



High-efficiency  
even for small  
systems!

Heat quantity measurement with  
Grundfos Direct Sensor™ VFD!



The **DeltaSol® CS/2** and **CS/4** controllers are used for speed control of a HE pump in small standard solar thermal and heating systems.

They are equipped with a **PWM output** as well as with an input for a VFD Grundfos Direct Sensor™ which enables precise **heat quantity measurement**. The commissioning menu ensures an easy and quick configuration.

- For the speed control of high-efficiency pumps
- 1 input for a VFD Grundfos Direct Sensor™
- Heat quantity measurement
- Commissioning menu
- 3 basic system layouts to choose from (**DeltaSol® CS/4** only)
- Function control
- Tube collector function, thermal disinfection (**DeltaSol® CS/4** only)
- Drainback option
- Unit °C and °F selectable

#### RESOL DeltaSol® CS

Price bracket A | Article no. CS/2: **115 004 73**

Price bracket A | Article no. CS/4: **115 004 53**

#### RESOL DeltaSol® CS – Full kit

Incl. 3 Pt1000 sensors (1 x FKP6, 2 x FRP6)

Price bracket A | Article no. CS/2: **115 004 63**

Price bracket A | Article no. CS/4: **115 004 43**

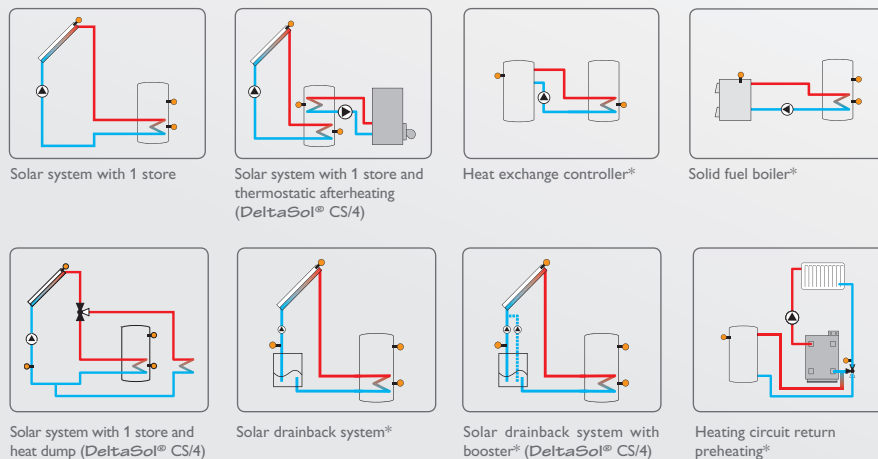
A PWM adapter cable is included with the controller.

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

Manuals:

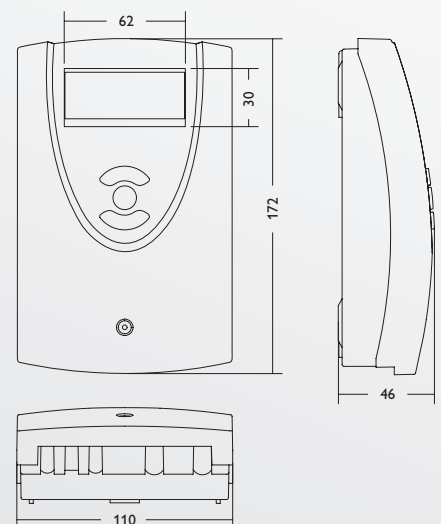


## Examples



\* Application examples

## Technical data



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

**Outputs:** 1 semiconductor relay, 1 PWM output (DeltaSol CS/2), 2 semiconductor relays, 1 PWM output (DeltaSol CS/4)

**PWM frequency:** 512 Hz

**PWM voltage:** 10,5 V

**Switching capacity:**

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

**Total switching capacity:**

1 A 240 V~ (DeltaSol CS/2)

2 A 240 V~ (DeltaSol CS/4)

**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:** tube collector function and thermostat function (DeltaSol CS/4 only), function control, operating hours counter, speed control, drainback option 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

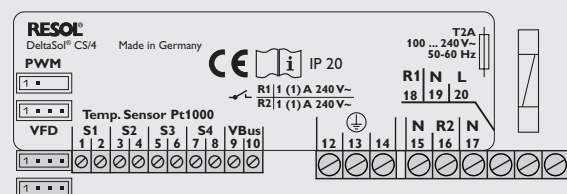
**Protection class:** I

**Ambient temperature:** 0 ... 40 °C

**Pollution degree:** 2

**Dimensions:** 172 x 110 x 46 mm

## 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**