

Pure biomass or combined system?
We have the right controller to meet your system requirements!

RESOL offers solutions for different kinds of heating and energy systems, from small water heating stoves up to large multivalent systems.

DeltaSol® / DeltaTherm®	Biomass / SFB	Solar thermal	Heating circuit(s)	Electric immersion heaters	Heat pump demand / control	Optional functions
FK	✓	x	x	x	✓	x
CS Plus, SLL, SL, BX	✓	✓	x	x	✓	x
SLT	✓ + Ret. mixer*	✓	x	x	✓	✓
BX Plus	✓ + Ret. mixer	✓	✓	x	✓	✓
HC	✓	x	✓	x	✓	✓
HC MAX, HC Plus	✓ + Ret. mixer	x	✓	x	✓	✓
MX, MX Plus	✓ + Ret. mixer	✓	✓	x	✓	✓
PV MAX	✓ + Ret. mixer*	x	✓**	✓	✓	✓

* with EM Extension module / ** from version 2



rosenthal design 



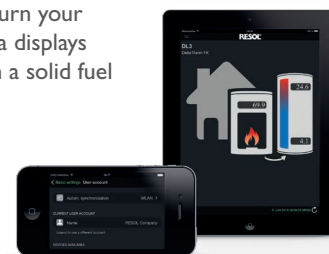
DeltaTherm® FK

The DeltaTherm® FK solid fuel boiler controller has been especially developed for systems with solid fuel boilers, water heating stoves or pellet stove heating systems. With the integrated PWM outputs, the FK can manage the speed control of 2 high-efficiency pumps.

With its easily configurable optional functions, the versatile software allows for the control of an electronic mixer for the return mixing function, a thermostatic backup heating, a target temperature control function and many more.

VBus®Touch FK

With VBus®Touch FK you can turn your mobile devices into remote data displays for your RESOL controller with a solid fuel boiler function.



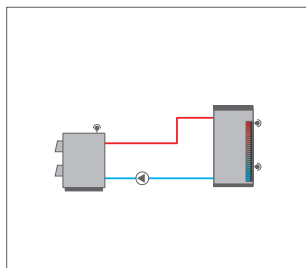
The biomass specialist!

- 2 relay outputs, 4 temperature sensor inputs
- 2 PWM outputs for the speed control of high-efficiency pumps
- Control of an electronic mixer for the return mixing function
- Heating backup
- Heat exchange function
- Thermostatic backup heating
- Heat pump demand (optional)

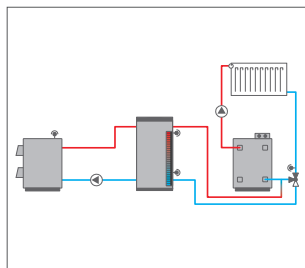
In order to connect sensor 4 to the controller, a sensor adapter cable is required.

Article no.	Article	Price bracket
115 002 83	DeltaTherm® FK – Solid fuel boiler controller	A
115 002 93	DeltaTherm® FK – Full kit » incl. 3 Pt1000 sensors (1 x FKP6, 2 x FRP6)	A

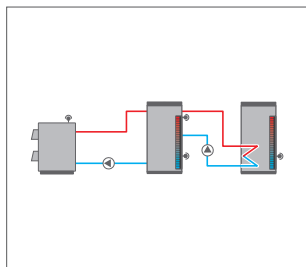
EXAMPLES



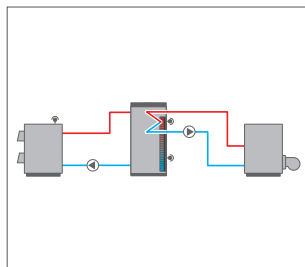
Solid fuel boiler



Solid fuel boiler with heating circuit return preheating



Solid fuel boiler with heat exchange control



Solid fuel boiler with thermostatic backup heating

TECHNICAL DATA

Inputs: 4 Pt1000 temperature sensors

Outputs: 2 semiconductor relays, 2 PWM outputs

PWM frequency: 1000 Hz

PWM voltage: 10.5 V

Switching capacity: 1 (1) A 240 V~ (semiconductor relay)

Total switching capacity: 2 A 240 V~

Power supply: 100–240 V~ (50–60 Hz)

Supply connection: type X attachment

Standby: 0.46 W

Mode of operation: type 1.C.Y action

Rated impulse voltage: 2.5 kV

Data interface: VBus®

VBus® current supply: 35 mA

Functions: minimum and maximum temperature limitation, mixer control for the return mixing function, target temperature control, speed control, heating circuit backup, thermostatic backup heating, heat exchange, PWM pump control, operating hours counter

Housing: plastic, PC-ABS and PMMA

Mounting: wall mounting, mounting into patch panels is possible

Indication / Display: full graphic display

Operation: 3 buttons

Ingress protection: IP 20/EN 60529

Protection class: I

Ambient temperature: 0 ... 40 °C

Degree of pollution: 2

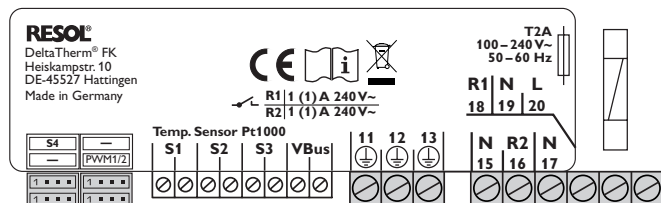
Relative humidity: 10 ... 90 %

Fuse: T2A

Maximum altitude: 2000 m above MSL

Dimensions: 172 x 110 x 46 mm

ELECTRICAL CONNECTION



ACCESSORIES

DL2 Plus Datalogger



For remote access to 2 controllers, integrated data logging and connection to a BMS

VBus®/USB interface adapter



PC connection kit for RESOL controllers with VBus® incl. Service CD

SDFK Smart Display



Display module with 3 displays for biomass boiler temperature and store temperature as well as for the pump status

AM1



Alarm module for signalling system failures

Sensor adapter cable



JST adapter cable for systems in which the 4th sensor is required

FAP13



Outdoor temperature sensor

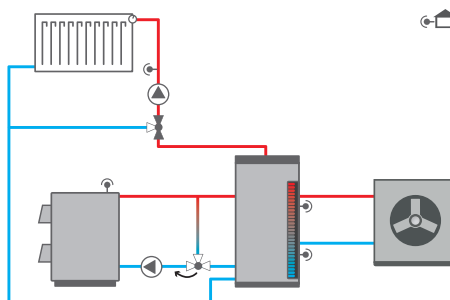


A clever combination – application examples for combined systems

Combine biomass with solar thermal, heat pump or Power-to-Heat and find the perfect hybrid solution!



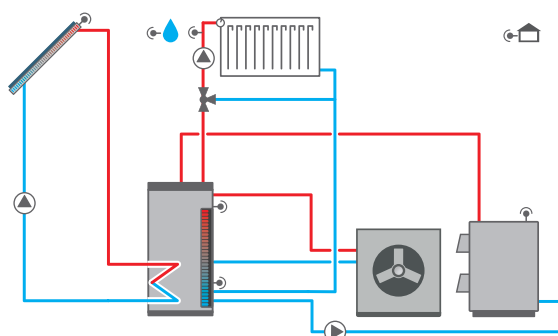
DeltaTherm® HC, HC Plus and DeltaSol® BX Plus



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



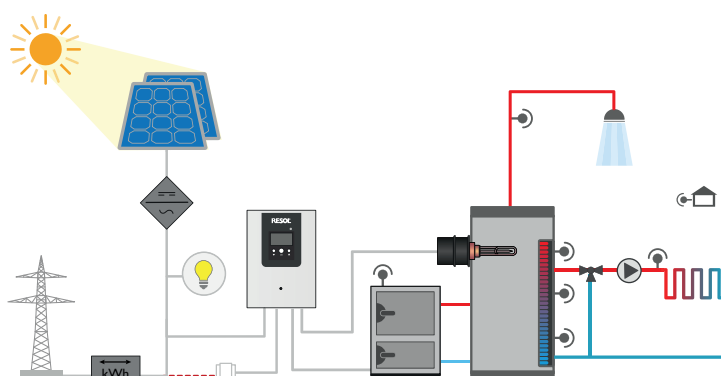
DeltaSol® MX



Solar system with 1 store and weather-compensated heating circuit for heating or cooling application of a heat pump as well as dew point calculation by means of the FRH(d) humidity sensor and backup heating by solid fuel boiler



DeltaTherm® PV MAX



Control of an electric immersion heater and of a solid fuel boiler; control of a mixed heating circuit* and DWH heating*

* with EM Extension module, from version 2