

Datasheet

RET2000MD Delayed Start Room Thermostat

Features



RET2000MD Digital Room Thermostat combines 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.

The RET2000MD is an intelligent room thermostat that incorporates an additional energy saving delay start feature, which delays the start-up of the heating dependent upon how close to set-point the room temperature is at the time heating is scheduled to turn on.

Under most load conditions, this feature reduces the number of hours per day that the system runs, without creating any discomfort. This feature can, if necessary, be cancelled if the user wishes to override the delay period.

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.

- Intelligent Delayed Start
- Selectable Chrono Proportional or On/Off control
- User Set Upper and Lower Temperature Limits
- Output On Indication
- Push Button Lock
- °C or °F Selectable Display

Installer Settings

RET2000MD

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

Datasheet

RET2000MD Delayed Room Thermostat

Specifications and Ordering Information

Thermostat Features	RET2000MD
Ordering codes	087N644500
Product Line	03
Type	Digital Thermostat
Power Supply	230Vac, 50/60Hz
Output	Volt free
Setting temperature range	5-30 °C
Operating temperature range	0-45 °C
Switch rating	3A at 230Vac
Switch type	SPDT type 1B
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
RET2000MD	RET-MD

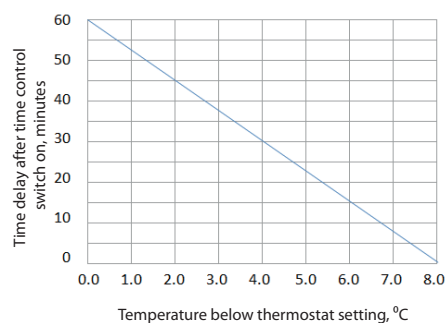
ErP Class



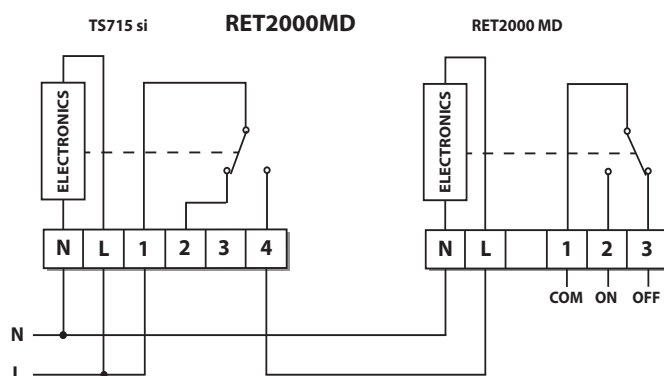
ERP Class		
The products represented within this document are classified according to, and allow completion of, the Energy Related Product (ErP) Directive System Package fiche and the ErP system data label. ErP Labelling obligation is applicable from 26th September 2015.		
ErP Class	Product Function and ErP Description	Additional efficiency gain
IV	TPI Room Thermostat, for use with on/off output heaters 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%

Delay Curve

The RET2000MD intelligent room thermostat delays the start-up of the heating system by a variable time period that is determined by the difference in the room temperature compared to the temperature set on the thermostat. The smaller the difference, the longer the delay before the heating is allowed to turn on. A built-in limit ensures that the delay period cannot exceed 60 minutes.



Wiring Details



Danfoss Ltd.

Ampthill Road
Bedford MK42 9ER
Tel: 01234 364621
Fax: 01234 219705
Email: ukheating@danfoss.com
Website: 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.