

## Data Sheet

# RET & TP

## Electronic Room Thermostats

## Application



RET1001



RET2001



TP5001

RET & TP room thermostats are typically used in conjunction with a boiler and wall hung radiator heating systems. However, they can also be used in other heating systems where reference room temperature is used to switch the heat source either directly or via zone valves.

All the products featured in this datasheet are boiler plus compliant, providing Load Compensation control to gain accurate temperature control and improved boiler efficiency. It is also possible to select simple on/off control mode instead of load compensated

### Functions

#### Room Thermostat, RET1001

By turning the dial to the desired setpoint temperature, optimal thermal comfort in the room is achieved. The thermostat setting scale also includes a frost protect setting allowing for minimal energy consumption while avoiding damage from freezing temperatures and a standby/off position.

When a temperature is chosen a green LED confirms that the device is powered and operational. The LED turns red when there is a demand for heat and the output relay is on.

#### Additional features:

- Max. and min. temperature limit settings via mechanical limiting facility

#### Room Thermostats, RET2001

With RET2001, temperature selection is digital from the setting ring that circles the large easy to read backlit display. Like the dial product RET2001 includes frost protection feature as well as holiday mode with setback temperature for energy saving while you are away.

#### Additional features:

- Max. and min. temperature limit settings
- User selectable frost and holiday temperatures
- RF Wireless control with receiver (RF variant only)
- Standby button

#### Programmable Room Thermostats, TP5001

The TP5001 offers all the features from the RET variants in addition it has full heating schedule control. A schedule can be set to suit the user's heating demands, this can significantly reduce the cost of heating the home by only heating the building when necessary.

The TP5001 can be set to 5-2Day schedule or 24Hr depending on user preference. If required, the schedule can be deactivated, and the device can be used manually like a room thermostat. 4 event times can be selected (2 heating periods) for morning and evening.

#### Additional features:

- Optimised and Delayed Start
- Clock in 12-hour or 24-hour format
- Boiler service interval timer (400days)

The RET & TP room thermostats combine modern design with efficient heating control, ease of operation and high quality construction to help provide reliable home comfort.

Ordering

Product	Type	Supply voltage	Output	Code no.
RET1001M - V2	Dial Room Thermostat	230 V AC	V/F Relay	<b>087N6461</b>
RET2001M - V2	Digital Room Thermostats	230 V AC	V/F Relay	<b>087N6476</b>
RET2001B		3 V DC	V/F Relay	<b>087N6471</b>
RET2001RF		3 V DC*	433.92Mhz RF*	<b>087N6473</b>
RET2001RF+RX1-S - V2		3 V DC*	433.92Mhz RF*	<b>087N6477</b>
RX1-S-V2**	RF Receiver with relay	230 V AC	V/F Relay	<b>087N7775</b>

\* For RF variants supply voltage and output above relates to the thermostat. Each device is supplied with a single channel receiver which requires 230 V AC supply voltage and has a V/F Relay output.

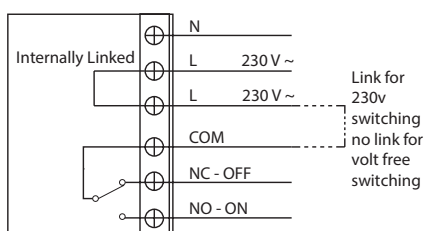
\*\* Compatible with TPOne RF, TP5001 RF and RET2001 RF thermostats only.

Technical specifications

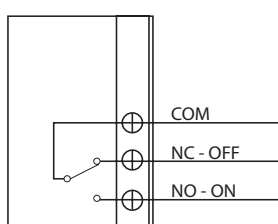
Feature	RET1001M-V2	RET2001M-V2	RET2001B	RET2001RF
Type	Dial with LED indicator	LCD display with push buttons		
Setting temperature range	5 - 30° C	5 - 35° C		
Operating temperature range	0 - 40° C			
Fault indication	-	Yes		
LCD backlight	-	Yes		
Output	Volt free			RF 433.92Mhz
Max RF Range in building	-			0.5 - 30m
Switch rating	3 A (1) at 230Vac			-
Switch type	1x SPDT Type 1B			-
Battery life	-			Min 2 years
Power supply	230 V AC ±10 %, 50/60 Hz		3 V DC Battery 2 x AA alkaline)	
IP class	IP30 (installed)			
ErP class	Class IV (efficiency gain 2%)			
Approval	CE marking, EN 60730			
Control pollution situation	Degree 2			
Rated impulse voltage	4kV			
Software classification	A			
Storage conditions	Relative Humidity 5 - 95% Ambient (storage and shipping) -10 to 60°C			

Wiring connections

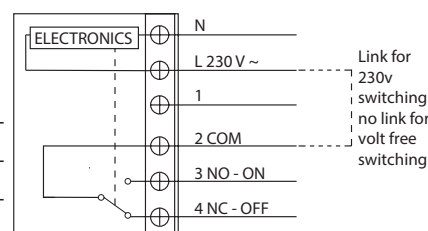
RET1001M / RET2001M - V2



RET2001B



RX1-S - V2



Ordering

Product	Type	Supply voltage	Output	Code no.
TP5001M - V2	Digital Programmable Room Thermostats	230 V AC	V/F Relay	<b>087N7935</b>
TP5001B		3 V DC	V/F Relay	<b>087N7931</b>
TP5001RF		3 V DC*	433.92Mhz RF*	<b>087N7933</b>
TP5001RF+RX1-S - V2		3 V DC*	433.92Mhz RF*	<b>087N7936</b>
RX1-S - V2	RF Receiver with relay	230 V AC	V/F Relay	<b>087N7775</b>

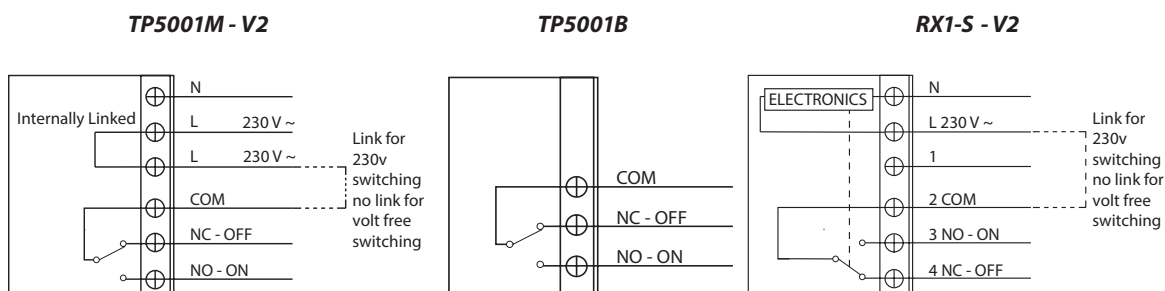
\* For RF variants supply voltage and output above relates to the thermostat. Each device is supplied with a single channel receiver which requires 230 V AC supply voltage and has a V/F Relay output.

\*\* Compatible with TPOne RF, TP5001 RF and RET2001 RF thermostats only.

Technical specifications

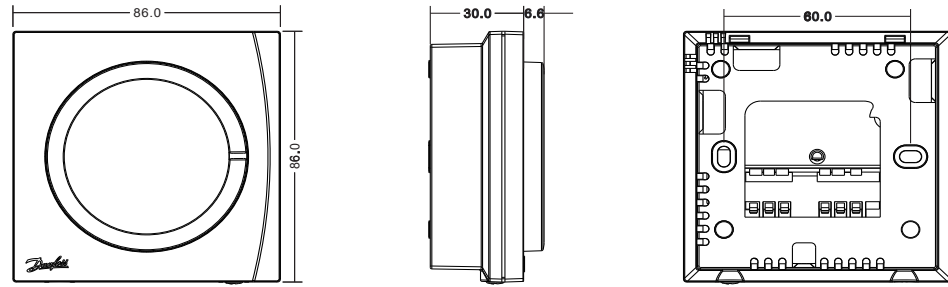
Feature	TP5001M-V2	TP5001B	TP5001RF	RX1-S V2
Type	LCD display with push buttons			RF Receiver
Setting temperature range	5 - 35° C			-
Operating temperature range	0 - 40° C			
Fault indication	Yes			-
LCD backlight	Yes			-
Output	Volt free		RF 433.92Mhz	Volt free
Max RF Range in building	-		0.5 - 30m	
Switch rating	3 A (1) at 230Vac		-	3 A (1) at 230Vac
Switch type	1x SPDT Type 1B		-	1x SPDT Type 1B
Battery life	-	Min 2 years		-
Power supply	230 V AC ±10 %, 50/60 Hz	3 V DC Battery 2 x AA alkaline)		230 V AC ±10 %, 50/60 Hz
IP class	IP30 (installed)			
Industry standard back plate				Yes
ErP class	Class IV (efficiency gain 2%)			-
Approval	CE marking, EN 60730			
Control pollution situation	Degree 2			
Rated impulse voltage	4kV			
Software classification	A			
Storage conditions	Relative Humidity 5 - 95% Ambient (storage and shipping) -10 to 60°C			

Wiring connections

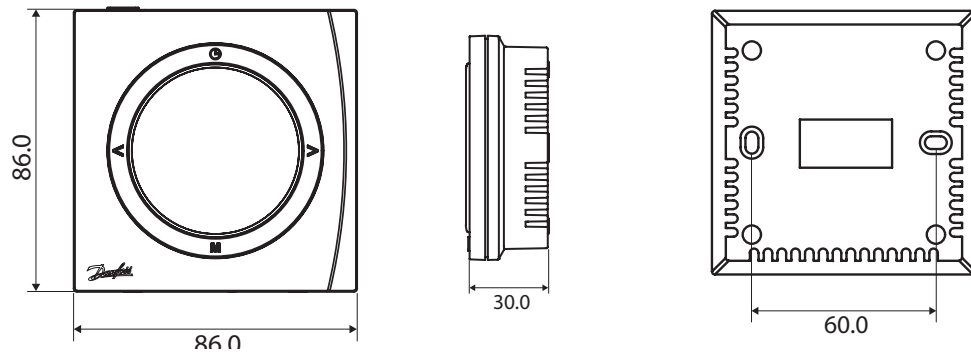


Dimensions

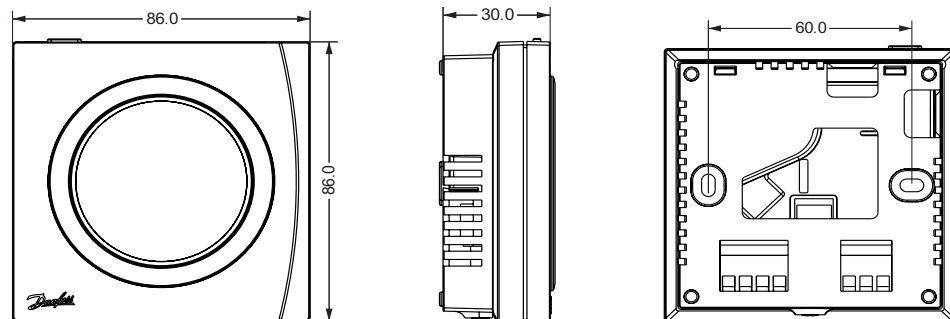
RET1001M - V2



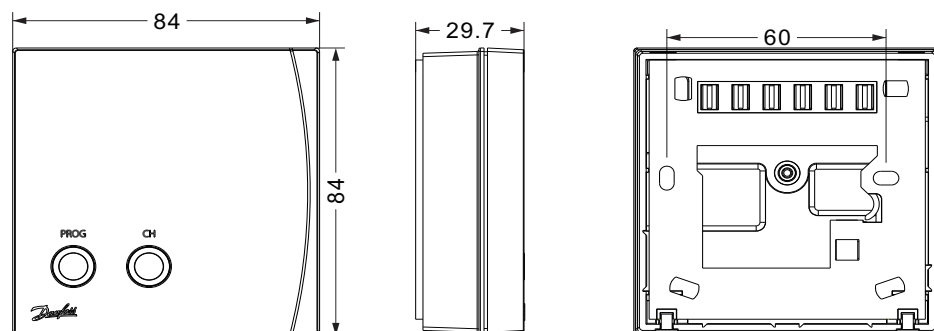
RET2001B, RET2001RF, TP5001B, TP5001RF



RET2001M - V2, TP5001M - V2



RX1-S V2



Danfoss Limited

Climate Solutions • danfoss.uk • 0330 808 6888 • customerservice.uk@danfoss.com  
 Danfoss Ltd, Oxford Road, UB9 4LH Denham, UK

Any information, including, but not limited to information on selection of product, its application or use, product design, weight, dimensions, capacity or any other technical data in product manuals, catalogues descriptions, advertisements, etc. and whether made available in writing, orally, electronically, online or via download, shall be considered informative, and is only binding if and to the extent, explicit reference is made in a quotation or order confirmation. Danfoss cannot accept any responsibility for possible errors in catalogues, brochures, videos and other material. Danfoss reserves the right to alter its products without notice. This also applies to products ordered but not delivered provided that such alterations can be made without changes to form, fit or function of the product.

All trademarks in this material are property of Danfoss A/S or Danfoss group companies. Danfoss and the Danfoss logo are trademarks of Danfoss A/S. All rights reserved.