



Datasheet

# RET2000 Digital Room Thermostat

Features



RET2000 Digital Room Thermostats combine sleek modern design with high performing energy saving control. Incorporating a generous, easy to read display that clearly shows the room temperature and output status of the thermostat. Further enhanced by an inbuilt backlight this thermostat is also ideal for those with poorer eyesight or where the location is dimly lit. 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.

Additional features include settable upper and lower temperature limits as well as pushbutton lock to avoid tampering. If preferred the temperature display can also be set to show °F.

The RET2000 also has the option to be set as a cooling device, reversing the output logic and including compressor delay settings.

- Selectable Chrono Proportional or On/Off control
- User Set Upper and Lower Temperature Limits
- Output On Indication
- Push Button Lock
- Cooling Option with Compressor delay
- °C or °F Selectable Display

Installer Settings

Heating Control

Function	Setting	Function
Chrono	1	On/Off
6 Cycles	2	3/12 Cycles
3 Cycles	3	12 Cycles
Heating	4	Cooling
°C	5	°F
Keys Unlocked	6	Keys Locked

Cooling Control

Function	Setting	Function
No Comp Delay	1	Comp Delay
4 Min Delay	2	2 Min Delay
Not Active	3	Not Active
Heating	4	Cooling
°C	5	°F
Keys Unlocked	6	Keys Locked

# Datasheet

# RET2000 Digital Room Thermostat

## Specifications and Ordering Information

Thermostat Features	RET2000MS	RET2000M	RET2000B
Ordering codes	087N644200	087N644000	087N644100
Product Line	03		
Type	Digital 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

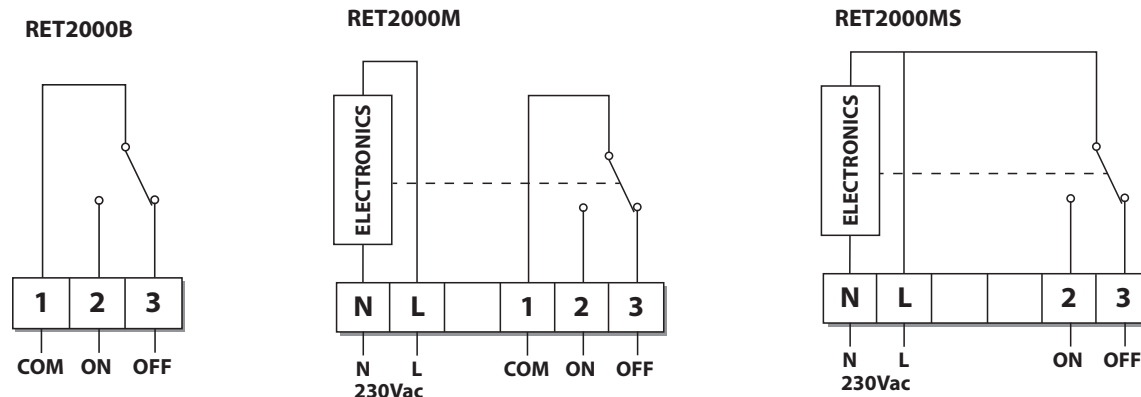
New Part	Can Replace
RET2000MS	New
RET2000M	RET-M
RET2000B	RET-B, RT51, RET-B-LS

## ErP Class



ERP Class		
The products represented within this document are classified according to, and allow completion of, the Energy Related Product (ErP) Directive System Package fiche and the ErP system data label. ErP Labelling obligation is applicable from 26th September 2015.		
ErP Class	Product Function and ErP Description	Additional efficiency gain
IV	<b>TPI Room Thermostat, for use with on/off output heaters</b> An electronic room thermostat that controls both thermostat cycle rate and in-cycle on/off ratio of the heater proportional to room temperature. TPI control strategy reduces mean water temperature, improves room temperature control accuracy and enhances system efficiency.	2%

## Wiring Details



## Danfoss Ltd.

Amphill Road  
Bedford MK42 9ER  
Tel: 01234 364621  
Fax: 01234 219705  
Email: [ukheating@danfoss.com](mailto:ukheating@danfoss.com)  
Website: [www.heating.danfoss.co.uk](http://www.heating.danfoss.co.uk)

Danfoss can accept no responsibility for possible errors in catalogues, brochures, and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without consequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.