



rosenthal design 



## Differential temperature controller for solar, heating & air conditioning systems

- Adjustable temperature difference 2 ... 16 K, hysteresis 1.6 K
- Antifreeze function adjustable by jumper / DIP switch
- Maximum or minimum temperature limitations adjustable by DIP switches (*DeltaSol®* AX/AX HE)
- Protection against dripping water
- Speed control of a high-efficiency pump with adjustable minimum speed (*DeltaSol®* AX HE)

Manuals available:



### DeltaSol® A series

The *DeltaSol®* A, *DeltaSol®* AX and *DeltaSol®* AX HE controllers are the simplest solution for all differential controls. The version *DeltaSol®* A is equipped with an adjustable temperature difference and an antifreeze function.

The *DeltaSol®* AX presents an extended version which is additionally equipped with an adjustable target temperature for minimum or maximum temperature limitation.

Equipped with an electromechanical relay and a PWM output, the *DeltaSol®* AX HE controller manages the speed control of a high-efficiency pump.

The enclosed silicone sealing cord guarantees a protection against dripping water.

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

#### RESOL *DeltaSol®* A

Price bracket A | Article no.: **115 211 23**

#### RESOL *DeltaSol®* A – Full kit

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

Price bracket A | Article no.: **115 211 33**

Also available as 12V~ and 115V~ versions!

As above, but with minimum or maximum temperature limitation:

#### RESOL *DeltaSol®* AX

Price bracket A | Article no.: **115 211 73**

#### RESOL *DeltaSol®* AX – Full kit

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

Price bracket A | Article no.: **115 211 83**

Also available as 12V~, 12V=, 24V= and 115V~ versions!

As above, but with a PWM output for speed control of a high-efficiency pump:

#### RESOL *DeltaSol®* AX HE

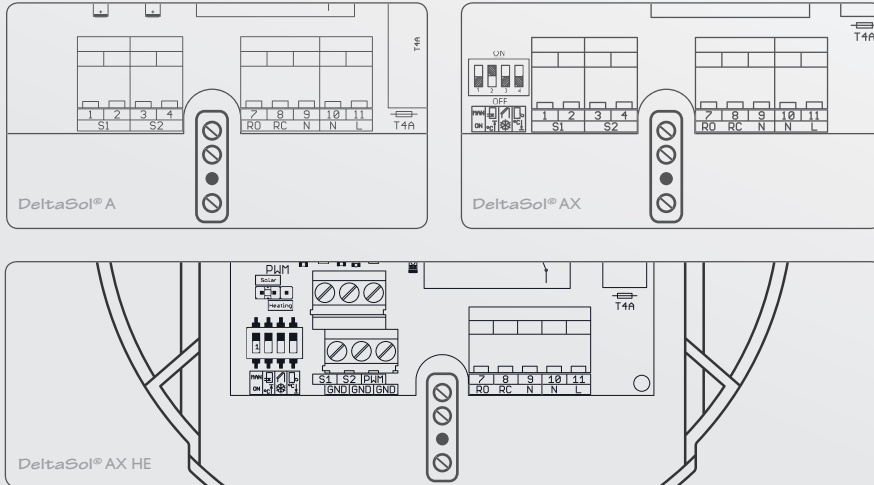
Price bracket A | Article no.: **115 213 43**

#### RESOL *DeltaSol®* AX HE – Full kit

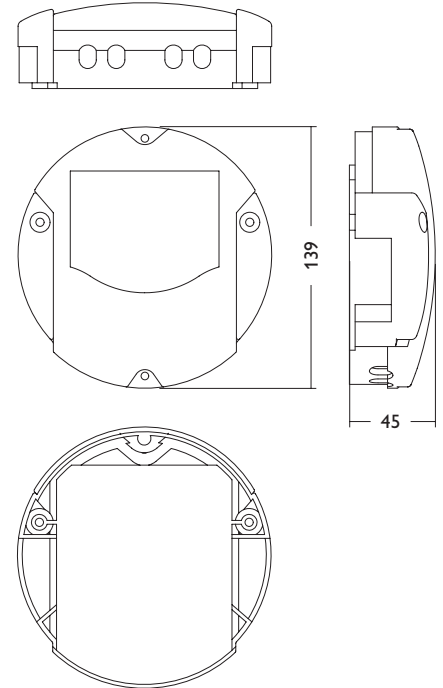
Incl. 2 Pt1000 sensors (1 x FKP6, 1 x FRP6)

Price bracket A | Article no.: **115 213 53**

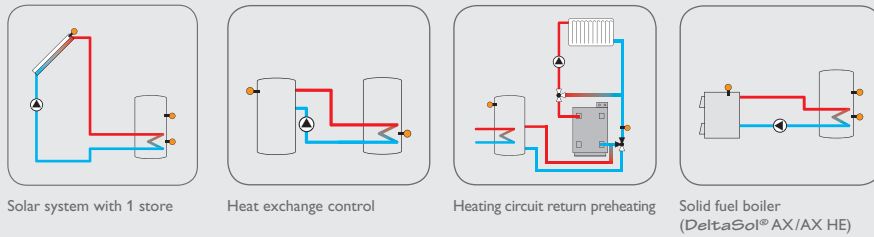
## ELECTRICAL CONNECTION



## TECHNICAL DATA



## EXAMPLES



- Inputs:** 2 Pt1000 temperature sensors
- Outputs:** 1 electromechanical relay (changeover), 1 PWM output (*DeltaSol*<sup>®</sup> AX HE)
- PWM frequency:** 1000 Hz (*DeltaSol*<sup>®</sup> AX HE)
- PWM voltage:** 11.0 V (*DeltaSol*<sup>®</sup> AX HE)
- Switching capacity:**  
4 (1) A 240 V~ (electromechanical relay)
- Total switching capacity:** 4 A 240 V~
- Power supply:** 220 ... 240 V~ (50 ... 60 Hz), 100 ... 240 V~ (50 ... 60 Hz) (*DeltaSol*<sup>®</sup> AX HE)
- Supply connection:** type Y attachment
- Standby:** 1.35 W (*DeltaSol*<sup>®</sup> A), 1.36 W (*DeltaSol*<sup>®</sup> AX), 0.39 W (*DeltaSol*<sup>®</sup> AX HE)
- Mode of operation:** type 1.B action
- Rated impulse voltage:** 2.5 kV
- Functions:** antifreeze function, *DeltaSol*<sup>®</sup> AX/AX HE additionally with maximum or minimum temperature limitation
- Housing:** plastic, PC-ABS and PMMA
- Mounting:** wall mounting
- Indication / Display:** 1 operating control LED
- Operation:** 1 potentiometre and 1 jumper (*DeltaSol*<sup>®</sup> A), 2 potentiometres and 4 DIP switches (*DeltaSol*<sup>®</sup> AX), 3 potentiometres, 4 DIP switches and 1 jumper (*DeltaSol*<sup>®</sup> AX HE)
- Ingress protection:** IP 20 / EN 60529 (with IP 22 seal)
- Protection class:** II
- Ambient temperature:** 0 ... 40 °C
- Pollution degree:** 2
- Dimensions:** Ø 139 mm, depth 45 mm

## ACCESSORIES

**HR230 Auxiliary relay**  
Single-phase, suitable for all RESOL controllers  
Price bracket A | Article no.: **280 002 60**

**HRG2 Housing**  
For up to 2 HR230 Auxiliary relays  
Price bracket A | Article no.: **280 003 10**

**HR230/3 Auxiliary relay**  
Three-phase, suitable for all RESOL controllers  
Price bracket A | Article no.: **280 033 50**

**HRG3 Housing**  
For 1 HR230/3 Auxiliary relay  
Price bracket A | Article no.: **280 033 60**

**RESOL SP10**  
Sensor overvoltage protection  
Price bracket A | Article no.: **180 110 70**