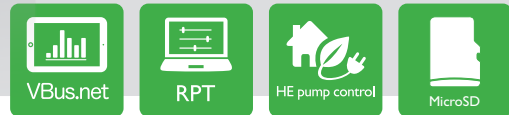




rosenthal design



## 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.

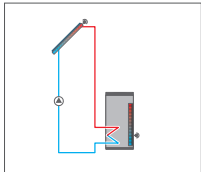
The operation via 2 main buttons and 1 adjustment dial, the Light-wheel®, follows the well-known operating concept. The manual mode and the holiday function can be activated by pressing a single button.

## Modern design, many application possibilities!

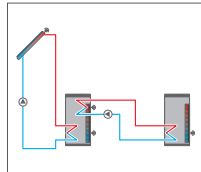
- Integrated MicroSD card slot
- 4 relay outputs (incl. 1 potential-free extra-low voltage relay)
- 4 inputs for Pt1000, Pt500 or KTY temperature sensors
- Input for 1 analogue Grundfos Direct Sensor™
- 1 V40 impulse input (also usable as a Pt1000, Pt500 or KTY temperature sensor input)
- 2 PWM outputs 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
- Heat pump demand (optional)

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

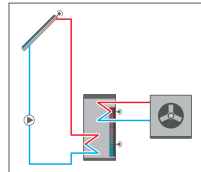
## EXAMPLES



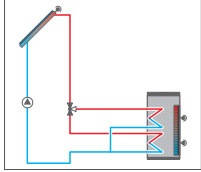
Solar system with 1 store



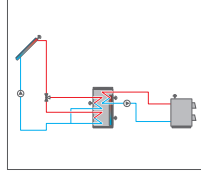
Solar system with 1 store and heat exchange control



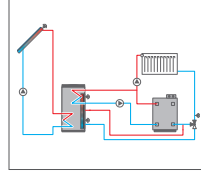
Solar system with 1 store and backup heating with heat pump



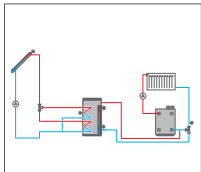
Solar system with store loading in layers



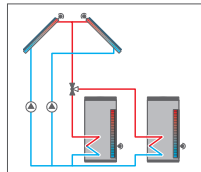
Solar system with store loading in layers and solid fuel boiler



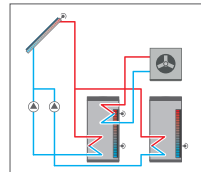
Solar system with 1 store, heating circuit return preheating and thermostatic backup heating



Solar system with store loading in layers and heating circuit return preheating

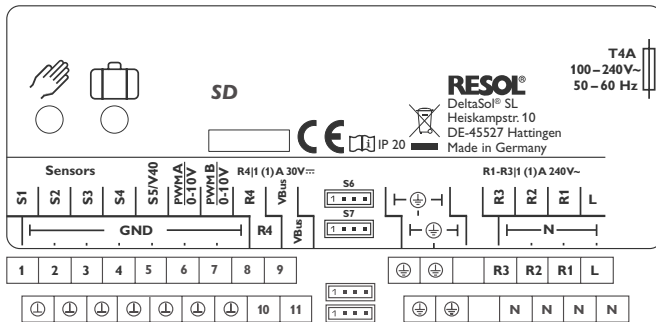


Solar system with east-/west collectors and 2 stores (valve logic)



Solar system with 2 stores, pump logic and backup heating with heat pump

## ELECTRICAL CONNECTION



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 0-10V)

**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:** 0.72 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:** 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

**Relative humidity:** 10 ... 90 %

**Fuse:** T4A

**Maximum altitude:** 2000 m above MSL

**Dimensions:** 110 x 166 x 47 mm

## ACCESSORIES

### DL2 Plus Datalogger



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

### 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, 16 GB memory capacity, incl. adapter

### Calorimeter extension kits



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