RESOL®
CONTROL TECHNOLOGY

rosenthal design ⓡ

VBus.net **RPT** **VBus®Apps** **HE pump control**

DeltaTherm® HC

The *DeltaTherm®* HC can control a weather-compensated heating circuit, the DHW loading and the backup heating demand for both.

With up to five extension modules, further heating circuits, additional DHW functions such as circulation or thermal disinfection, and the efficient implementation of further heat sources can be controlled.

Due to the flexible application and extension possibilities, the heating controller is also ideal for larger objects such as apartment houses, residential homes and industrial buildings.
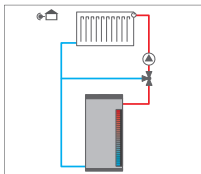
VIII   Temperature controls class VIII
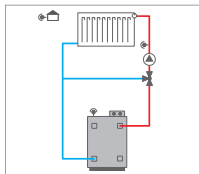
Heat upon request!

- 9 pre-configured basic systems and numerous pre-programmed optional functions

- 30 pre-programmed schemes for the temperature controls classes II, III, V, VI, VII and VIII

- Up to 5 EM extension modules can be connected via the RESOL VBus® (39 sensors and 30 relays in total), up to 6 weather-compensated heating circuits

- 2 inputs for digital Grundfos Direct Sensors™

- Screed drying function

- Data logging, storing, easy transfer of controller adjustments prepared and firmware updates via SD card

- Modulating heating control with 0-10 V boiler control

- Weather-compensated control with room influence or demand-based room control with up to 5 room temperature sensors

- Remote access with a room control unit or the VBus®Touch HC App

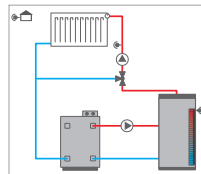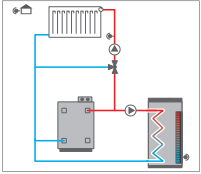| Article no.	Article	Price bracket
115 002 53	*DeltaTherm®* HC – Heating controller	A
115 002 63	*DeltaTherm®* HC – Full kit » incl. 5 Pt1000 sensors (1 x FAP13, 1 x FKP23, 3 x FRP6)	A
115 005 73	*DeltaTherm®* HC – ErP 6 kit » incl. 1 x FAP13, 1 x RCP12, 1 x FKP23, 1 x FRP6	A
115 005 83	*DeltaTherm®* HC – ErP 8 kit » incl. 1 x FKP23, 1 x FRP6, 1 x RCP12, 2 x FRP12	A

EXAMPLES

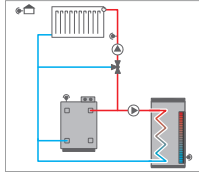1 mixed heating circuit with external heat source

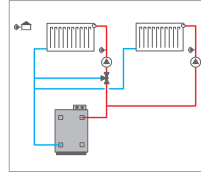1 mixed heating circuit with backup heating (demand)

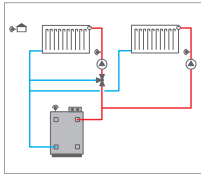1 mixed heating circuit with backup heating (demand and boilder loading pump)

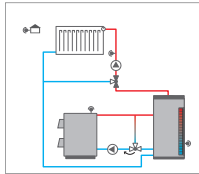1 mixed heating circuit with DHW heating

1 mixed heating circuit with DHW heating and backup heating (demand for heating circuit and DHW)
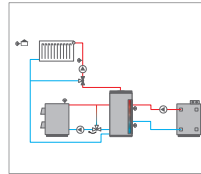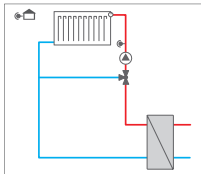
1 mixed and one unmixed heating circuit

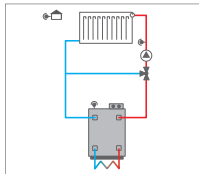1 mixed and one unmixed heating circuit with backup heating (demand)
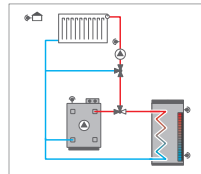
1 mixed heating circuit with solid fuel boiler

1 mixed heating circuit with solid fuel boiler and backup heating (demand)

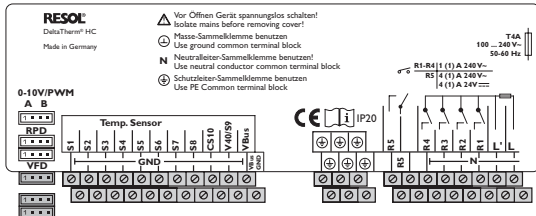1 mixed heating circuit with external heat source (e.g. district heating)

1 mixed heating circuit with external heat source (e.g. heat pump)

1 mixed heating circuit with DHW heating (3-port valve)

ELECTRICAL CONNECTION

RESOL
DeltaTherm® HC
Made in Germany

Vor Öffnen Gerät spannungslos schalten!
Isolate mains before removing cover!
Masse-Sammelklemme benutzen!
Use ground common terminal block
Neutralleiter-Sammelklemme benutzen!
Use neutral conductor common terminal block
Schutzleiter-Sammelklemme benutzen!
Use PE Common terminal block

T4A
100 ... 240 V~
50-60 Hz

R1-R4 1 (1) A 240 V~
R5 4 (1) A 240 V~
4 (1) A 24 V⎓

0-10V/PWM
A   B
RPD
VFD

Temp. Sensor
S1 S2 S3 S4 S5 S6 S7 S8 CS10 V40/S9 VBus
GND

CE IP20

R5 R4 R3 R2 R1 L' L
N

TECHNICAL DATA

Inputs: 8 (9) inputs for Pt500, Pt1000 or KTY temperature sensors, 1 V40 impulse input, inputs for 2 digital Grundfos Direct Sensors™*, 1 input for a CS10 irradiation sensor

Outputs:
4 semiconductor relays, 1 potential-free relay, 2 PWM outputs

PWM frequency: 512 Hz

PWM voltage: 10.5 V

Switching capacity:
1 (1) A 240 V~ (semiconductor relay)
4 (1) A 24 V⎓/240 V~ (potential-free relay)

Total switching capacity: 4 A 240 V~

Power supply: 100−240 V~ (50−60 Hz)

Supply connection: type X attachment

Standby: 0.94 W

Temperature controls class: VIII

Energy efficiency contribution: 5 %

Mode of operation: type 1.B.C.Y action

Rated impulse voltage: 2.5 kV

Data interface: RESOL VBus®, SD card slot

VBus® current supply: 60 mA

Functions: screed drying, weather-compensated heating circuit control, backup heating, DHW heating with priority logic, circulation, thermal disinfection, heat quantity measurement, optional functions such as solid fuel boiler, return preheating, etc.

Housing: plastic, PC-ABS and PMMA

Mounting: wall mounting, mounting into patch panels is possible

Indication / Display: full graphic display, operating control LED (directional pad) and background illumination

Operation: 7 buttons

Ingress protection: IP 20 / EN 60529

Protection class: I

Ambient temperature: 0 ... 50 °C

Degree of pollution: 2

Dimensions: 198 x 170 x 43 mm

* For the digital inputs, the following sensor combinations are possible:
- 1 x RPD, 1 x VFD
- 2 x VFD, but with different measuring ranges only

ACCESSORIES   A 0-10 V adapter cable and an SD card are included with the controller.

KM2 Communication module
Incl. service CD, network cable and mains adapter, VBus® cable pre-connected

EM Extension module
Sensor and relay Extension module with 5 outputs and 6 inputs

RCP12
Room control unit

FRP12 Indoor temperature sensor
Used for measuring the indoor temperature with a Pt1000 measuring element

Wireless room control unit and accessories
Used to measure and adjust the room temperature

SV6
Sensor distribution box