RESOL®
CONTROL TECHNOLOGY

rosenthal design **r**

VBus.net | RPT | VBus®Apps | HE pump control | SD

DeltaSol® BX Plus

The RESOL *DeltaSol®* BX Plus is a system controller for multi-store solar and heating systems. The intuitive commissioning menu leads you through the system configuration by requiring the most important adjustments directly after connecting the controller.
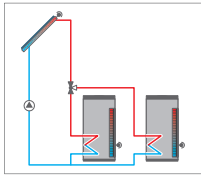
For an optimum overview, all sensor and relay allocations are listed in the service menu.
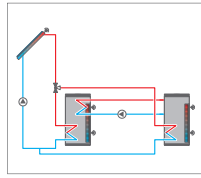
More possibilities!

- 5 relay outputs and 8 inputs for Pt1000, Pt500 or KTY temperature sensors
- Up to 2 extension modules via RESOL VBus® (21 sensors and 15 relays in total)
- Inputs for digital Grundfos Direct Sensors™
- Integrated control of up to 2 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

- Measurement of the relative humidity in order to adapt the flow temperature
- Simplified timer, 0-10 V 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

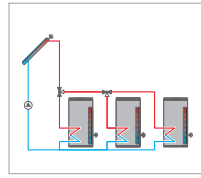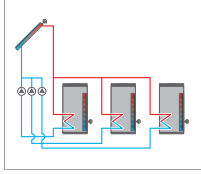| Article no.	Article	Price bracket
115 001 33	DeltaSol® BX Plus – System controller	A
115 001 43	DeltaSol® BX Plus – Full kit » incl. 5 Pt1000 sensors (2 x FKP6, 3 x FRP6)	A

EXAMPLES

2-store system with valve logic, 1 pump, 3 sensors and 3-port valve
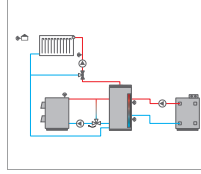
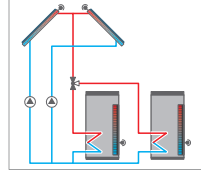2-store solar system with valve logic and heat exchange control
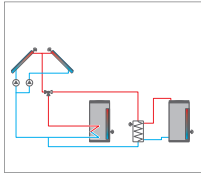
Solar system with 3 stores, 3-port-valve logic

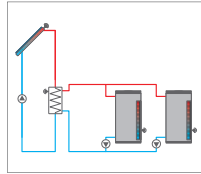3-store solar system with pump logic and priority logic

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

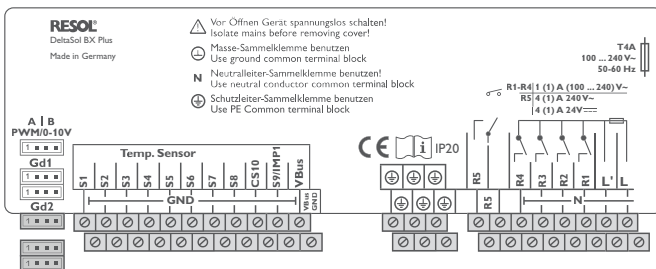Solar system with east-/west collectors and 2 stores (valve logic)

Solar system with east-/west collectors, 2 stores and external heat exchanger, 3-port valve control

Solar system with 2 stores and external heat exchanger, pump logic

ELECTRICAL CONNECTION

RESOL®
DeltaSol BX Plus
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 (100 ...| 240) V~
R5 4 (1) A 240 V~
4 (1) A 24 V⎓

A | B PWM/0-10V
Gd1
Gd2

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

IP20

R5 R4 R3 R2 R1 L' L N

* 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

TECHNICAL DATA

Inputs:
8 Pt1000, Pt500 or KTY temperature sensor inputs (can optionally be used for remote controls, operating mode switches or potential-free switches), 1 impulse input for V40 flowmeter (can optionally be used for Pt1000, Pt500 or KTY temperature sensor, remote control, operating mode switch or potential-free switch); 1 CS10 solar cell, 2 Grundfos Direct Sensors™ (digital)*

Outputs:
5 relays, 4 of them semiconductor relays for speed control, 1 potential-free relay, 2 PWM outputs (switchable to 0-10 V)

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: 4 A 240 V~

Power supply: 100−240 V~ (50−60 Hz)

Supply connection: type X attachment

Standby: 0.91 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: 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 buttons

Ingress protection: IP 20/EN 60529

Protection class: I

Ambient temperature: 0…40 °C

Degree of pollution: 2

Dimensions: 198 × 170 × 43 mm

ACCESSORIES

Wireless room control units and accessories

Used to measure and adjust the room temperature

DL3 Datalogger

For visualisation via VBus.net, incl. SD card, mains adapter, network and VBus® cable

VFD/RPD Grundfos Direct Sensor™

Digital sensors in different versions

Calorimeter extension kits

Calorimeter extension kits (consisting of 2 x FRP30, 1 x V40 flowmeter)

EM Extension module

Sensor and relay Extension module with 5 outputs and 6 inputs

FRHd (digital)

For measuring the relative humidity and the room temperature