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Electronic room temperature control

guaranteed well-being

Electronic room temperature control – guaranteed well-being

Energy-saving, comfortable and environmentally friendly - these are the requirements customers place on room temperature control systems. An essential factor for the use of energy saving potential is demand-oriented heating: Lowering the room temperature during absence or ventilation phases or optimal temperature control of the individual premises in the house or apartment. An investment in a modern room temperature control system pays off: every degree of less room temperature brings about 6 % energy savings.

But not only the energy savings and the associated conservation of resources speaks for a modern regulatory system. The optimal room temperature is of crucial importance for the personal feel-good factor. Different temperature zones, from rest-promoting 18 °C in the bedroom to pleasantly warm 24 °C in the bathroom, create a pleasant ambience and ensure the ideal comfort warmth.

HERZ offers a wide range of different components for intelligent room temperature control: from electronic thermostatic heads, wireless window contacts, wall thermostats, energy saving screens and corresponding signal distributors. In addition to the control of space heating modules, several models can be used also for precise control of room cooling.

Advantages

- Modular system
- combinable with other HERZ products
- for control of heating and cooling
- individual adjustment options
- easy handling
- heating costs savings up to 27 %

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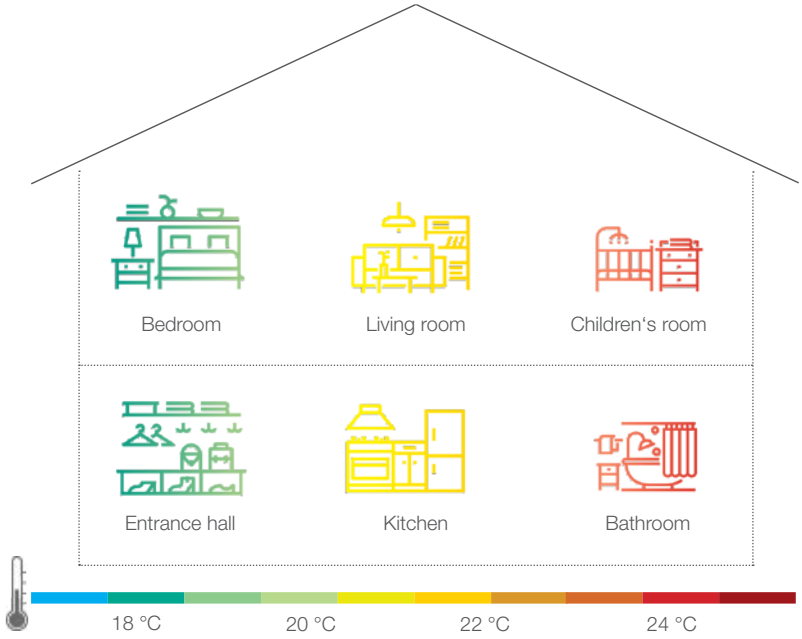
The perfect room temperature

Numerous studies prove that temperatures have a significant impact on physical and mental performance. The optimum temperature range is 20 to 25 degrees Celsius. Within this scale the human body releases its surplus heat at the same rate to its environment as it generates it. This “comfort temperature” faces aspects such as environmental protection and costs. Therefore a middle ground is in demand.

Taking into account physiological, economic and ecological aspects, there are the following temperature recommendations for the private sector:



Appropriate programs of HERZ

- Room temperature regulation and radio receiver 868 MHz with electronical wireless thermostatic heads (for heating systems) — Page 4
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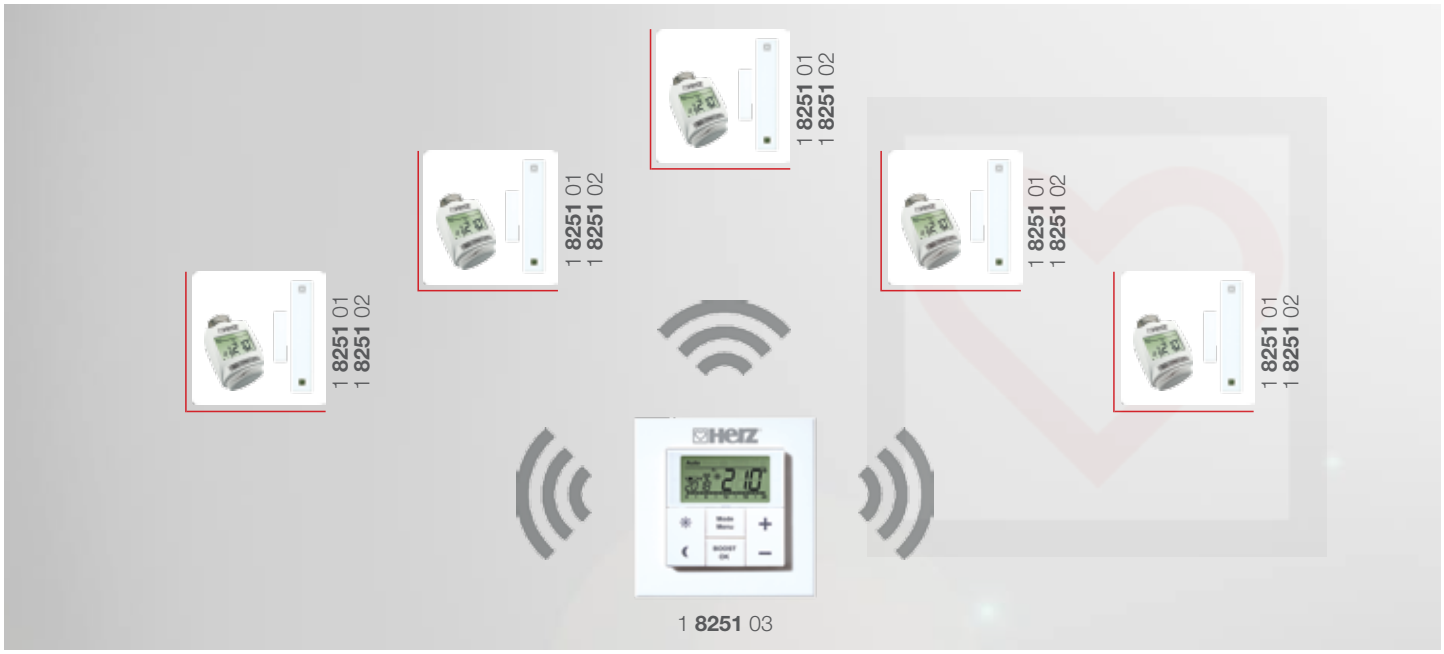
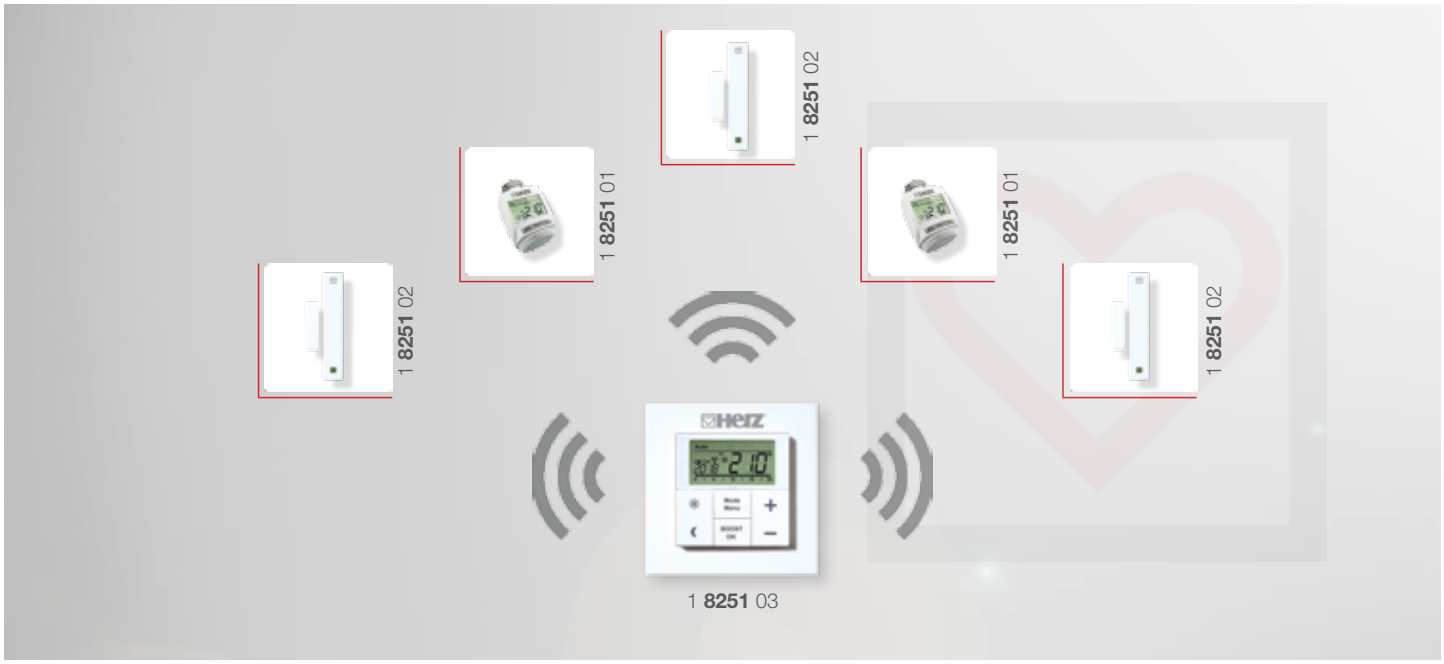
Room temperature regulation & radio receiver 868 MHz with electronical wireless thermostatic heads

☑ **Spatial solution:**
- max. 1 wall thermostat ETKF+
- max. 8 electronic thermostatic heads ETKF+
- max. 8 window contacts ETKF+

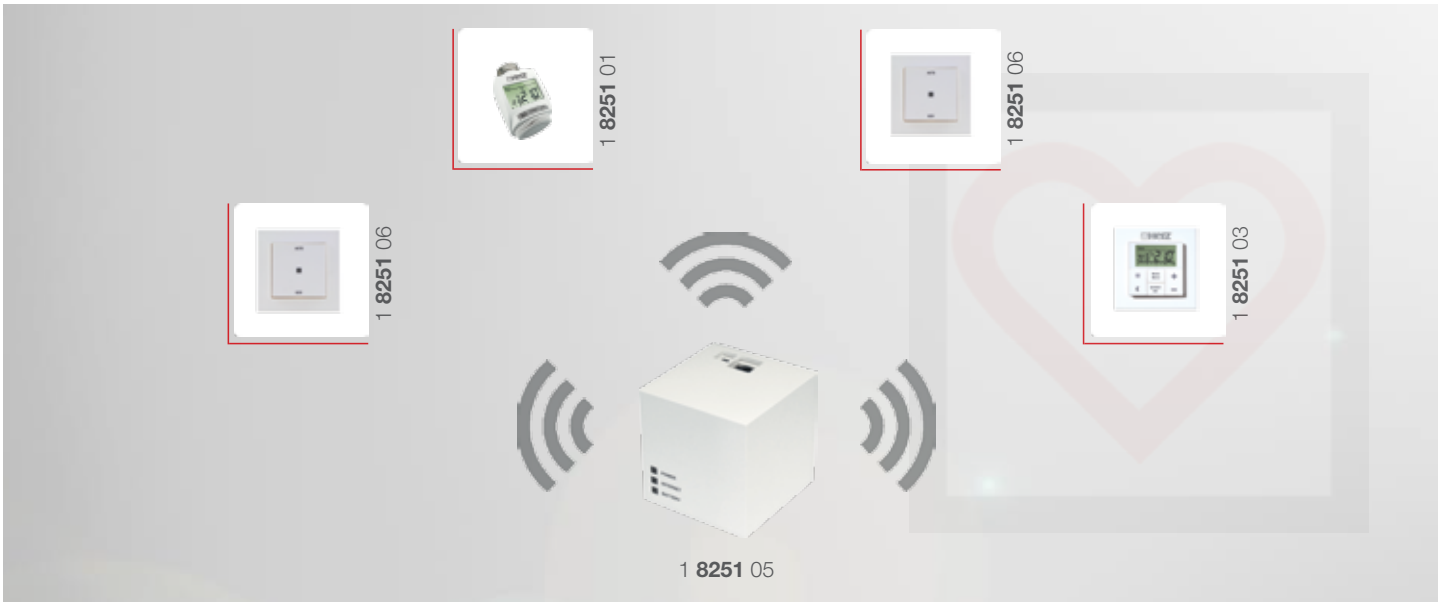


☑ **Spatial solution synchronous:**
- max. 1 wall thermostat ETKF+
- max. 2 electronic thermostatic heads ETKF+
- max. 3 window contacts ETKF+



Room temperature regulation & radio receiver 868 MHz with electronical wireless thermostatic heads

Overall solution



Room temperature regulation & radio receiver 868 MHz with electronical wireless thermostatic heads - products

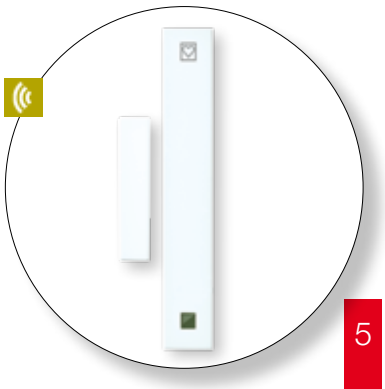
Electronic thermostatic head ETKF+ including radio receiver

The electronic thermostatic head ETKF + for radiators, controls the room temperature based on time and can be supplemented with the wall-thermostat ETKF +. When the room is ventilated the setpoint temperature is automatically reduced. For mounting on all HERZ valves which are set up for thermostatic operation with connection thread M28 x 1.5. With adapters (sold separately) mounting on other valves is also possible.

Setting range:	5 °C to 30 °C
Switching differential:	0.5 K
Operation:	2 x AA, 1.5 V alkaline battery
Order number:	1 **8251** 01

Wireless window contact for electronic thermostatic head

The window contact serves for detecting the opening of a window. If the window contact has been linked to the wireless energy-saving controller, it automatically lowers the temperature in the room during the period of ventilation. Electronic unit and magnet are mountable optionally with adhesive strips or screws



Ambient temperature:	0 °C to 50 °C
Free-field range:	100 m
Dimensions in mm (W x H x D):	18.5 x 103.5 x 24.5 (electronic unit) 12 x 48 x 12 (magnet)
Operation:	2 x AA, 1.5 V alkaline battery
Order number:	1 **8251** 02

Room temperature regulation & radio receiver 868 MHz with electronic wireless thermostatic heads - products

☑ Wireless wall thermostat

Within the system the wall thermostat is responsible for room temperature regulation. With the wall thermostat ETKF + up to 8 electronic thermostatic heads ETKF + can be regulated in one room. The device has an internal sensor that measures the temperature in the room and transmits it cyclically to the thermostatic heads. The wall thermostat can optionally be screwed with the included frame or glued to a wall.

Ambient temperature:	0 °C to 50 °C
Free-field range:	100 m
Dimensions in mm (W x H x D):	86 x 86 x 21.5 (incl. frame)
Operation:	2 x AA, 1.5 V alkaline battery
Order number:	1 **8251** 03

☑ LAN gateway to ETKF+ via internet and mobile network

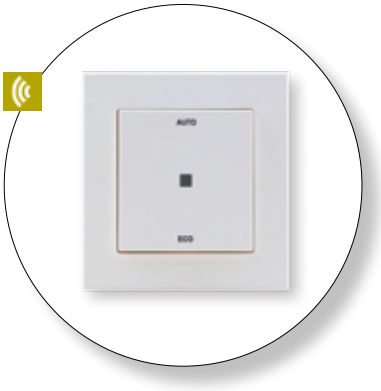
For remote control of the ETKF+ components via smartphone apps. 50 devices controllable in max. 10 rooms.

Connection:	RJ-45 (Ethernet)
Free-field range:	100 m
Operation:	230 V-USB-Powered
Order number:	1 **8251** 05

☑ Wireless ECO Sensor+

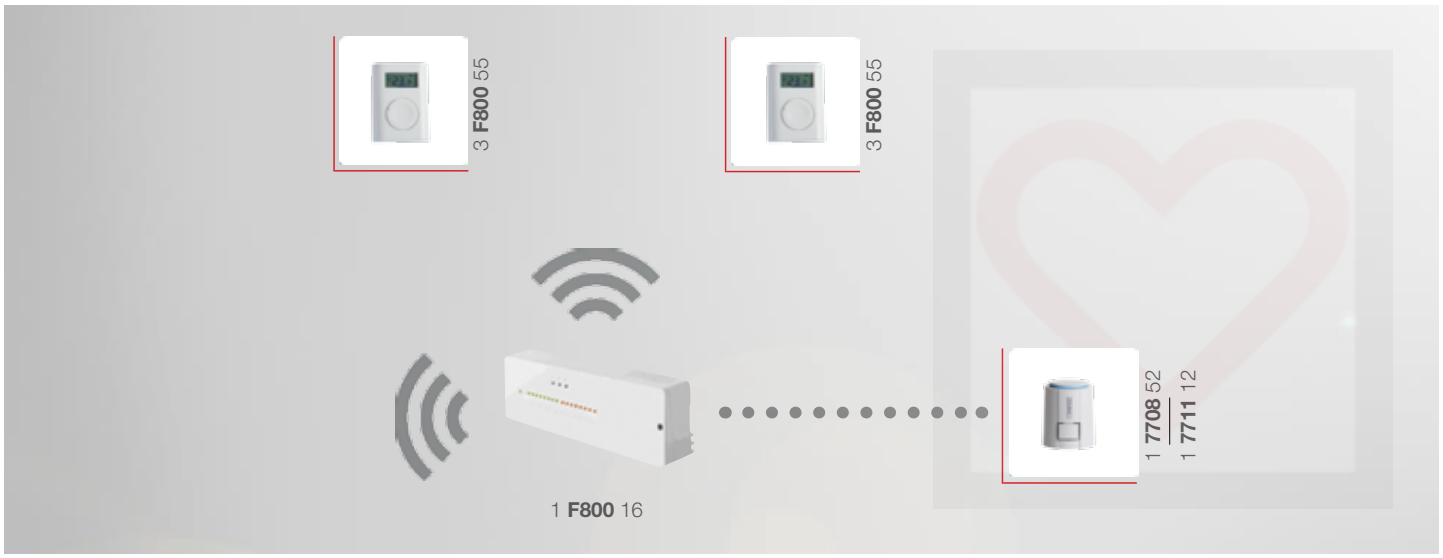
Energy-saving sensor for lowering the configured comfortable temperature upon leaving of the home. When coming home, all rooms can be set to auto mode by pushing a button. The individually set weekly programs are then executed again. The device can be mounted by means of screws or gluing.

Ambient temperature:	0 °C to 50 °C
Free-field range:	100 m
Dimensions in mm (W x H x D):	86 x 86 x 21.5 (incl. frame)
Operating:	2 x AA, 1.5 V alkaline battery
Order number:	1 **8251** 06



Room temperature regulation and radio receiver 868 MHz with electronic wireless distributor

Wireless solution



Room temperature regulation and radio receiver 868 MHz with electronic wireless distributor - products

Wireless thermostat TP155 with 7 day program

The TP-155 is a wireless indoor thermostat with a programmable week program. The adaptive device detects the heating behavior of a room and configures the settings Multiple heating circuits can be assigned

Setting range:	6 °C to 40 °C
Free-field range:	100 m
Dimensions in mm (W x H x D):	66 x 90 x 22
Operation:	2 x AA, 1.5 V alkaline battery
Order number:	3 **F800** 55

Wireless thermostat TP15

The room thermostat TP150 automatically maintains – in 24 hour intervals – the temperature at the configured setpoint. The control can be locked against unwanted manipulation. Multiple heating circuits can be assigned.

Setting range:	6 °C bis 40 °C
Free-field range:	100 m
Dimensions in mm (W x H x D):	65 x 88 x 20
Operation:	2 x AA, 1.5 V alkaline battery
Order number:	3 **F800** 55

Room temperature regulation and radio receiver 868 MHz with electronic wireless distributor - products

Radio receiver

Radio receiver for controlling the thermal actuators of panel heating systems with up to 16 heating circuits. One thermal actuator can be connected per heating circuit. A boiler pump controller can be integrated with another installed relay.

Setting range:	6 °C to 40 °C
Free-field range:	100 m
Dimensions in mm (W x H x D):	400 x 100 x 60
Operating voltage:	230 V / AC
Order number:	3 **F800** 16

From practise - for practise

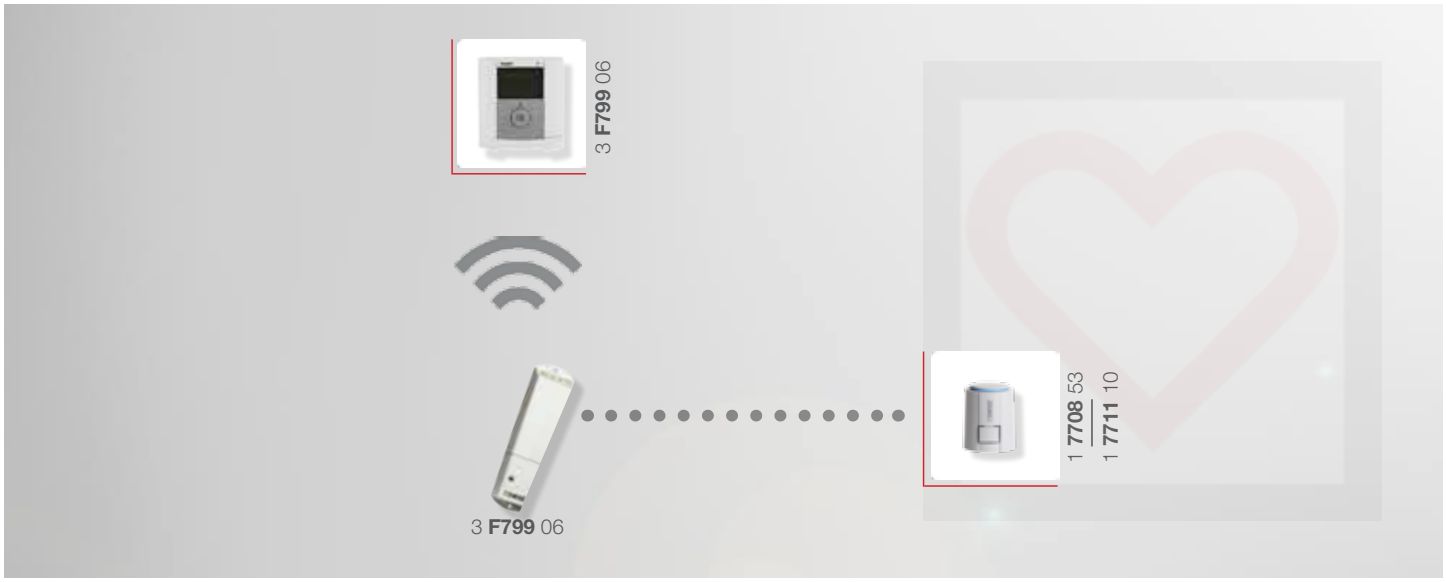
Herz ACADEMY

- Comprehensive range of topics
- Individually adapted to the participants
- Theoretical lectures
- Practical training (laboratory exercises)
- Reference site visits
- Factory visit

Your sales representative will be glad to inform you about all planned dates. We will also organize individual trainings for groups or companies.

Digital room temperature regulation & radio receiver 868 MHz with electronical wireless transmitter up to 10 A

☑ **Wireless solution for digital system**



Digital room temperature regulation & radio receiver 868 MHz with electronical wireless transmitter up to 10 A - products

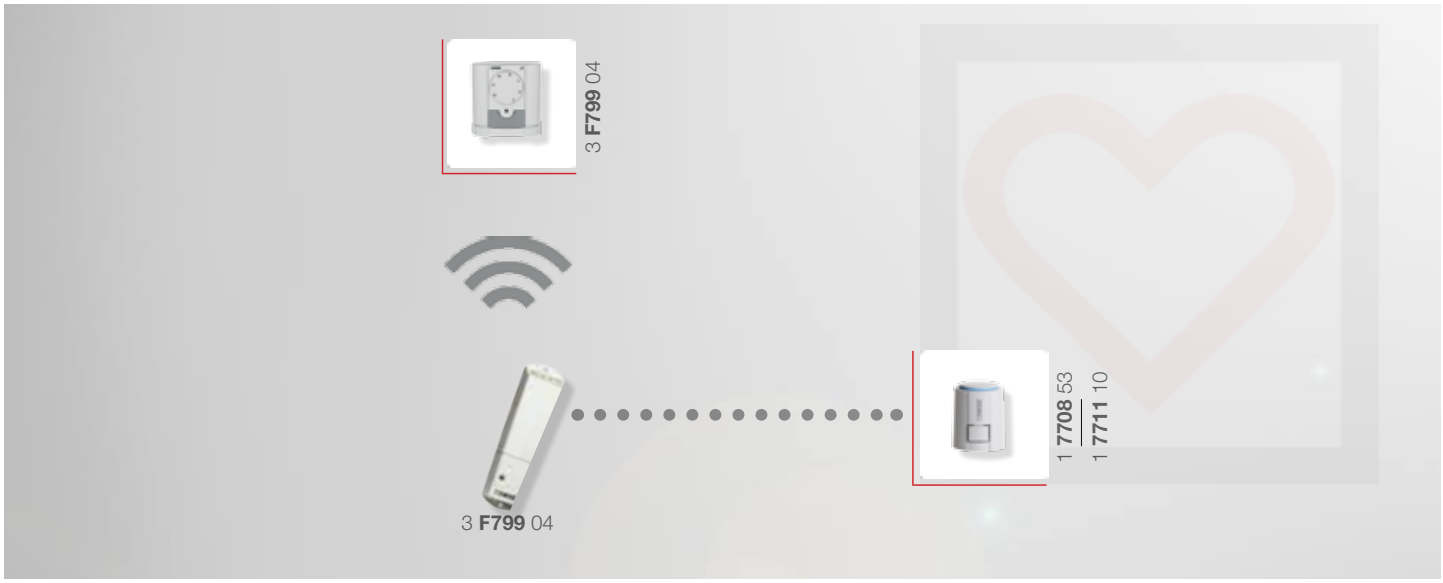
☑ **Digital wireless control system with 7 day timer**

Room temperature controller (transmitter) with digital display of the room temperature and operating mode and receiver with coded transmission signal. The device has a timer for weekly programme, a switch with three positions for heating – night set back – OFF and a LED operating display on the receiver for heating – operating mode – signal reception.

Setting range:	5 °C to 37 °C
Switching difference:	0.1 K
Free-field range:	100 m
Dimensions in mm (W x H x D):	83 x 80 x 27 (transmitter) 50 x 170 x 28 (reciever)
Operations:	3 x 1.5 V AAA LR03 alkaline battery (transmitter) with 230 V (receiver)
Mounting:	Wall mounting or free deployment (enclosed stand)
Order number:	3 **F799** 06

Analogue room temperature regulation & radio receiver 868 MHz with electronical wireless transmitter up to 10 A

☑ **Wireless solution for analogue system**



Analogue room temperature regulation & radio receiver 868 MHz with electronical wireless transmitter up to 10 A - products

☑ **Analogue wireless control system**

The system includes a radio room thermostat for individual room control as well as a radio receiver. The thermostat is used to control electrical heating systems.

Setting range:	5 °C to 35 °C
Switching difference:	0.5 K
Free-field range:	100 m
Dimensions in mm (W x H x D):	83 x 80 x 27 (transmitter) 50 x 170 x 28 (receiver)
Operation:	2 x 1.5 V AAA alkaline battery (transmitter) with 230 V (receiver)
Mounting:	Wall mounting or free deployment (enclosed stand)
Order number:	3 **F799** 04

Electronic thermostatic head without radio receiver

☑ Electronic thermostatic head ETK

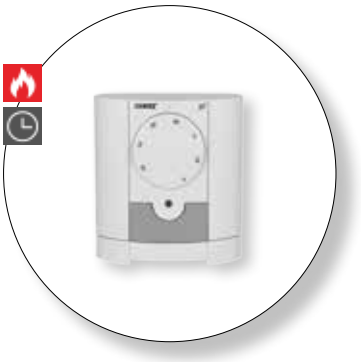
The thermostatic head ETK controls the room temperature based on time. The desired temperature can be set by pre-programmed or individual heating and lowering phases. The radiator thermostat fits on all common M28 radiator valves and is easy to install - draining of heating water or an intervention in the heating system is not necessary. An additional boost function allows fast, short-term heating of the radiator through short-term opening of the valve.

Setting range:	5 °C to 30 °C
Switching difference:	0.5 K
Dimensions in mm (W x H x D):	54.4 x 59.9 x 85.1
Operating:	2 x 1.5 V AA alkaline battery
Order number:	1 **8250** 10

Electronic room temperature controller for 2-point-control with timer

☑ Digital clock thermostat with 7 day programme

With the digital room thermostat an individual weekly programme can be put together in a 7-day rhythm by combining 5 fixed and 4 variable programs. The device is used to control electrical heating systems.



Setting range:	5 °C to 37 °C
Switching difference:	PWM 2 K/10 min. or Hysteresis 0.5 K
Dimensions in mm (W x H x D):	83 x 80 x 27
Operating:	2 x 1.5 V AAA alkaline battery
Switching contact:	Potential free, 3A (230 VAC)
Order number:	1 **7795** 01

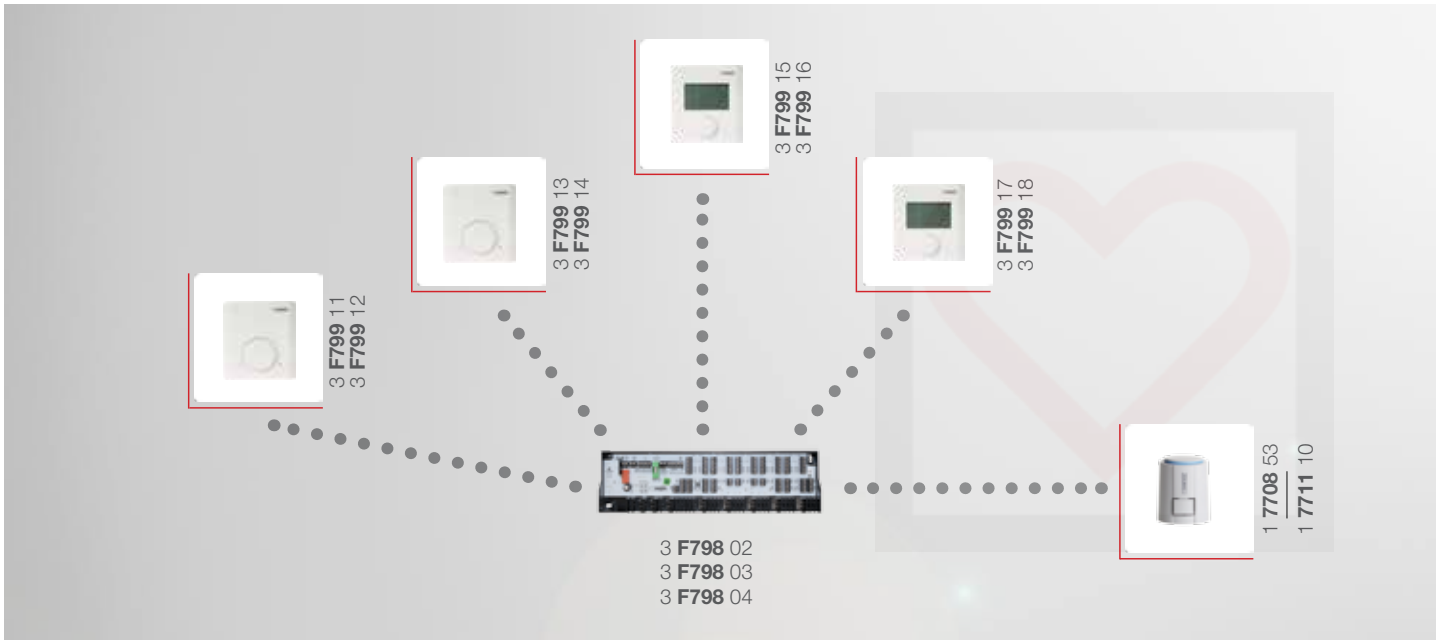
☑ Clock thermostat with analogue timer

Timer with 7 day programme and setting range for day and night temperature. 24 hours temperature settings can be defined in 15 minutes intervals.

Einstellbereich:	5 °C to 35 °C
Regelcharakteristik:	PWM 2 K with 10 min.-cycle
Abmessungen in mm (B x H x T):	135 x 98 x 37
Betrieb:	2 x 1.5 V AA alkaline battery
Artikelnummer:	1 **7795** 02

Electronic room thermostats – concept solution

Spatial solution



Electronic room thermostats – products

Electronic room thermostat

Room thermostat for heating and lowering with frost protection function. For installation on the wall or flush box.

Setting range:	10 °C to 28 °C
Switching difference:	0.5 K
Lowering:	2 K
Order number 230 V / AC:	3 **F799** 11
Order number 24 V / AC:	3 **F799** 12

Electronic room thermostat including cooling

Room thermostat for heating as well as cooling, with setback function, frost and valve protection function and cooling block. For installation on the wall or flush box.

Setting range:	10 °C to 28 °C
Switching difference:	0.5 K
Lowering:	2 K
Order number 230 V / AC:	3 **F799** 13
Order number 24 V / AC:	3 **F799** 14

Electronic room thermostats – products

☑ Electronic room thermostat

Room thermostat for heating and setback with frost protection function. For installation on the wall or flush box.

Setting range:	5 °C to 30 °C
Switching difference:	0.2 K
Lowering:	2 K or adjustable
Order number 230 V / AC:	3 **F799** 15
Order number 24 V / AC:	3 **F799** 16

☑ Electronic room thermostat including cooling

Room thermostat for heating as well as cooling, with setback function, frost and valve protection function and cooling block. For installation on the wall or flush box.

Setting range:	5 °C to 30 °C
Switching difference:	0.2 K
Lowering:	2 K or adjustable
Order number 230 V / AC:	3 **F799** 17
Order number 24 V / AC:	3 **F799** 18

Electronic room thermostat for fan coil

☑ HERZ Comfort climate controller

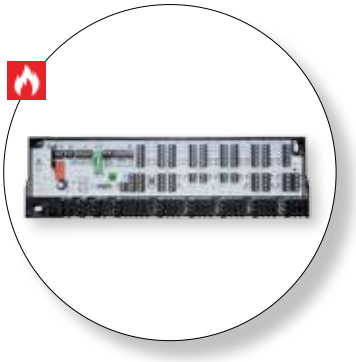
The electronic thermostat is a special version especially for 4-wire air conditioning units. Two outputs automatically control two separate valves for heating and cooling operation. The device has an ON / OFF switch and a 3-speed speed change-over to control fan speed. Temperature control is via an internal temperature sensor.

Setting range:	5 °C to 35 °C
Switching difference:	0.6 K
Dimension in mm (W x H x D):	125 x 75 x 41
Operating voltage:	230 V / AC
Order number:	1 **7795** 05

Electrical distributor

☑ Electrical distributor

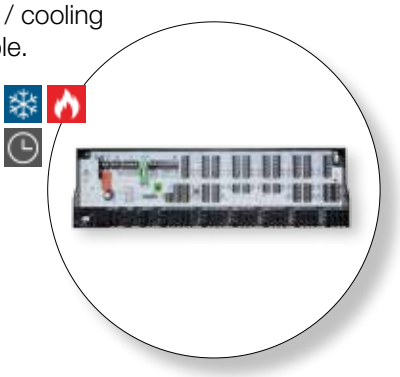
For central distribution of power supply and forwarding of the control signals of the programmable room thermostat to the thermal drives. The area of application includes the regulation of surface heating systems for a maximum 6 zones. Inputs for setback are available. For wall mounting or fixation on DIN rail suitable.



Amount of zones:	6
Amount of actuators:	15 pieces
Time channels/lowering:	2 inputs
Dimension in mm (W x H x D):	327 x 90 x 52
Operating voltage:	230 V AC / 24 C AC
Order number:	3 **F798** 02

☑ Electrical distributor incl. cooling

For central distribution of power supply and forwarding of the control signals of the programmable room thermostat to the thermal drives. The field of application covers the regulation of surface heating and surface cooling systems for a maximum of 10 zones. Inputs for pump control, setback (central and individual), change over heating / cooling (central and individual) as well as temperature limitation or dew point monitoring are available.
For wall mounting or fixation on DIN rail suitable.



Amount of zones:	10
Amount of actuators:	18 pieces
Time channels/lowering:	2 inputs
Dimension in mm (W x H x D):	327 x 90 x 52
Operating voltage:	230 V AC / 24 C AC
Order number 230 V / AC:	3 **F798** 03
Order number 24 V / AC:	3 **F798** 04

* In combination with M 30 x 1.5 valves, adapter 1 **7708** 86 or 1 **7708** 98 must be ordered separately. | ** Also available as M 30 version.

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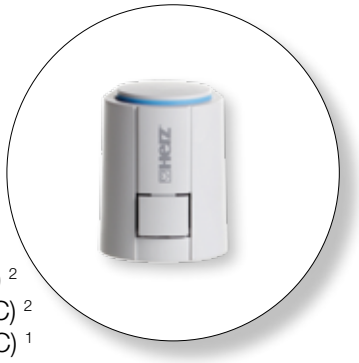
Actuators for 2-point control

☑ HERZ actuating drive for 2-point control for floor heating circuit distributors and valves – without limit switch

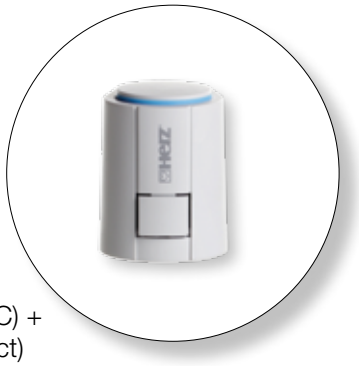
Thermo-electric actuator for opening and closing small valves and valves on heating circuit distributors of surface heating and cooling systems. Main application area is energy-efficient individual room control in the field of building services and building automation. The control of the HERZ drive 230 V / 24 V is provided by a 230 V / 24 V room thermostat with 2-point output or pulse width modulation.



Connection:	M 28 x 1.5 *	M 28 x 1.5 **
Stroke:	5 mm	4,5 mm
Closing force:	100 N	110 N [1], 115 N [2]
Dimensions in mm (W x H x D):	48.4 x 44.3 x 52.2	66 x 44 x 61
Order number:	1 **7708** 52 (NC, 24 V / AC) 1 **7708** 53 (NC, 230 V / AC) 1 **7708** 24 (NO, 230 V / AC)	1 **7711** 12 (NC, 24 V / AC) [2] 1 **7711** 10 (NC, 230 V / AC) [2] 1 **7711** 11 (NO, 230 V / AC) [1] 1 **7711** 13 (NO, 24 V / AC / DC) [1]

☑ HERZ actuating drive for 2-point control for floor heating circuit distributors and valves – with limit switch

Thermoelectric actuator for opening and closing small valves and valves which are used in heating, ventilation and air conditioning. The integrated micro switch with potential-free contact allows to switch a pump or fan control directly. The HERZ drive 230 V with limit switch is controlled by a 230 V room thermostat with 2-point output or pulse width modulation.



Connection:	M 28 x 1.5 *	M 28 x 1.5 **
Stroke:	5 mm	4,5 mm
Closing force:	100 N	115 N
Dimensions in mm (W x H x D):	56 x 44.3 x 52.2	66 x 44 x 61
Order number:	1 **7708** 87 (NC, 230 V / AC)	1 **7711** 10 (NC, 230 V / AC) + 1 **7711** 24 (auxiliary contact)

Actuators for continuous control

☑ HERZ actuating drive for 2-point control for floor heating circuit distributors and valves – with limit switch

Thermo-electric actuator for continuous control of heating and cooling systems in direct proportion to the applied control voltage. The actuators are controlled by a 0-10 V DC signal via a central DDC system or a room temperature controller. In variant 1 **7990** 32 with valve path recognition, the valve path is also automatically detected for optimum use of the active control voltage range.

Connection:	M 28 x 1.5
Operating voltage:	24 V / AC
Dimensions in mm (W x H x D):	63.5 x 44.1 x 61.8 [A] | 66 x 44 x 61 [B]
Order number:	1 **7990** 31 (NC, 5 mm Hub, 100 N closing force) */A 1 **7990** 32 (NC, 6,5 mm Hub, 125 N closing force, incl. valve path recognition) */A 1 **7711** 12 (NC, 4,5 mm Hub, 115 N closing force) + 1 **7711** 25 (connector) **/B

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W180424 Elektr. Raumtemperaturregelung EN 052019