

# Datasheet

## RET1000 Smart Room Thermostat

### Features



RET1000 Smart Room Thermostats combine sleek modern design with high performing energy saving control. The well-proportioned dial and clear temperature scale makes setting easy, including an easy to set upper and lower temperature limiting feature. All RET1000 thermostats include stylish backlit LED icons providing clear indication of power and output status. As well as standard on/off control the user can select to benefit from Danfoss chrono-proportional control. Normally set at installation although easy to change via a DIP switch this micro-processor based control system will deliver increased comfort and improved economy.

When chrono-proportional mode is set, the thermostat introduces a fixed cycle rate on the system and then determines the duration of the On and Off periods within each cycle in proportion to load. The control algorithm used to determine the on/off periods uses a proportional + integral (PI) routine to eliminate offset normally associated with on/off or simple proportional control.

Chrono-proportional control significantly improves comfort and generally improves boiler efficiency by optimising water temperature.

- Selectable Chrono Proportional or On/Off control
- User Set Upper and Lower Temperature Limits
- Output On Indication
- Power Indication

### Installer Settings

#### On/Off Control

Switch	Setting	Function
1		On/Off
2		Not Active
3		Not Active
4		Not Active

#### Chrono-Proportional Control

Switch	Setting	Function
1		Chrono
2		3 cycles per hour
3		3 cycles per hour
4		Not Active
or 1		Chrono
2		6 cycles per hour
3		6 cycles per hour
4		Not Active
or 1		Chrono
2		12 cycles per hour
3		12 cycles per hour
4		Not Active

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## Specifications and Ordering Information

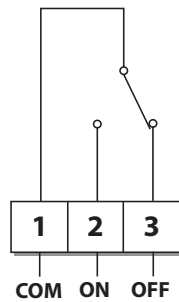
Thermostat Features	RET1000MS	RET1000M	RET1000B
Ordering codes	087N645200	087N645000	087N645100
Product Line	03		
Type	Dial Thermostat		
Power Supply	230Vac +/-15%, 50/60Hz		2.5 – 3VDC (2xAA batteries)
Output	230Vac	Volt free	
Setting temperature range	5-30 °C		
Operating temperature range	0-45 °C		
Switch rating	3A at 230Vac		
Switch type	SPDT type 1B		
Battery lifetime	N/A	Min. 2 years	
IP Rating	IP20		
On/Off Control	Yes		
Chrono-proportional control	Yes		
Dimensions (mm)	H84 x W84 x D37		

## Product Conversion Table

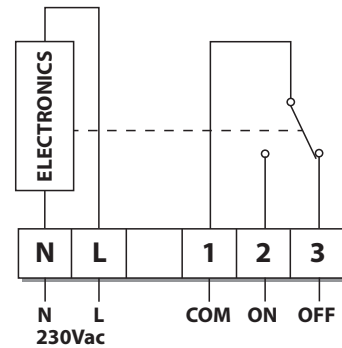
New Part	Can Replace
RET1000MS	RET230, RET230L
RET1000M	RET230VF, RET230VF2
RET1000B	New

## Wiring Details

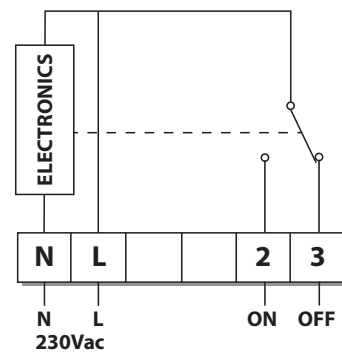
### RET1000B



### RET1000M



### RET1000MS



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**Danfoss Ltd.**  
 Amphill Road  
 Bedford MK42 9ER  
 Tel: 01234 364621  
 Fax: 01234 219705  
 Email: ukheating@danfoss.com  
 Website: www.heating.danfoss.co.uk