

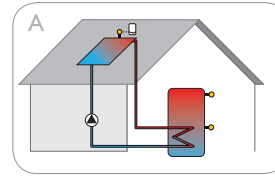
DeltaSol® AL

Differential temperature controller

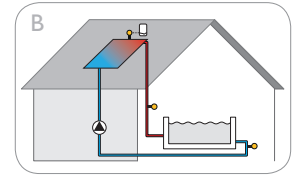
QUICKGUIDE



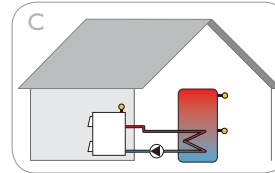
Basic system layout to choose from:



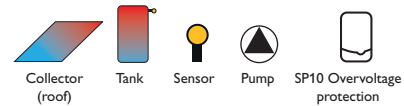
3 sensors, solar collector & solar tank



3 sensors, solar collector & swimming pool



3 sensors, solar collector & solid fuel boiler



11210337



The cTUVus certification confirms that the controller is certified to UL 60730-1A and CSA E60730.1.

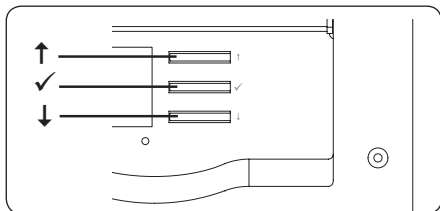
General function:

Button ↑: Scrolling upwards, increasing adjustment values

Button ✓: **SET** Confirmation / selection

Button ↓: Scrolling downwards, reducing adjustment values

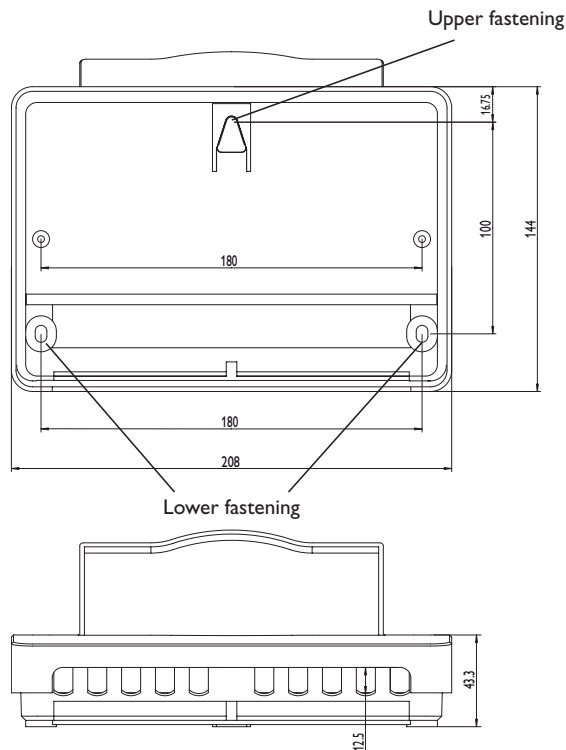
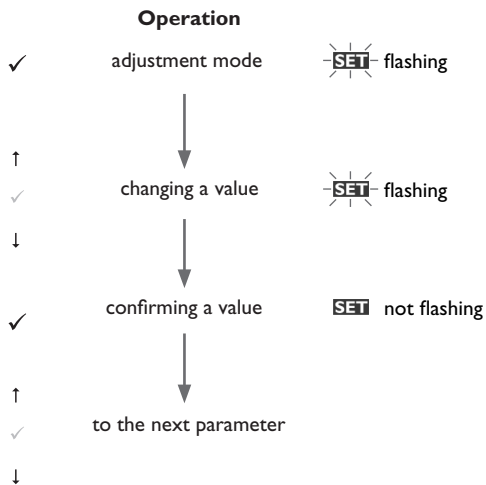
During normal operation, display channels will be displayed.



Accessing adjustment channels:

Use button in order to scroll to the last display channel, then press and hold down button for approx. 3 s.

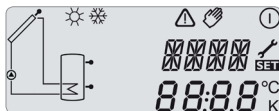
Changing adjustable parameters:



Flashing codes

System screen flashing codes

- Pump symbol is flashing when the relay is active.
- Sensor symbols are flashing if the corresponding sensor display channel is selected.
- Sensors symbols are flashing quickly in the case of a sensor fault.



LED flashing codes

Green: everything OK

Red/green flashing: initialisation phase
manual mode

Red flashing: sensor fault (sensor symbol is flashing quickly)

Commissioning:

1. Connect all sensors and actuators (pumps, valves, auxiliary relays) to the controller.
2. Establish the power supply of the controller.
3. During the initialization phase the operating control LED flashes red and green.
4. If failures occur after initialization phase (control lamp flashes, flashing symbols in display), go to the Troubleshooting chapter of the controller manual.

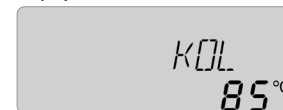


Note:

This guide is for demonstration purposes only. Please read the mounting and operating manual carefully before commissioning the controller and pay attention to all safety advice and information. Wrong connection or incorrect use can lead to damages to the device, the heating systems or to persons.

During normal operation, display channels will be displayed.

The first display channel shows the collector temperature (KOL).



Carry out the following adjustments:

1. Language

Adjust the desired menu language

- dE : German
 - En : English
 - Fr : French
- ➔ Change to En.



2. Unit

Adjust the unit in which temperatures and temperature differences are to be displayed.

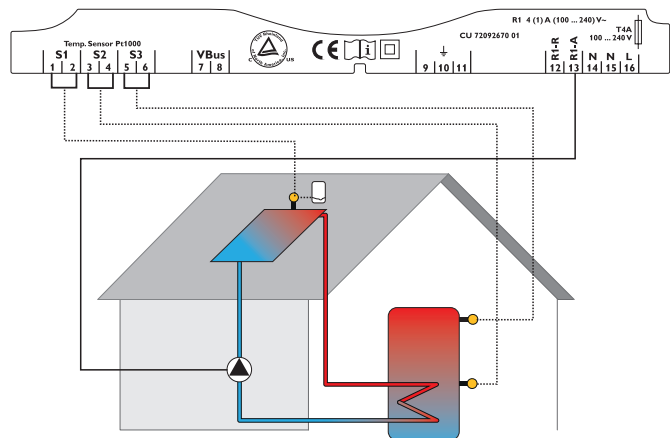
➔ Change to suit your needs.



Note:

For information on system examples, see pages 4 and 5.

System A – solar system with 1 tank, 1 pump and 2 or 3 sensors. The sensors S1/S2 can also be used for heat quantity measurement.



Sensors and actuators required:

- S1** Collector (roof) sensor
- S2** Tank sensor; bottom, height of coil
- R1-A** Solar pump

Additional sensors, actuators:

- S3** Additional temperature monitoring, e.g. top of tank

Maximum tank temperature

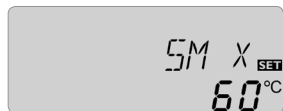
Adjustment range: 4 ... 95 °C

Factory setting: 60 °C

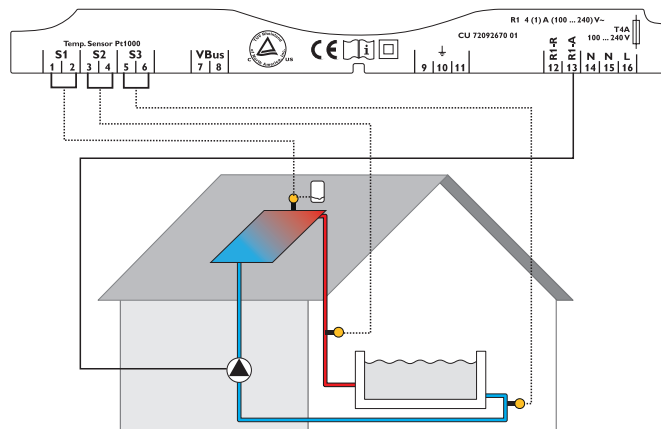
→ Change to suit your needs.

Loading will stop when this temperature is reached at tank sensor (S2).

Factory setting is 60 °C to avoid scald risk or system damage.



System B – solar system with 1 tank, 1 pump and 2 or 3 sensors. The sensors S1/S2 can also be used for heat quantity measurement.



Sensors and actuators required:

- S1** Collector (roof) sensor
- S2** Pool sensor, return
- R1-A** Solar pump

Additional sensors, actuators:

- S3** Additional temperature monitoring

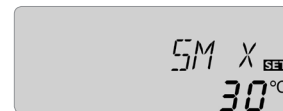
Maximum tank temperature (pool)

Adjustment range: 4 ... 95 °C

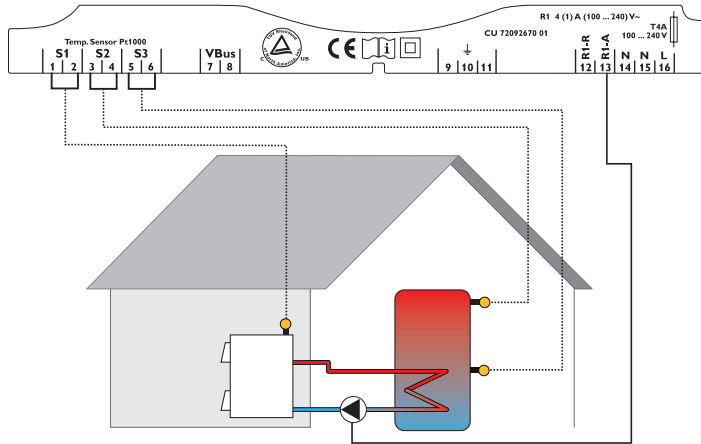
Factory setting: 60 °C

→ Change to 30 °C.

Loading will stop when this temperature is reached at pool sensor S2.



System C – solar system with 1 tank, 1 pump and 2 or 3 sensors. The sensors S1/S2 can also be used for heat quantity measurement.



Sensors and actuators required:

- S1** Solid fuel boiler sensor
- S2** Tank sensor, bottom, height of coil
- R1-A** Solar pump

Additional sensors, actuators:

- S3** Additional temperature monitoring, e.g. top of tank

Maximum tank temperature

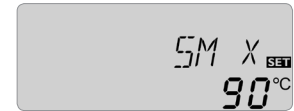
Adjustment range: 4 ... 95 °C

Factory setting: 60 °C

→ Change to 90 °C.

Loading will stop when this temperature is reached at tank sensor S2.

Factory setting is 60 °C [140 °F] to avoid scald risk or system damage.



Minimum boiler limitation (maximum collector limitation)

→ Set the OCN option to ON.



Minimum boiler temperature

Minimum collector temperature (boiler)

Adjustment range: 10 ... 90 °C

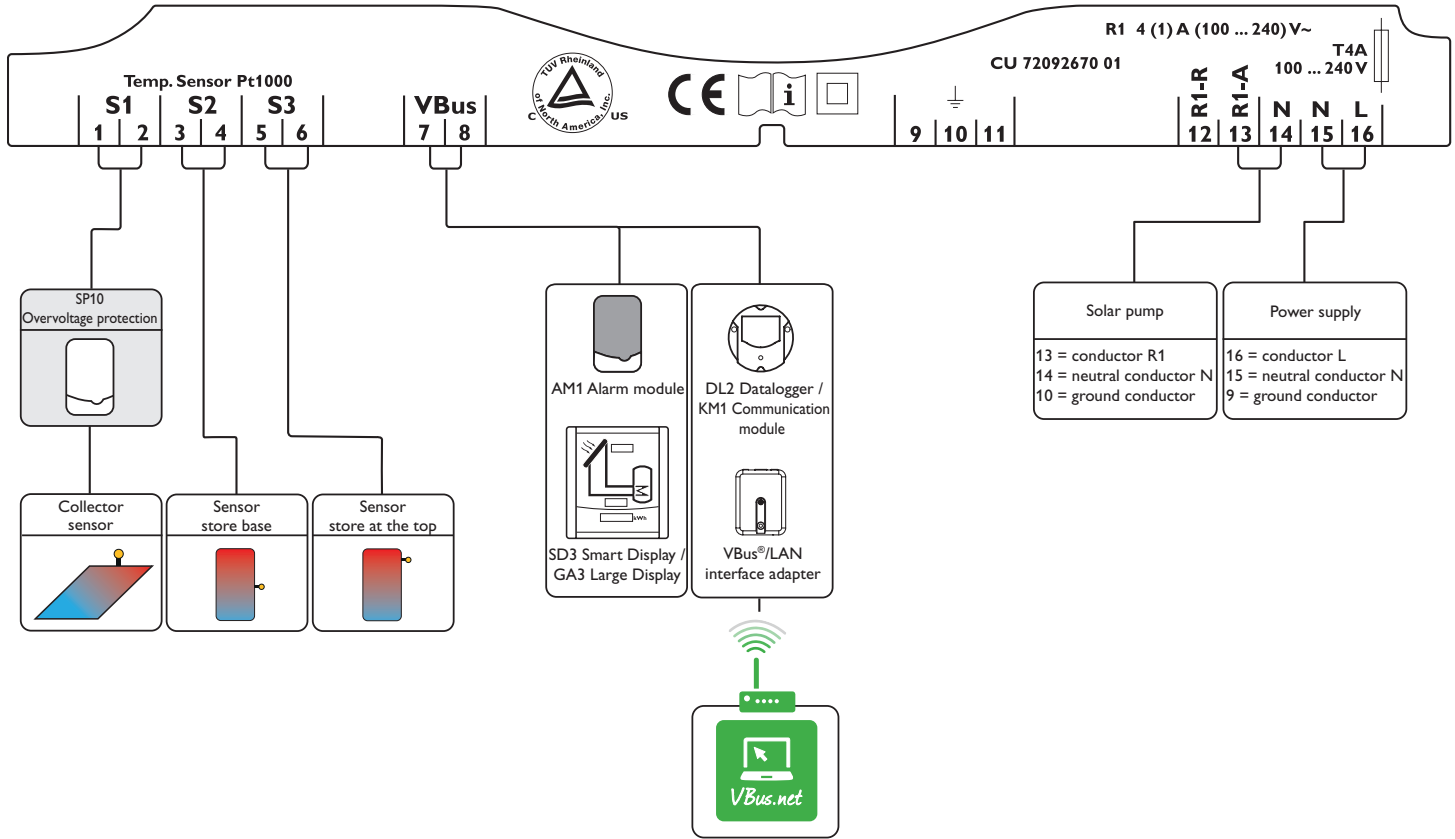
Factory setting: 10 °C

→ Change to 55 °C.

The pump will be switched on, if the minimum temperature is exceeded.



Exemplary figure for illustrating the connection possibilities





RESOL GA3 Large Display

Large Display module with 3 displays for collector and tank temperatures as well as for heat quantity, incl. power supply.



RESOL SD3 Smart Display

Display module for the living area with 3 displays for collector and tank temperature as well as for heat quantity.



RESOL DL2 Datalogger

Datalogger incl. RESOL Service CD, SD card and LAN cable, power supply adapter and VBus® cable pre-connected.



RESOL AM1

Alarm module for signaling system failures.



RESOL VBus®/LAN interface adapter

The VBus®/LAN interface adapter is designed for the direct connection of the controller to a PC or router.



RESOL VBus®/PWM interface adapter

The VBus®/PWM interface adapter is designed for the direct connection of the controller to a PWM or 0-10 V signal.



RESOL KM1 Communication module

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



RESOL SP10

Overvoltage protection device SP10 should be used in order to protect the susceptible temperature sensors in or at the collector against induced overvoltages.

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