



SOLAR CONTROLLER SPECIFICATION SHEET

## Applications



#### General:

The SunEarth<sup>®</sup> model **SEProX** differential temperature control is equipped with 26 pre-programmed basic systems for a broad range of 1-and 2 storage systems. Pre-defined functions facilitate system parameterization.

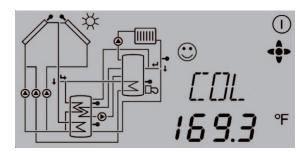
The SunEarth<sup>®</sup> model **SEProX** has been especially developed as an economical solution for multi-storage solar thermal systems. It features a pre-programmed system layouts for a range of 2– and 3– store systems and special function such as an extended priority and loading logic.

With the integrated SD card slot, system data can easily be logged and transferred to a computer.

### **Technical Specifications:**

Model: SEProX	
Dimensions:	(H)7.8" x (W)6.7" x (D)1.7"
Operating Voltage:	100240V~(5060 Hz)
Supply Connection	Type Y Attachment
Standby:	0.58 W
Input:	5 Pt1000 temperature sensors, 1v40 impulse input, 2 Grundfos Direct Sensors <sup>™</sup>
Output:	3 semiconductor relays, 1 electromechanical relay, 2 PWM outputs
PWM frequency:	512 Hz
PWM voltage:	10.8 v
Protection Class:	IP 20/Din 40050
Switching capacity:	1 (1) A 240V~(semiconductor relay) 2 (1) A 240V~(elctromecanical relay)
Total switching cap.:	4 A 240V~
Temp. control class:	I
Mode of operation:	1.B.C.Y action
Rated impulse voltage:	2.5 kV
Data interface:	RESOL VBus <sup>®</sup> , SD card slot
VBus <sup>®</sup> Current supply:	35mA
Housing:	PC-ABS and PMMA
Operation:	7 Push button
Ambient temperature:	32° F104° F

### **Display Overview:**



#### Indication/Display:

System monitoring display for system visualization, 7 segment display with 8 symbols and operating control LED (directional pad) and background illumination.

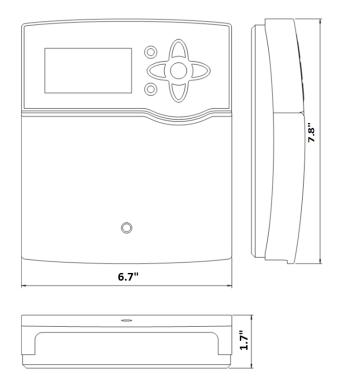
Due to SunEarth's policy of continuous product improvement, specifications are subject to change without notice.





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### **Dimensions:**



# **ENGINEERING SPECIFICATIONS:**

The SEProX differential controller is the ideal economic solution for commercial solar thermal water heating projects where multiple storage, arrays and auxiliary heat units are involved. A specially constructed switching power supply provides maximum efficiency and economic operation. This reduces own consumption to a minimum. The variable input voltage range allows universal use of the device worldwide. The SEProX has four relay outputs, and two PWM outputs for controlling high efficiency pumps. The equipment is rounded off by five Pt1000 sensor for recording temperature and pulses.

The integrated calorimetry system allows the acquisition of numerical information on the solar yields of the system. For more demanding requirements, this can be expanded using an external pulse encoder or an additional Grundfos Direct Sensors<sup>TM</sup>. SEProX controller monitors and controls solar thermal systems with upto two differently oriented collector arrays and a maximum of two domestic hot water or buffer storage tanks. The third controller output can be individually customized for additional controller functions. 26 pre-programmed systems enable universal usage. The SEProX also provides important monitoring and safety functions such as special error messages to quickly troubleshoot faults.



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