

Certified for the  
North American market!\*



## DeltaSol® MX – the all-rounder

- 14 relay outputs and 12 inputs for Pt1000, Pt500 or KTY temperature sensors
- Up to 5 extension modules via RESOL VBus® (45 sensors and 39 relays in total)
- Inputs for analogue and digital Grundfos Direct Sensors™
- Integrated control of up to 4 high-efficiency pumps via PWM outputs
- Data logging, storing, easy transfer of controller adjustments prepared and firmware updates via SD card
- Cooling over the heating circuit with condensation detection by means of a dew point switch
- Simplified timer, 0-10V boiler control and DHW preheating
- Remote access to the heating circuits with room control unit(s) or the VBus®Touch HC App
- Extended optional functions, e.g. solid fuel boiler function with mixer and target temperature control

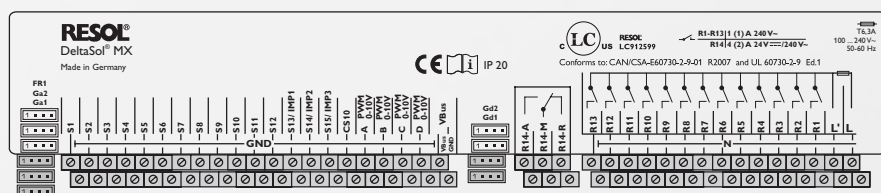
\* The cLCus certification confirms that the controller is certified to UL 60730-2-9 and CSA - E60730-2-9-01.

The **DeltaSol® MX** is the most versatile system controller for complex solar and heating systems in our product range. It is ideal to control a combination of solar and non-solar parts of the system.

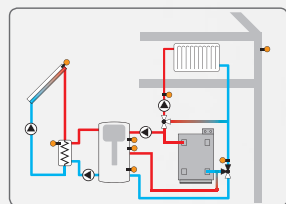
Easy combination and parameterisation of pre-programmed functions for several millions of hydraulic variants.

Customised and OEM versions are available on request.  
Please contact our sales team.

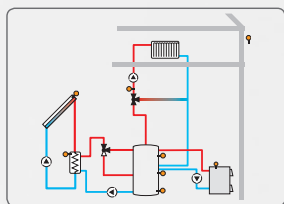
## Electrical connection



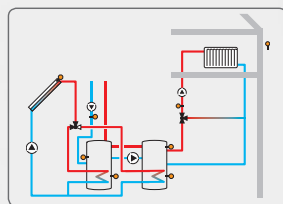
## Examples



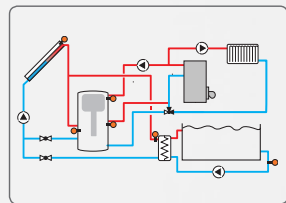
Solar system with combined store, external heat exchanger, weather-compensated heating circuit, return preheating and backup heating



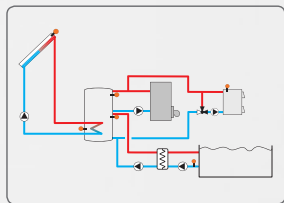
Solar system with external heat exchanger, store loading in layers and backup heating by solid fuel boiler



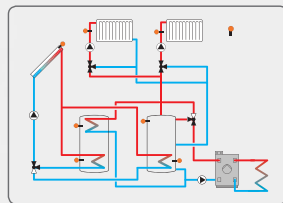
Solar system with 2 stores, circulation pump control, heat exchange control and weather-compensated heating circuit



Solar system with combined store and swimming pool, backup heating, heating circuit loading and return preheating



Solar system with store, swimming pool and backup heating over gas- and solid fuel boiler



Solar system with 2 stores and 2 weather-compensated heating circuits for heating or cooling application of a heat pump

### RESOL DeltaSol® MX

Price bracket A | Article no.: **115 992 03**

### RESOL DeltaSol® MX – Full kit

Incl. 6 Pt1000 sensors (2 x FKP6, 4 x FRP6)

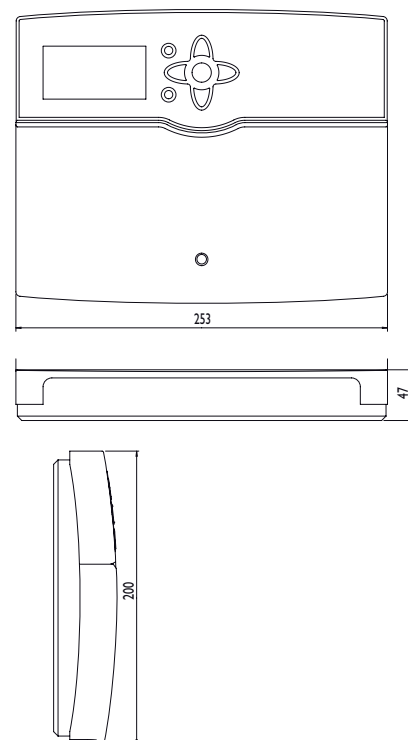
Price bracket A | Article no.: **115 992 13**

An SD card is included with the controller.



Visit [www.resol.de/videos](http://www.resol.de/videos) for a product video about this controller

## Technical data



**Inputs:** 12 Pt1000, Pt500 or KTY temperature sensor inputs (can optionally be used for remote controls, operating mode switches or potential-free switches), 3 impulse inputs for V40 flowmeters, 1 input for a FlowRotor, 1 CS10 solar cell, 4 Grundfos Direct Sensors™ (2 x analogue, 2 x digital)

**Outputs:** 14 relays, 13 of them semiconductor relays for pump speed control, 1 potential-free relay and 4 PWM outputs (convertible to 0-10V signal outputs)

**PWM frequency:** 512 Hz

**PWM voltage:** 10.5 V

**Switching capacity:**

- 1 (1) A 240 V~ (semiconductor relay)
- 4 (2) A 24 V==/240 V~ (potential-free relay)

**Total switching capacity:** 6.3 A 240 V~

**Power supply:** 100 ... 240 V~ (50 ... 60 Hz)

**Supply connection:** type Y attachment

**Standby:** 0.84 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:** 35 mA

**Functions:** 7 integrated calorimeters and control of weather-compensated heating circuits. Adjustable system parameters and add-on options (menu-driven), balance and diagnostics functions, function control according to VDI 2169

**Housing:** plastic, PC-ABS and PMMA

**Mounting:** wall mounting, mounting into patch panels is possible

**Indication/Display:** full graphic display

**Operation:** 7 push buttons

**Ingress protection:** IP 20/EN 60529

**Protection class:** I

**Ambient temperature:** 0 ... 40 °C

**Pollution degree:** 2

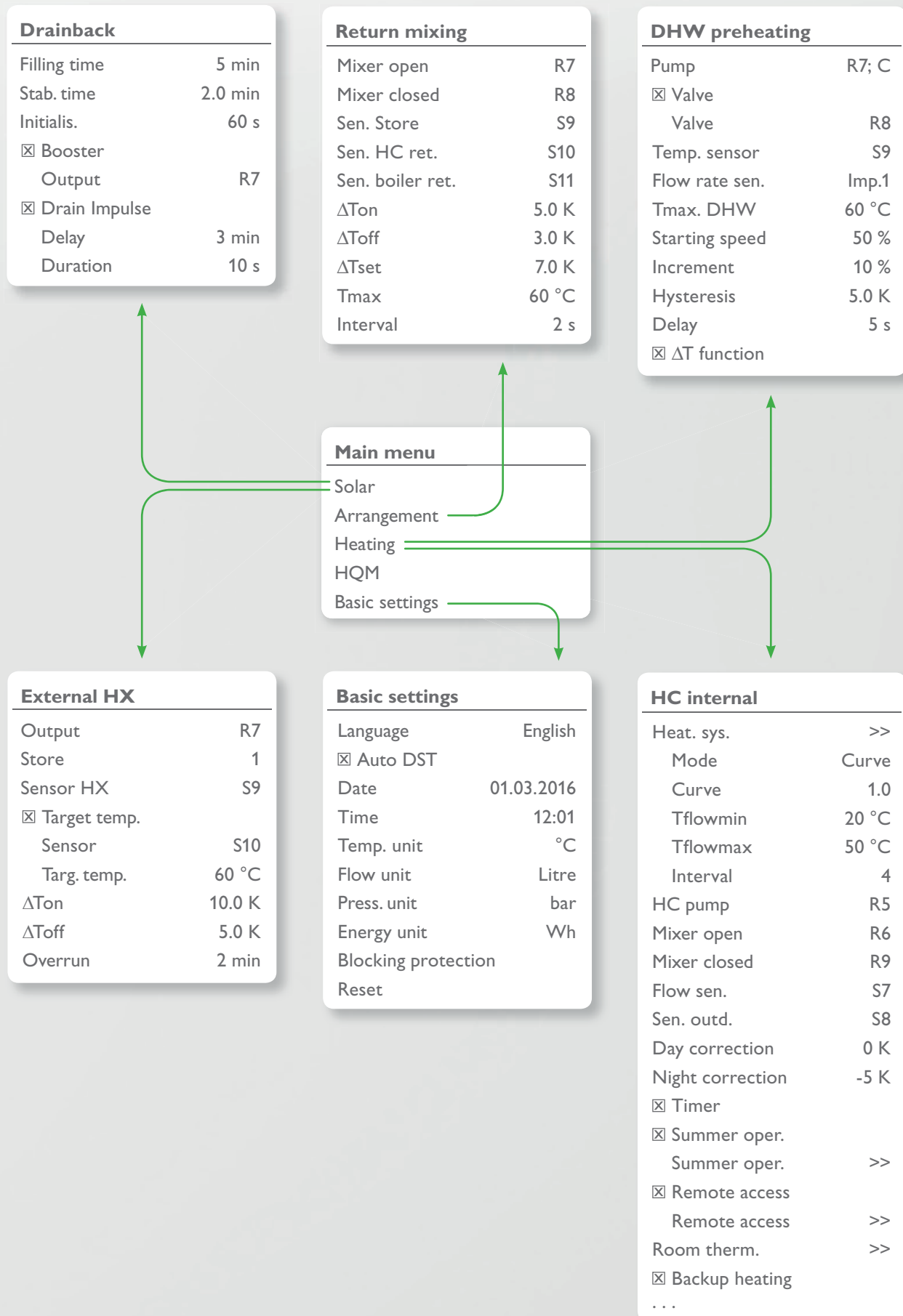
**Dimensions:** 253 x 200 x 47 mm

\*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

# Operating concept

Pre-programmed optional functions facilitate parameterisation:



Each optional function has its own menu with all adjustment channels required, clearly named.

## Functional possibilities

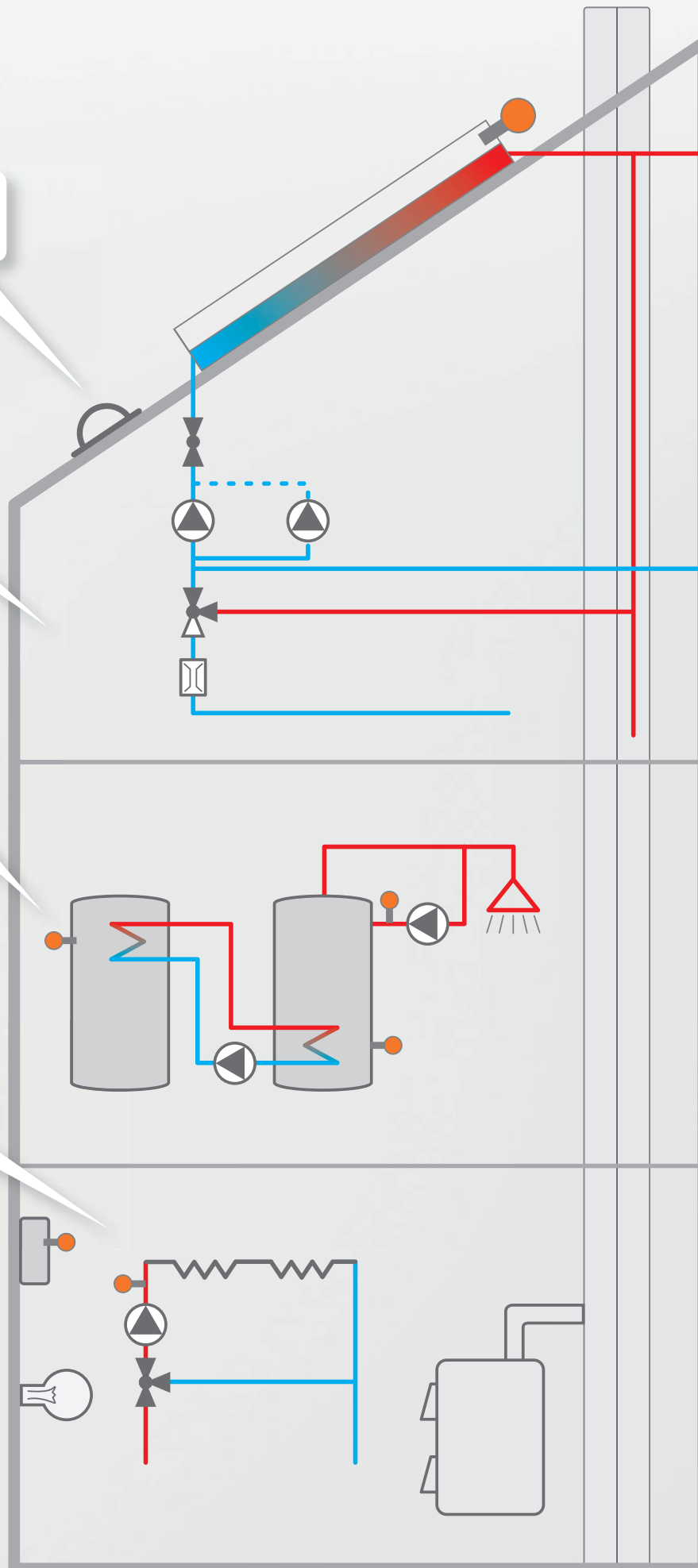
Irradiation-controlled bypass,  
irradiation switch

Twin pump or booster pump, with  
optional flow rate monitoring – in a  
pre-programmed optional function

Circulation, heat exchange control,  
thermal disinfection – in pre-programmed  
optional functions

Floor heating with optional room  
temperature monitoring, solid fuel boiler

Error relay function for optimum  
function control



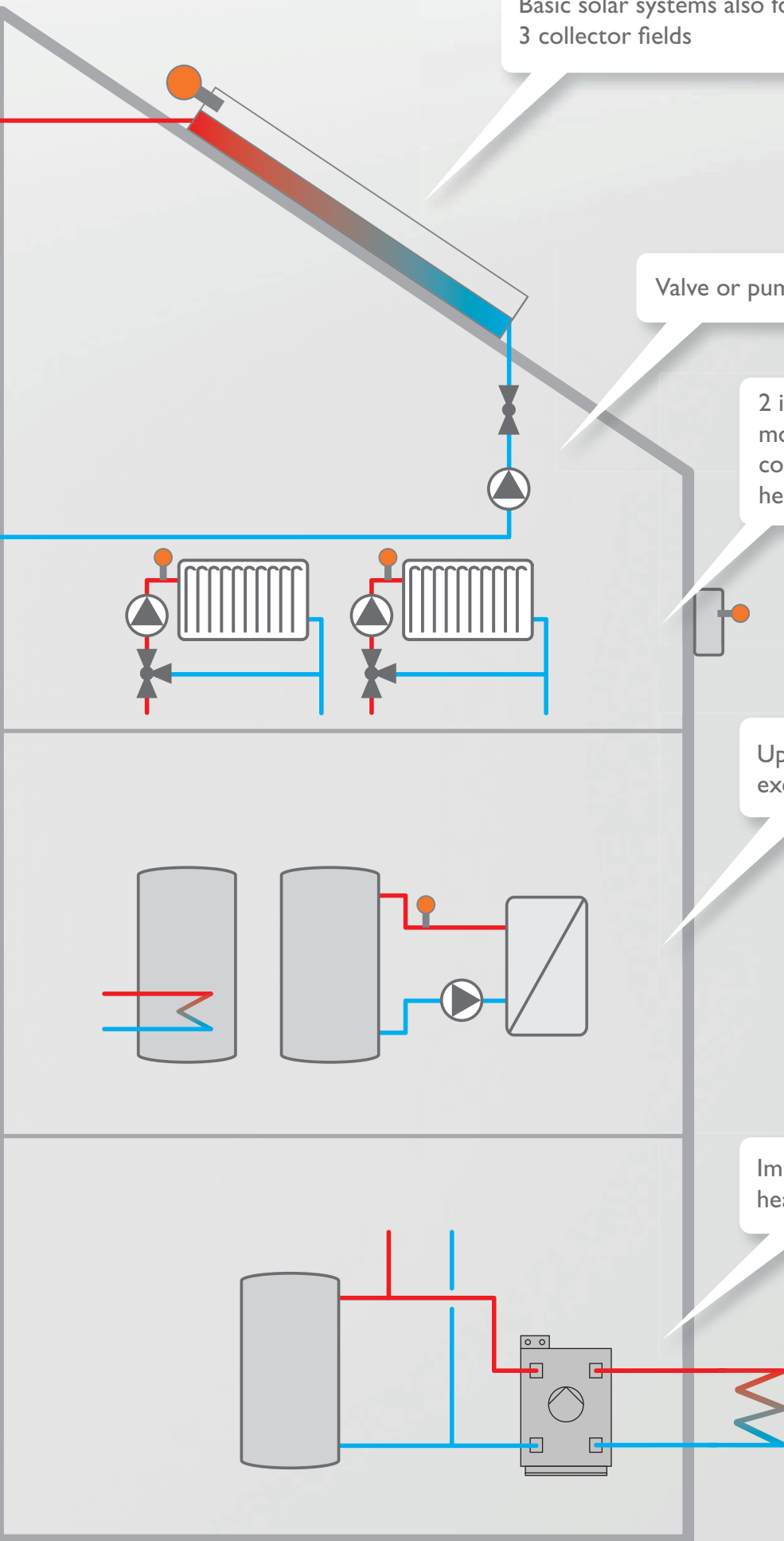
Basic solar systems also for  
3 collector fields

Valve or pump logic

2 internal, with EM extension  
modules up to 5 additional weather-  
compensated heating circuits for  
heating and cooling application

Up to 5 solar stores, external heat  
exchanger with priority logic etc.

Implementation of a heat pump for  
heating and cooling purposes



# Visualisation



Freely configurable Dashboard  
– your live system or diagram incl.  
weather data at a glance.



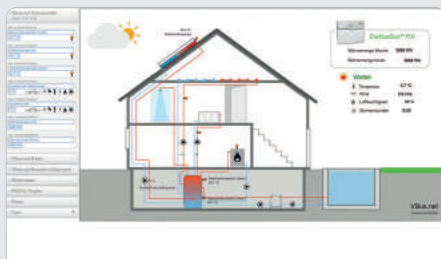
## VBus.net

The Internet portal for easy and secure access to your system data – [www.vbus.net](http://www.vbus.net).

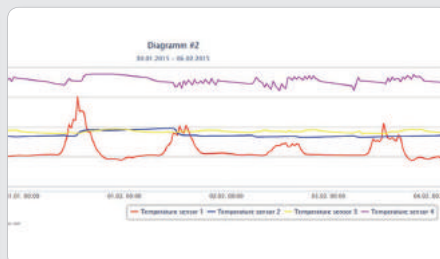
With VBus.net, you can display live data of your system. Furthermore, you can create and download diagrams for defined periods of time from the data stored.

## ? Why VBus.net?

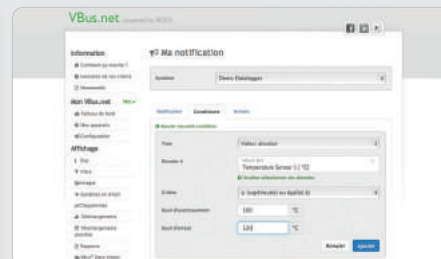
- Suitable for all RESOL controllers connected to a Datalogger
- Basic version free of charge
- For every operating system and all mobile devices worldwide – no software installation required



Live system editor with extended format  
and layout functions



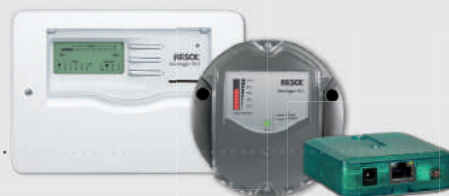
Customise and design  
your own diagrams



Automatic e-mail notifications  
and reports



DeltaSol® MX



DL3/DL2 Datalogger or KM2 Communication module



Router

