

Datasheet

RET MD Intelligent Room Thermostat

Features



RET-M series of room thermostats combine the ease of use of a setting dial with accuracy and advanced features, including LCD display, that are only available from micro-processor based controller. The LCD display, that normally shows actual room temperature, changes momentarily to show set temperature whenever the setting dial is moved. Styled upon the RET room thermostat, the RET-M series can be set up by the installer to provide either traditional on/off control or more sophisticated chrono-proportional control for increased comfort and economy.

If set in chrono-proportional mode, the thermostat imposes 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 also significantly improves comfort and generally improves boiler efficiency by reducing mean water temperature.

The RET-MD is an intelligent room thermostat that incorporates an 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 time switch is scheduled to turn on the heating system.

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.

A version without delayed start, type RET-M, is also available. This model offers all the features of the battery powered RET-B but is mains powered.

Both models are ideal for use with combination boilers and can be installed without the need for complicated wiring or commissioning.

- Intelligent heating control for increased fuel economy.
- Micro-processor accuracy.
- Setting dial with LCD temperature display.
- Wallplate construction for ease of installation.

Installer Settings

RET-MD with Delay Start

Sw.	Setting	Function
1	<input type="checkbox"/>	Delay Start enabled*
2	<input type="checkbox"/>	On/Off
3	<input type="checkbox"/>	Not active
4	<input type="checkbox"/>	°C (change for °F)
or 1	<input type="checkbox"/>	Delay Start enabled*
2	<input type="checkbox"/>	Chrono
3	<input type="checkbox"/>	3 cycles per hour
4	<input type="checkbox"/>	°C (change for °F)
or 1	<input type="checkbox"/>	Delay Start enabled*
2	<input type="checkbox"/>	Chrono
3	<input type="checkbox"/>	6 cycles per hour
4	<input type="checkbox"/>	°C (change for °F)

* Change to disable

RET-M (no Delay Start Feature)

Set for cooling operation

Set for heating operation

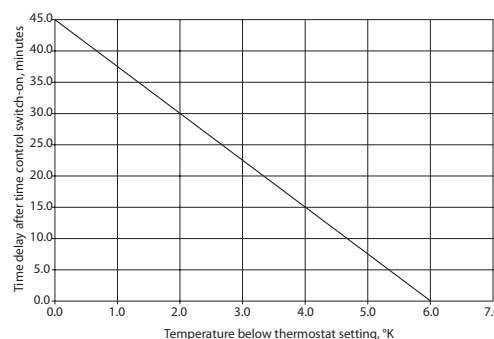
Sw.	Setting	Function	Sw.	Setting	Function
1	<input type="checkbox"/>	Cool	1	<input type="checkbox"/>	Heat
2	<input type="checkbox"/>	No compressor delay	2	<input type="checkbox"/>	On/Off
3	<input type="checkbox"/>	Not active	3	<input type="checkbox"/>	Not active
4	<input type="checkbox"/>	°C (change for °F)	4	<input type="checkbox"/>	°C (change for °F)
or 1	<input type="checkbox"/>	Cool	or 1	<input type="checkbox"/>	Heat
2	<input type="checkbox"/>	Compressor delay active	2	<input type="checkbox"/>	Chrono
3	<input type="checkbox"/>	2 min compressor delay	3	<input type="checkbox"/>	3 cycles per hour
4	<input type="checkbox"/>	°C (change for °F)	4	<input type="checkbox"/>	°C (change for °F)
or 1	<input type="checkbox"/>	Cool	or 1	<input type="checkbox"/>	Heat
2	<input type="checkbox"/>	Compressor delay active	2	<input type="checkbox"/>	Chrono
3	<input type="checkbox"/>	4 min compressor delay	3	<input type="checkbox"/>	6 cycles per hour
4	<input type="checkbox"/>	°C (change for °F)	4	<input type="checkbox"/>	°C (change for °F)

Specification and Ordering Details

Features	RET-MD	RET-M
Code No	087N726200	087N726400
Temperature Range	5 - 30°C	
Setting knob and LCD display		●
Delay start feature dependent upon proximity to set-point	●	
Delay start override button and LED status indicator	●	
Chrono-proportional or On/Off control		●
Heat or cool operation, including compressor delay timer		● (1)
Selectable Fahrenheit or Centigrade scaling		●
Delay start select / disable feature	●	
Output relay contact rating	10-250 Vac, 50/60 Hz, 3 (1) A	
Switching action	1 SPDT	
Power supply	230 Vac ± 10%, 50/60 Hz	
Maximum ambient temperature	45°C	
Dimensions (mm)	85 wide x 86 high x 42 deep	
(1) Compressor delay only available if thermostat is set to cool operation.		

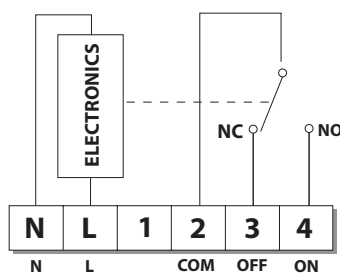
Delay Curve

The RET-MD 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 45 minutes.



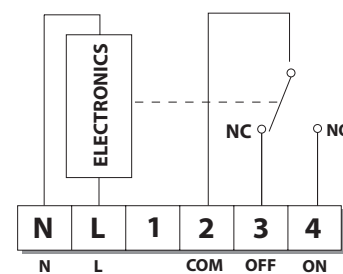
Wiring

RET-MD



Input from Time Control

RET-M



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