Datasheet

RET2000B-RF + RX1-S RF Digital Room Thermostat

Features

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 RET2000B-RF includes an input for a remote sensor. Configurable for either a remote air temperature sensor, floor limit sensor or window switch providing further control flexibility.

RET2000B-RF Digital Room Thermostat and RX1-S Single Channel Receiver provide installation convenience and location flexibility for your home heating control. This is combined with sleek modern design and high performing energy saving control in a feature packed RF thermostat.
 Incorporating a generous, easy to read display that clearly shows the room temperature and output status of the thermostat and bright status indicators on the receiver. The backlit display is ideal for those with poorer eyesight or in locations which are 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.

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 RET2000B-RF also has the option to be set as a cooling thermostat, 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
• Remote Sensor Input
• 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

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%

ErP Product Class **4**

Specifications and Ordering Information

Thermostat	RET2000B-RF
Ordering code - for set c/w single channel receiver	087N644400
Ordering code - without receiver	087N644300
Product line	03
Type	Digital Thermostat
Power supply	2.5 - 3VDC (2xAA batteries)
Maximum range	30 meters
Operating frequency	433.92MHz
Setting temperature range	Heating 5-30ºC Cooling 16-36ºC
Operating temperature range	0-45ºC
Battery lifetime	Min. 2 years
IP Rating	IP20
On/Off Control	Yes
Chrono-proportional control	Yes
Construction	EN60730-2-9
Dimensions (mm)	H84 x W84 x D37

Receiver	RX1-S
Ordering Code	087N777300
Number of Channels	1
Power Supply	230Vac +/-15% 50/60Hz
Output Relay	SPDT type 1B
Relay Rating	3A (1) at 230Vac
IP Rating	IP40
Construction	EN60730-1
Dimensions (mm)	H84 x W84 x D28

Product Conversion Table

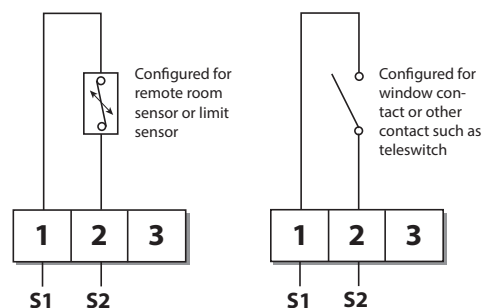| New Part	Can Replace
RET2000B-RF + RX1-S	RET B-RF + RX1
Notes: (1) RET2000B-RF + RX1-S is not backward compatible with RET B-RF + RX1, in case of replacement both thermostat and receiver will require changing (2) Ordering code 087N6444 is for a factory paired set. The RET2000B-RF and RX1-S can also be purchased seperately and paired at installation (3) Ensure there are no large metal objects between the thermostat and receiver as this will interfere with the RF signal	

Wiring Details

RX1-S
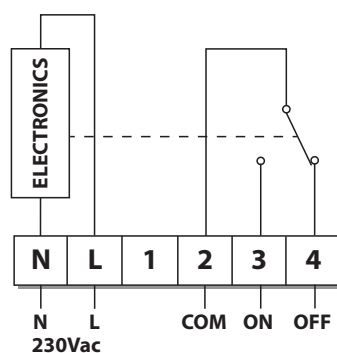
RET2000B-RF Remote Sensor Input