# **EXTENDED CONTROLLER RESUN 800X**

**Technical datasheet Nr 33** 

#### • DESCRIPTION:



RESUN 800X is an extended solar controller designed for the control of complex large solar systems up to 2 collector fields with different orientation and up to 4 stores.

It can accommodate up to 12 (15) temperature sensor inputs, 2 digital and 2 analog GDS sensor inputs, 3 pulse counter inputs and 1 solar irradiation

cell input. It can control up to 14 relay outputs and 4 PWM or 0-10V outputs for speed control of high-efficiency pumps.

Its large graphic display offers a clear view of heat quantity measurements and operating graphs. Many pre-programmed functions facilitate the system commissioning. The SD memory card included allows to transfer settings, to record data and to update firmware.

## • SETTINGS:

Before delivery, our technical team supplies\* you the customised settings to meet the requirements of the design office and to ensure optimal use of the required solar system. A hydraulic diagram, a wiring diagram and a setting book are provided\* to facilitate the commissioning and the monitoring of the installation. \*under conditions

### • TECHNICAL SPECIFICATIONS:

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Max. number of collector fields (different orientations)	2	Housing	plastic, PC-ABS, PMM	A
Max. number of stores	5	Mounting	wall mounting (or into patch p	panels)
Temperature sensor input in total	12 (15)	Dimensions	254 x 205 x 47 mm	
Grundfos Direct Sensor input (GDS)	4	Ambient temperature	0 to 40 °C	
Pulse counter input	3	Ingress protection	IP 20 / IEC 60529	
Irradiation sensor input	1	Protection class	I	
Relay outputs in total	14	Switching capacity / relay	semiconductor 1 (1) A 24	0V~
- whose semiconductor (whose speed control)	13 (13)	Switching capacity / relay	potential-free 4 (1) A 240 V~	
- whose potential-free	1	Total switching capacity	6.3 A 240 V~	
PWM outputs (whose convertible to 0-10V)	4 (4)	Absorbed power	< 1 W in standby	
Vbus data interface	yes	Power supply	100240 V~, 5060 H	Ηz
SD card data interface	yes	Compatibility with datalogger ED2 and ED3		yes
Real-time clock	yes	Compatibility with standard and large display panels		yes
Illuminated display	graphic	Compatibility with energy measurement device		yes

#### • MAINS SOFTWARE FUNCTIONS:

Heat quantity measurement with flowmeter	7	Store maximum limitation	yes
Heat quantity measurement with pulse counter	3	Store emergency shutdown	yes
Heat quantity measurement with GDS	VFS/D	Store set temperature	yes
Function block	yes	Cooling functions and cooling mode	yes
Thermostat	yes	Irradiation switch	yes
Additional $\Delta T$ control (ex: heat exchanger)	yes	Backup heating suppression	yes
External heat exchanger	yes	Priority loading	yes
Heat exchange	yes	Store loading in layers	yes
Solar circuit bypass	yes	Thermal desinfection	yes
Irradiation-dependent bypass	yes	Solar parallel relay	yes
Vacuum tube collector	yes	Free parallel relay	yes
Twin pump for solar circuit	yes	Boiler loading	yes
Target temperature	yes	DHW heating	yes
Antifreeze for solar circuit	yes	Circulation	yes
Collector minimum limitation	yes	Error relay	yes
Collector emergency shutdown	yes	Flow rate and pressure monitoring	yes
Heat dump	yes	Function control	yes

#### • AVAILABLE MODEL:

Reference

40030506888

Designation



