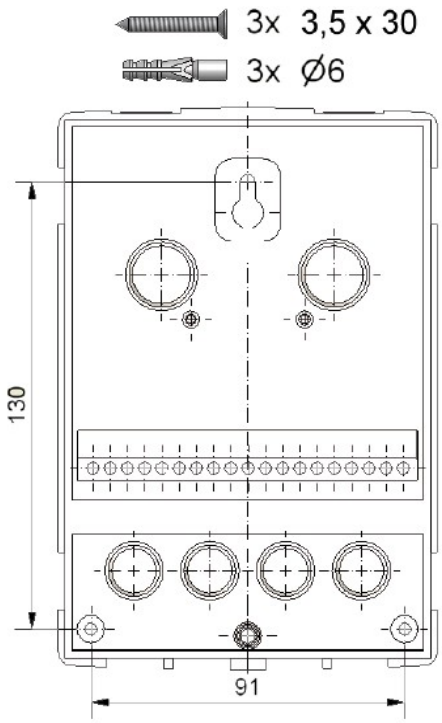
SRS3 E Solar Controller

Application	control of solar and heating systems
Purpose	The Controller controls 3 outputs (2 mech. relays, 1 optional either 0-1V or PWM) and features 4 inputs for Pt 1000 temper. sensors
Code	**13 166**

Electric data	
Power voltage	100 - 240 V AC
Power frequency	50 - 60 Hz
Power input	0,5 - 2,5 VA
Internal fuse	2 A/250 V, slow-blow
IP rating	IP40
Protection class	II
Overvoltage category	II by EN 60664-1
Pollution degree	II by IEC 60664-1

Inputs and outputs	
Mechanical relay	460 VA for AC1/460 W for AC3
0-10 V	load 10 kΩ, tolerance 10 %
PWM	voltage 10 V, frequency 1 kHz
Pt 1000	temperature range -40 to 300 °C
Network connection	CAN Bus

Installation dimensions



Number of inputs and outputs	
Mechanical relay	2 x (R1/R2)
0 -10 V or PWM	1 x (V1)
Pt 1000	4 x (S1 to S4)

Permissible cable lengths for sensors and outputs	
Mechanical relay	< 10 m
0-10 V/PWM	< 3 m
Pt 1000 (outdoor sensors)	< 30 m
Pt 1000 (other sensors)	< 10 m
CAN Bus	< 3 m

Permissible ambient conditions	
Ambient temper. - operatio	0 to 40 °C
Ambient temper. - stock	0 to 60 °C
Air humidity - operation	max. 85 % at 25 °C
Air humidity - stock	no condensation permitted

Other data	
Housing material	ABS (two-part)
Installation	wall mount, panel installation (option
Overall dimensions	163 x 110 x 52 mm
Display	fully graphic, 128 x 64
Preset connections	27 hydraulic variants for solar and heating systems
Clock	battery powered

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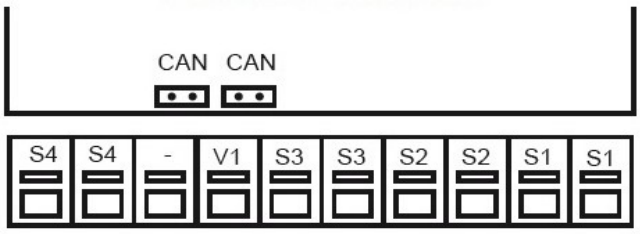
Terminal block wiring diagram

LOW VOLTAGE
- max. 12 V AC/DC



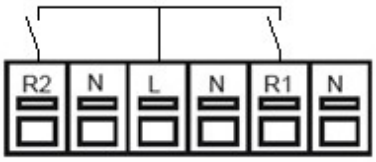
Controller board wiring:

CAN - Can Bus connection

Terminal block wiring:

S4 - temperature sensor (earth)
S4 - temperature sensor
\- - earthing for optional output (0-10 V or PWM) to control speed of ultra high efficiency pumps
V1 - optional output (0-10 v nebo PWM) to control speed of ultra high efficiency pumps
S3 - temperature sensor (earth)
S3 - temperature sensor
S2 - temperature sensor (earth)
S2 - temperature sensor
S1 - temperature sensor (earth)
S1 - temperature sensor

POWER SUPPLY VOLTAGE
- 230 VAC, 50 - 60 Hz



Terminal block wiring:

R2 - mechanical relay 2
N - neutral
L - live
N - mains neutral
R1 - mechanical relay 1
N - neutral

PE protective earth shall be wired to PE metal terminal board.

Correlation between temperature and resistance for Pt 1000 sensors

°C	0	10	20	30	40	50	60	70	80	90	100
Ω	1000	1039	1077	1116	1155	1194	1232	1270	1308	1347	1385