RESOL®
CONTROL TECHNOLOGY

rosenthal design **r**

VBus.net

RPT

HE pump control

MicroSD
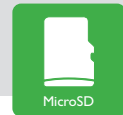
DeltaSol® SL

With its versatile software, the RESOL *DeltaSol®* SL can control even complex systems easily and reliably. 27 pre-configured system layouts with up to 3 hydraulic variants each facilitate the commissioning and enable the adaptation to the individual system requirements.
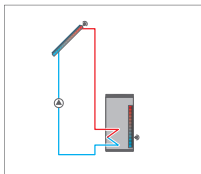
The operation via 2 main buttons and 1 adjustment dial, the Lightwheel®, follows the well-known operating concept. The manual mode and the holiday function can be activated by pressing a single button.

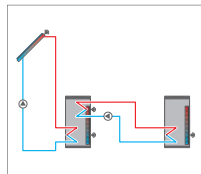## Modern design, many application possibilities!

- Integrated MicroSD card slot

- 4 relay outputs (incl. 1 potential-free extra-low voltage relay)

- 4 inputs for Pt1000, Pt500 or KTY temperature sensors

- Input for 1 analogue Grundfos Direct Sensor™

- 1 V40 impulse input (also usable as a Pt1000, Pt500 or KTY temperature sensor input)

- 2 PWM outputs for the speed control of high-efficiency pumps

- 27 basic system layouts with up to 3 hydraulic variants each to choose from

- Automatic function control according to VDI 2169

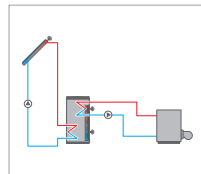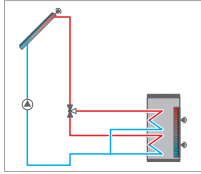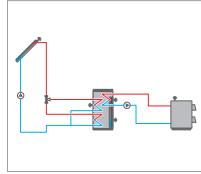| Article no.	Article	Price bracket
115 003 33	*DeltaSol®* SL – Solar controller	A
115 003 43	*DeltaSol®* SL – Full kit » incl. 4 Pt1000 sensors (2 x FKP6, 2 x FRP6)	A

EXAMPLES

Solar system with 1 store

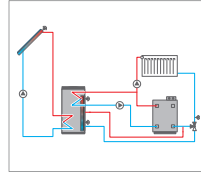Solar system with 1 store and heat exchange control

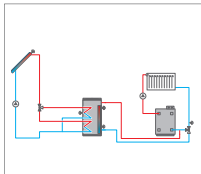Solar system with 1 store and thermostatic backup heating
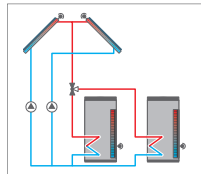
Solar system with store loading in layers

Solar system with store loading in layers and solid fuel boiler

Solar system with 1 store, heating circuit return preheating and thermostatic backup heating
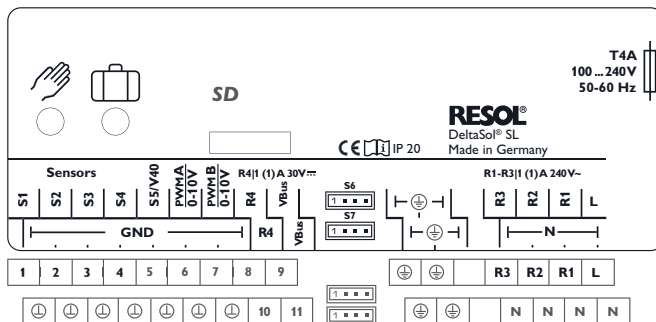
Solar system with store loading in layers and heating circuit return preheating

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

ELECTRICAL CONNECTION

SD

RESOL®
DeltaSol® SL
Made in Germany

CE IP 20

T4A
100 ...240V
50-60 Hz

Sensors | S5/V40 | PWMA 0-10V | PWMB 0-10V | R4 | VBus | R4|1 (1) A 30V⎓ | S6 | S7 | R1-R3|1 (1) A 240V~

S1 S2 S3 S4 | GND | R4 | VBus | R3 R2 R1 L

1 2 3 4 5 6 7 8 9 | 10 11 | R3 R2 R1 L | N N N N

Sensor 6: Grundfos Direct Sensor™, Sensor 7: frequency input

TECHNICAL DATA

Inputs: 4 inputs for Pt1000, Pt500 or KTY temperature sensors, 1 analogue Grundfos Direct Sensor™, 1 frequency input, 1 V40 impulse input (also usable as a Pt1000, Pt500 or KTY temperature sensor input)

Outputs: 3 semiconductor relays, 1 potential-free extra-low voltage relay, 2 PWM outputs (switchable to 0-10 V)

PWM frequency: 512 Hz

PWM voltage: 10.8 V

Switching capacity:
1 (1) A 240 V~ (semiconductor relay)
1 (1) A 30 V⎓ (potential-free relay)

Total switching capacity: 3 A 240 V~

Power supply: 100−240 V~ (50−60 Hz)

Supply connection: type X attachment

Standby: 0.69 W

Temperature controls class: I

Energy efficiency contribution: 1 %

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

Rated impulse voltage: 2.5 kV

Data interface: RESOL VBus®, MicroSD card slot

VBus® current supply: 60 mA

Functions: operating hours counter, tube collector function, thermostat function, pump speed control, heat quantity measurement, adjustable system parameters and optional functions (menu-driven), balance and diagnostics function, function control according to VDI 2169

Housing: plastic, PC-ABS and PMMA

Mounting: wall mounting, mounting into patch panels is possible

Indication / Display: System-Monitoring-Display for system visualisation, 16-segment-display, 8 symbols for indication of the system status, operating control LED (Lightwheel®)

Operation: 4 buttons and 1 adjustment dial (Lightwheel®)

Ingress protection: IP 20 / EN 60529

Protection class: I

Ambient temperature: 0 ... 40 °C

Degree of pollution: 2

Dimensions: 110 x 166 x 47 mm

ACCESSORIES

Datalogger DL2
For visualisation via VBus.net, incl. SD card and network cable, mains adapter and VBus® cable pre-connected

SP10
Sensor overvoltage protection

VFS / RPS Grundfos Direct Sensor™
Analogue sensors in different versions

AM1
Alarm module for signalling system failures

MicroSD card
MicroSD card, 4 GB memory capacity, incl. adapter

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