



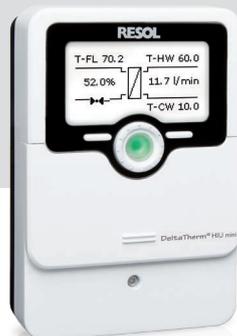
## Heat transfer

RESOL offers a range of solutions for the control of OEM heat interface units and district heating stations. The controller platforms can be adapted to specific customer requirements, making them the ideal solution for manufacturers of heat transfer stations.



### DeltaTherm® HT

Offers a compact and user-friendly solution for simple heating systems and weather-compensated control with room influence or demand-based room control with 1 room temperature sensor.



### DeltaTherm® HIU mini

For heating circuit control as well as for DHW heating. Its compact design makes it ideal for the integration into heat interface units.



### DeltaTherm® HIU

For heating circuit control as well as for DHW heating. Due to the large number of inputs and outputs additional functions can be activated.



### DeltaTherm® DH

District heating stations require a complex control for complying with limit values on the primary side. Our controller concept enables adaptation to the individual requirements.

We develop the perfect controller for your station  
– according to your needs and requirements!  
We are your reliable OEM partner, contact us.



- Flexible controller platforms with individual adaptation possibilities
- Weather-compensated control or demand-based room control
- DHW with standby function (DeltaTherm® HIU / HIU mini)
- Constantly high control quality by adaptation to the end user system by means of self-learning neural networks (DeltaTherm® HIU / HIU mini)
- Adaptable to many commonly used flow rate sensors
- Control of PWM pumps and valves
- Control of a stepper motor (DeltaTherm® HIU mini)
- Connection to a building management system possible

# Overview of controllers for heat interface units

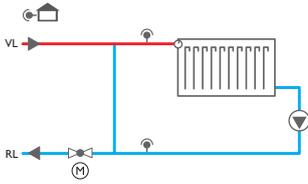
OEM versions available also for small-batch series



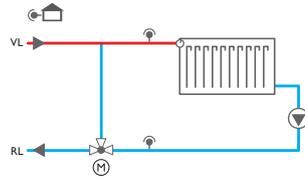
DeltaTherm®	HT	HIU mini	HIU
Temperature sensor inputs	4	6	10
Sensor type	Pt1000 (1 of them convertible to switch)	Pt1000 (convertible to switch)	Pt1000 (convertible to switch)
Flow rate sensor inputs	-	1	3
Sensor type	-	1 frequency input 0-500 Hz / Grundfos Direct Sensor™ analogue (depending on the product version)	2 Grundfos Direct Sensors™ analogue, 1 frequency input 0-500 Hz
Semiconductor relays	3	2	4 / 4 electromechanical relays (depending on the product version)
Potential-free extra-low voltage relays	1	-	-
Potential-free relays	-	1	-
PWM / 0-10V outputs	1/1	3 (2 of them convertible to 0-10 V)	4 (convertible to 0-10 V)
Further outputs	-	2 x 24V <sup>==</sup> / 5.5 W / 2 x 12V <sup>==</sup> (depending on the product version)	2 x 24V <sup>==</sup>
Data interfaces	VBus®, MicroSD card slot	2 x VBus®, MicroSD card slot	2 x VBus®, SD card slot
Mixed heating circuits	✓	✓	✓
Weather-compensated	✓	✓	✓
Room control	✓	✓	✓
Room thermostats	✓	✓	✓
Night correction	✓	✓	✓
Summer operation	✓	✓	✓
Antifreeze	✓	✓	✓
Chimney sweeper	✓	✓	✓
Screed drying	✓	✓	✓
Remote access with RCP12	✓	✓	✓
Room control unit RTS	-	✓	✓
Central outdoor sensor unit	✓	✓	✓
DHW with standby function	-	✓	✓
Constantly high control quality by means of self-learning neural networks	-	✓	✓
Customised control for systems with or without circulation	-	✓	✓
Flexible circulation function, also available with thermal disinfection	-	✓	✓
Reliable DHW heating even in the case of a fault condition	-	✓	✓
Adaptable to many commonly used flow rate sensors	-	✓	✓
Numerous check measurements run by our laboratories	-	✓	✓
Fine-tuning of the control algorithm to customer requirements	-	✓	✓

# Examples

## DeltaTherm® HT



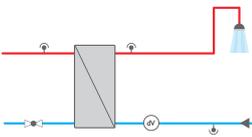
Basic system



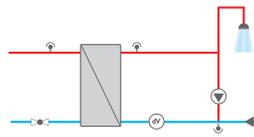
Basic system with mixer

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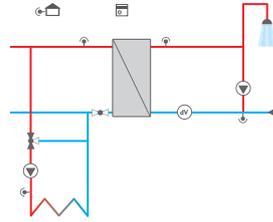
## DeltaTherm® HIU / HIU mini



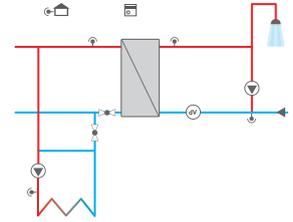
DHW heating without heating circuit



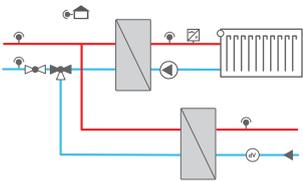
DHW heating with circulation



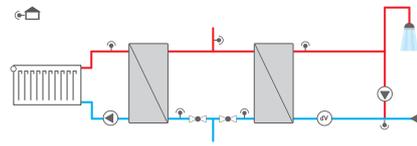
DHW heating with mixed heating circuit and room thermostat



DHW heating with unmixed heating circuit and room thermostat



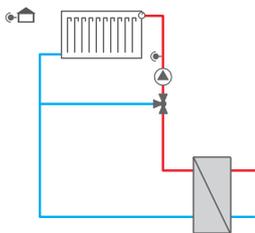
Indirectly connected heating circuit with DHW heating switchover



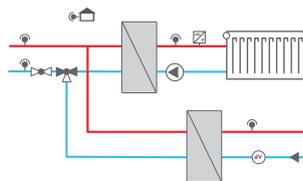
Indirectly connected heating circuit with DHW heating switchover

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## DeltaTherm® DH



1 mixed heating circuit with external heat source (district heating)

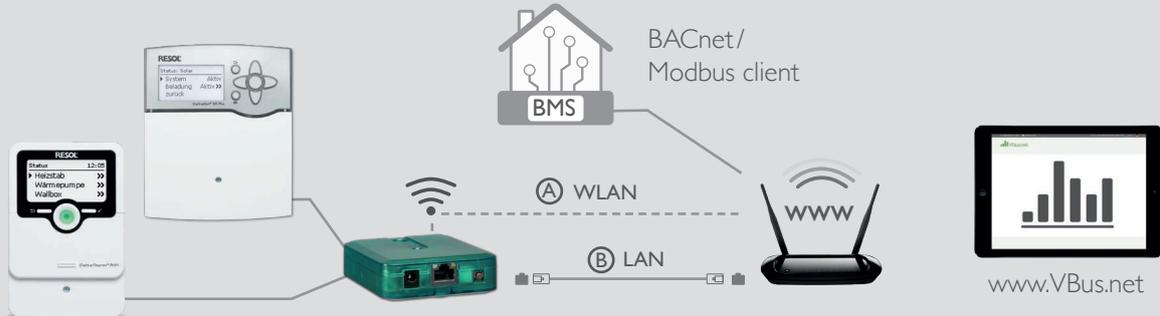


Indirectly connected heating circuit with DHW heating switchover

# DL2 Plus Datalogger – Internet access to the system data via VBus.net



- Connection to a building management system via BACnet/IP or Modbus/TCP
- Comfortable system parameterisation via the RESOL RPT Parameterisation Tool possible
- 2 controllers can be connected
- Internal memory for data logging
- Automatic firmware updates via Internet
- Suitable for all RESOL controllers with VBus®
- WLAN functionality



## Overview of accessories

	DeltaTherm®	HT	HIU	HIU mini	DH
 AM1 Alarm module Price bracket B   Article no.: 180 008 70		✓	✓	✓	✓
 KM2 Price bracket A   Article no.: 180 012 10		✓	✓	✓	✓
 DL2 Plus Datalogger Price bracket A   Article no.: 180 009 70		✓	✓	✓	✓
 RCP12 Remote control Price bracket A   Article no.: 136 000 50		✓	✓	✓	-
 RTA12 Remote control Price bracket A   Article no.: 136 000 40		✓	✓	✓	-
 RTS Remote control Price bracket A   Article no.: 136 001 50		-	✓	✓	-
 Central outdoor sensor unit Price bracket A   Article no.: 112 127 96		✓	✓	✓	✓
 SP10 Price bracket A   Article no.: 180 110 70		✓	✓	✓	✓
 FAP13 Price bracket A   Article no.: 155 008 10		✓	✓	✓	✓
 VBus® / USB interface adapter Price bracket A   Article no.: 180 008 50		-	✓	✓	✓
 VBus® / CANopen interface adapter Price bracket A   Article no.: 180 012 60		-	✓	✓	✓