

	HCM	HCW 810	HCW 1620	HCB SUD	HCB TUMD	HCB TUMMD
8 operating modes adjustable (OFF, automatic, day, night, frost, summer, screed, emission measurement)	√	√	√	√	√	√
Separate operating data recording for each output	√	√	√	√	√	√
Adjustable offset (+/-10K) for each sensor	√	√	√	√	√	√
Heating curve separately adjustable for each heating circuit (4-point definition)	√	√	√	√	√	√
Anti-legionella function	√	√	√	√	√	√
Straightforward solar function	√	√	√	-	√	√
Adjustable data for vacation and public holidays	√	√	√	√	√	√

Protective functions

	HCM	HCW 810	HCW 1620	HCB SUD	HCB TUMD	HCB TUMMD
Room anti-freeze function (min. 1x Roomcontrol necessary)	√	√	√	√	√	√
Outside temperature frost protection	√	√	√	√	√	√

Diagnostic and service functions

	HCM	HCW 810	HCW 1620	HCB SUD	HCB TUMD	HCB TUMMD
Sensor error detection	√	√	√	√	√	√
Sensor calibration (+10/-10K)	√	√	√	√	√	√
Operating hours meter for outputs	√	√	√	√	√	√
List of errors	√	√	√	√	√	√

THE emz HEAT CONTROL IS AVAILABLE IN THE FOLLOWING MODELS:

Heat Control Build-In - HCB

User interface with integrated ports for installation into the boiler control panel

Standard dimensions 144x96x75 mm

Type SUD, TUMD or TUMMD

Heat Control Wall - HCW

User interface in high-quality design for wall-mounting with integrated ports

Dimensions 217x220x59 mm

Type 810

Type 1620 incl. extension module for complex systems

Heat Control Modular - HCM

Modular system consisting of user interface in high-quality design for wall-mounting or installation into the boiler control panel

Dimensions 144x96x35 mm

I/O module in DIN rail housing (top hat rail mounting)
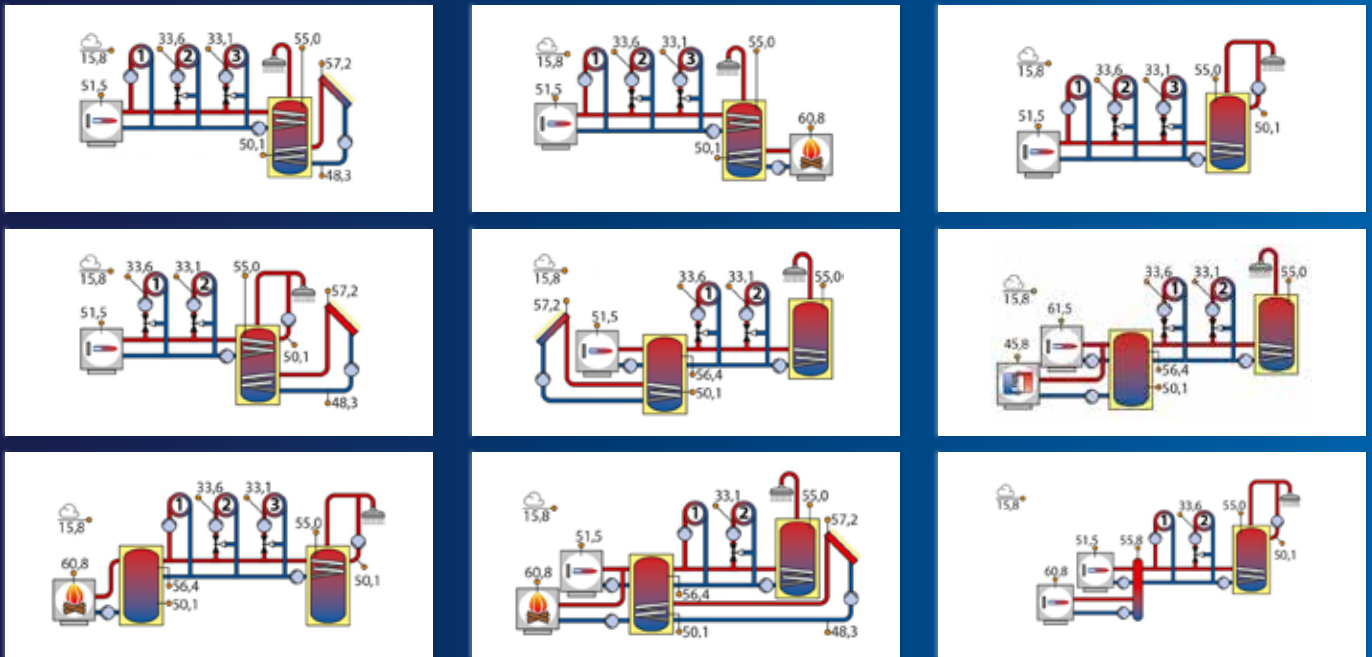
Dimensions 157x86x58 mm

Room Control - RC

Room unit for room temperature measurement and adjustment to temperature setpoint
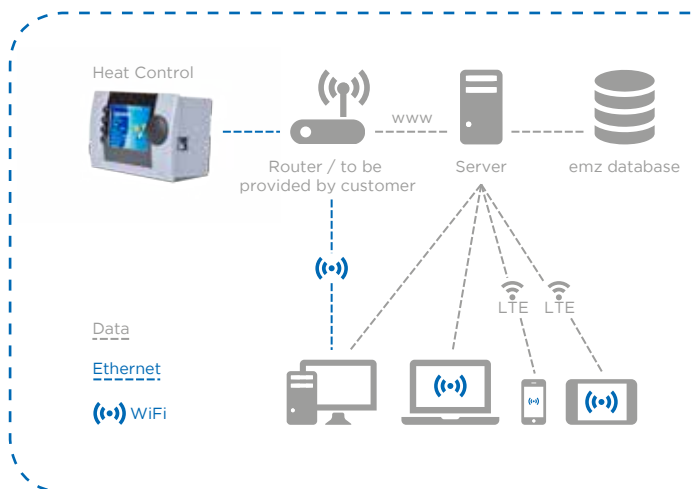
Party and abscense function

smart(E)con Cloud

CONVENIENT REMOTE ACCESS TO
YOUR emz HEAT CONTROL

www.smarteconcloud.com

Heat Control

www

Router / to be
provided by customer

Server

emz database

LTE LTE

Data

Ethernet

((•)) WiFi

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