

DeltaSol[®] CS Plus

The high-
efficiency
pump
specialist!

Heat quantity measurement with
VFD Grundfos Direct Sensor[™]

The **DeltaSol**[®] CS Plus has been especially developed for the speed control of high-efficiency pumps in standard solar and heating systems. It is equipped with **two PWM outputs** and an additional input for a VFD Grundfos Direct Sensor[™] that enables a **precise heat quantity measurement**.

The commissioning menu will lead you through the most important adjustments for the initial configuration in only eight steps.

- For the speed control of high-efficiency pumps
- 1 input for a VFD Grundfos Direct Sensor[™]
- Heat quantity measurement
- Commissioning menu
- 10 basic system layouts to choose from
- Function control
- Optional thermal disinfection function
- Drainback option
- Unit °C and °F selectable

RESOL **DeltaSol**[®] CS Plus

Price bracket A | Article no.: **115 003 13**

RESOL **DeltaSol**[®] CS Plus – Full kit

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

Price bracket A | Article no.: **115 003 03**

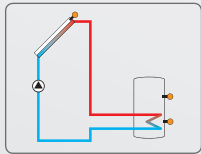
A PWM adapter cable is included with the controller.

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

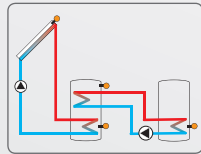
Manuals:



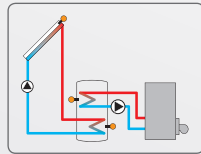
Examples



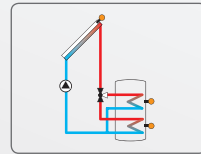
Solar system with 1 store



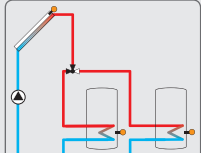
Solar system with 1 store and heat exchange controller



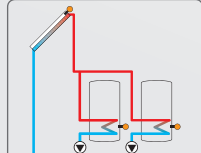
Solar system with 1 store and thermostatic afterheating



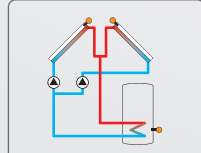
Solar system with store loading in layers



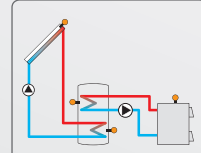
Solar system with 2 stores, valve logic



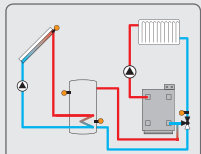
Solar system with 2 stores, pump logic



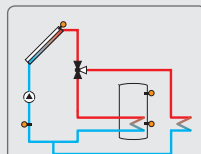
Solar system with east-west collectors and 1 store



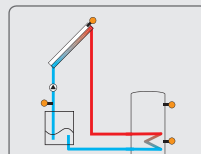
Solar system with 1 store and solid fuel boiler



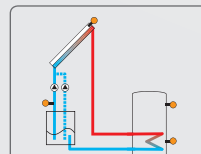
Solar system with heating circuit return preheating



Solar system with 1 store and heat dump



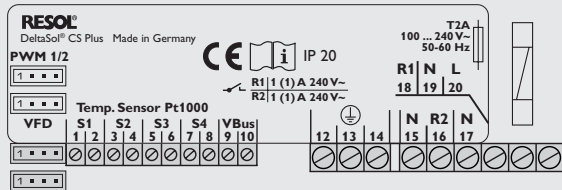
Solar drainback system*



Solar drainback system with booster*

* Application examples

Electrical connection



Accessories



RESOL Moisture-proof housing
Moisture-proof housing for controller installation outdoors or in highly humid locations (without controller)

Price bracket B | Article no.: **290 028 70**



VFD Grundfos Direct Sensor™
Digital sensors in different versions



RESOL AM1
Alarm module for signalling system failures

Price bracket B | Article no.: **180 008 70**



RESOL VBus® / USB interface adapter
PC connection kit for RESOL controllers with VBus® incl. RESOL Service CD

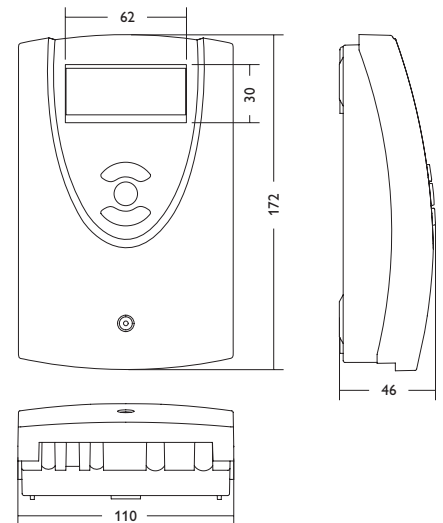
Price bracket B | Article no.: **180 008 50**



RESOL SP10
Sensor overvoltage protection

Price bracket A | Article no.: **180 110 70**

Technical data



Inputs: 4 Pt1000 temperature sensors, 1 VFD Grundfos Direct Sensor™

Outputs: 2 semiconductor relays, 2 PWM outputs

PWM frequency: 512 Hz

PWM voltage: 10,5 V

Switching capacity:

1 (1) A 240 V~ (semiconductor relay)

Total switching capacity: 2 A 240 V~

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

Supply connection: type Y attachment

Power consumption: < 1 W (standby)

Mode of operation: type 1.C.Y action

Rated impulse voltage: 2.5 kV

Data interface: RESOL VBus®

VBus® current supply: 35 mA

Functions: function control, operating hours counter, tube collector function, thermostat function, speed control and heat quantity measurement

Housing: plastic, PC-ABS and PMMA

Mounting: wall mounting, mounting into patch panels is possible

Indication/Display: System-Monitoring-Display for visualisation of systems, 16-segment and 7-segment display, 8 symbols for indication of system status

Operation: 3 push buttons at the front

Ingress protection: IP 20/EN 60529

Protection class: I

Ambient temperature: 0 ... 40 °C

Pollution degree: 2

Dimensions: 172 x 110 x 46 mm