

SIMPLEX SOLAR CONTROL UNIT



Product description

Simplex solar control unit for small to mid-sized solar and heating systems with outputs and inputs for heat quantity meters (volume measuring instrument required), web-connected (module required), as well as actuation of high-efficiency pumps. 10 pre-configured systems available. Numerous functions such as drainback, thermal disinfection and blocking protection can be connected. 2 additional micro buttons for fast access to manual mode and holiday function. Integrated multi-coloured control LED for differentiated message-display of various system conditions. Automatic function check as per VDI guideline 2169.

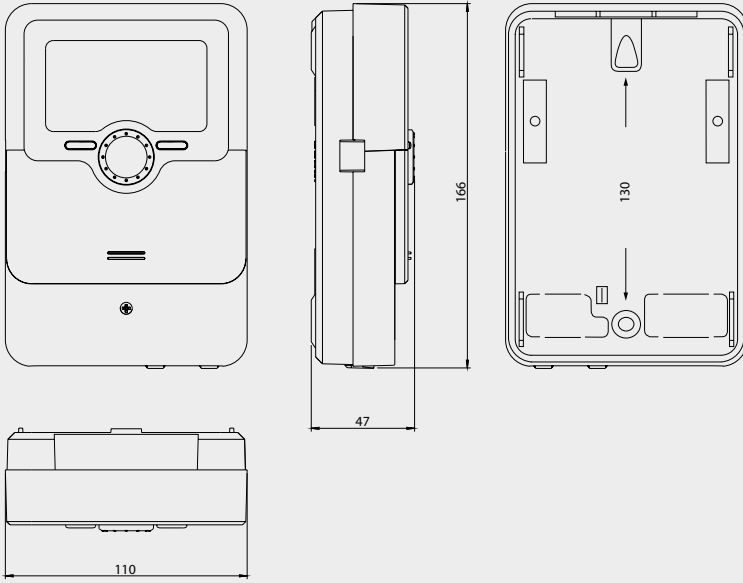
- 3 relay outputs (incl. 1 floating low-voltage relay)
- 4 inputs for temperature sensors Pt1000, Pt500 or KTY
- 1 pulse input for V40
- 2 pulse-duration modulation outputs for speed-controlled actuation of high-efficiency pumps
- Can be connected to the web (module required)
- 10 pre-configured basic systems selectable
- Automatic function check as per VDI 2169

Specifications

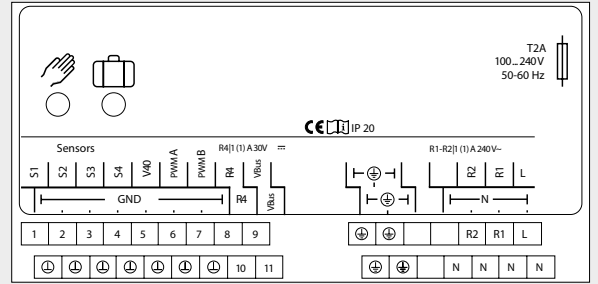
Type	Simplex
Item no.	1510658
Inputs	4 temperature sensors Pt1000, Pt500 or KTY, 1 pulse input V40
Outputs	2 semiconductor relays, 1 floating low-voltage relay, 2 pulse-duration modulation outputs
Pulse-duration modulation frequency	1000 Hz
Pulse-duration modulation voltage	10.5 V
Switching capacity	1 (1) A 240 V~ (semiconductor relay) 1 (1) A 30 V= (floating relay)
Total switching power	2 A, 240 V
Supply	100 - 240 V~ (50 - 60 Hz)
Type of connection	Y
Power consumption	< 1 W (standby)
Working principle	Type 1.B.C.Y
Rated surge voltage	2.5 kV
Data interface	VBus®
VBus® current output	60 mA
Functions	Running time meter, tube collector function, thermostat function, speed control and heat quantity metering, adjustable system parameters and options which can be activated (menu controlled), balancing and diagnostic functions, function control in accordance with VDI 2169
Housing	Plastic, PC-ABS and PMMA
Installation	Wall installation, control panel installation possible
Display	System monitor for system visualisation, 16 segment display, 8 symbols, Control light (Lightwheel®) and backlight
Operation	4 pushbuttons and 1 thumb wheel (Lightwheel®)
Protection class	IP 20 / DIN EN 60529
Protection class	I
Ambient temperature	0 ... 40 °C
Degree of contamination	2
Dimensions	110 x 166 x 47 mm

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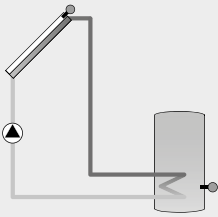
Housing dimensions and installation:



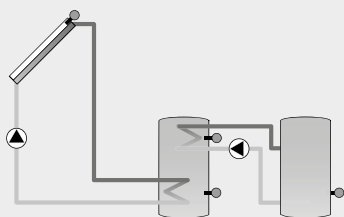
Electrical connection:



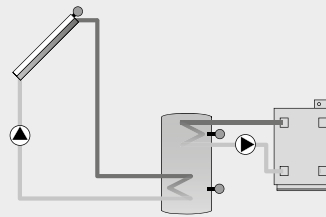
Example applications:



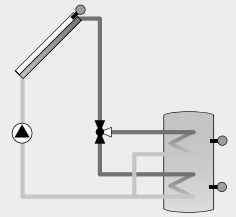
Example 01:
Solar system with 1 tank



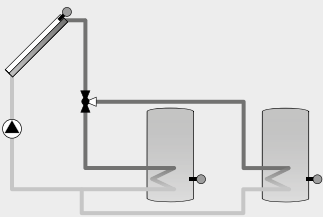
Example 02:
Solar system with 2 tanks
and heat transfer



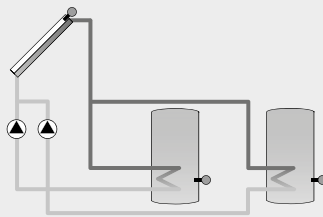
Example 03:
Solar system with 1 tank
and secondary heat source



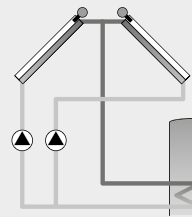
Example 04:
Solar system with 1 tank
and 3-way valve for stratified
charging of tank



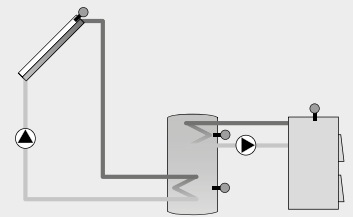
Example 05:
Solar system with 2 tanks
and valve logics



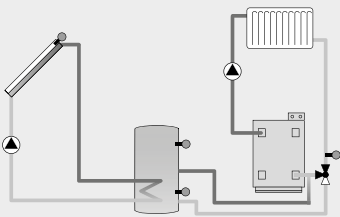
Example 06:
Solar system with 2 tanks
and pump logics



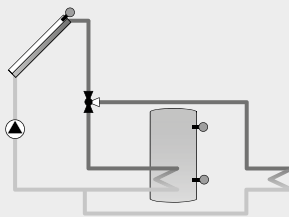
Example 07:
Solar system with
east-west facing roof



Example 08:
Solar system with 1 tank
and solid fuel boiler



Example 09:
Solar system with 1 tank
and return flow increase



Example 10:
Solar system with 1 tank
and heat dump