Danfoss

Data Sheet

RET2001OT-V2 & TPOne-OT
Electronic Room Thermostats

SP
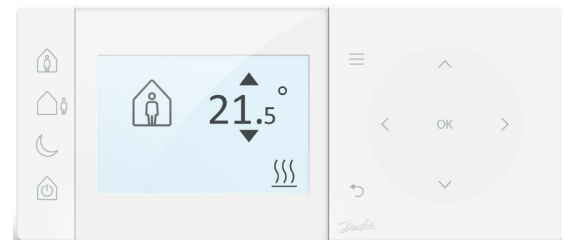**OpenTherm®**

Application

RET2001OT-V2

TPOne-OT

RET & TP room thermostats are used typically in gas boiler and wall hung radiator heating systems. The RET2001OT-V2 & TPOne-OT are sophisticated room thermostat which provide modulating control of OpenTherm compatible gas boilers.

These thermostats exchange data with the boiler they control as opposed to on/off commands. This type of control, in addition to providing closer, more accurate room temperature control, also ensures that the flow temperature from the boiler is modulated down to as low a level as prevailing load permits. Compared to simple on/off thermostats RET2001OT-V2 & TPOne-OT significantly increasing the proportion of the boiler operating time that is spent in economic condensing mode.
These thermostats are fully compliant with the OpenTherm communications protocol including low load regulation.

Functions
Room Thermostat, RET2001OT-V2
Temperature selection is digital from the setting ring that circles the large easy to read backlit display. RET2001OT-V2 includes a frost protection feature and 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**

Programmable Room Thermostat, TPOne-OT
TPOne delivers new levels of user friendly interaction. The flexible dot matrix display uses easy read icons and text information to provide feedback on status and settings to the installer and user. When the display is activated the backlight illuminates and guides are given on what buttons will adjust temperatures or navigate the setting menus.

The schedule setup is flexible and users can choose 24hr, 5-2day or full 7day programming with optional 1, 2 or 3 heating periods.

Additional TPOne features include:
• **Seperate user & installer setting menus**
• **Holiday scheduler**
• **Upper and lower temperature limits**
• **Capacitive touch button control**
• **Push button lock**
• **°C or °F Selectable display**
• **Audible button click (selectable)**
• **Frost protect temperature setting**
• **Clear text display**
• **Bolier service interval timer (400 days)**

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

TPOne Comfort Modes

TPOne Programmable Room Thermostat introduces the quick access Scenario interface. To the left of the display are 4 dedicated user buttons. As a programmable device heating is controlled by a preset schedule but sometimes our schedules change intermittently so we have made it easy for the user to adapt their heating to suit.

The Home, Away & Asleep buttons allow the user to quickly change the current setting to either save energy or deliver comfort when needed.

These manual overrides stay until the next scheduled heating change so no need to remember to switch back to automatic control.

The additional standby button also gives the control to stop the heating completely, this will save energy when airing the home or can be used to switch off during Summer months without having to change the schedule. Standby remains until the user chooses to switch back on.

Datasheet   **RET2001OT-V2 & TPOne-OT** Electronic Room Thermostats

Ordering

Product	Type	Supply voltage	Output	Code no.
RET2001OT - V2	Room Thermostat	24 V DC BUS	Data	**087N6478**
TPOne-OT	Programmable Room Thermostat	24 V DC BUS & 3VDC (2XAA batteries)	Data	**087N7859**

Technical specifications

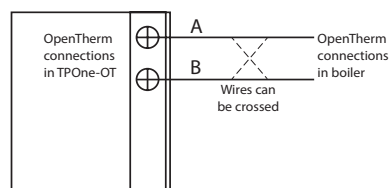| Feature	RET2001-OT	TPOne-OT
Type	LCD backlit display with push buttons	Dot Matrix LCD Display with text menu and capacitive touch buttons
Setting temperature range	5 - 35°C	
Operating temperature range	0 - 40°C	
Fault indication	Yes	
LCD Backlight	Yes	
Output	Data 24 V DC BUS	
Battery Life	-	Min 2 years
Power Suppy	24 V DC power line from boiler	24 V DC power line from boiler & 3VDC (2XAA batteries)
Wiring	conductor size minimum 0.5mm²	
ErP class	Class V (efficiency gain 3%)	
IP rating	IP30 (installed)	
OpenTherm software version	v4.01	
Low load control	Yes	
Approval	CE marking, EN60730-2-9	
Control pollution situation	Degree 2	
Storage conditions	Relative Humidity 5 - 95% Ambient (storage and shipping) -10 to 60°C	
Software classification	A	
Terminals	Max 2.5mm² wires	

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.

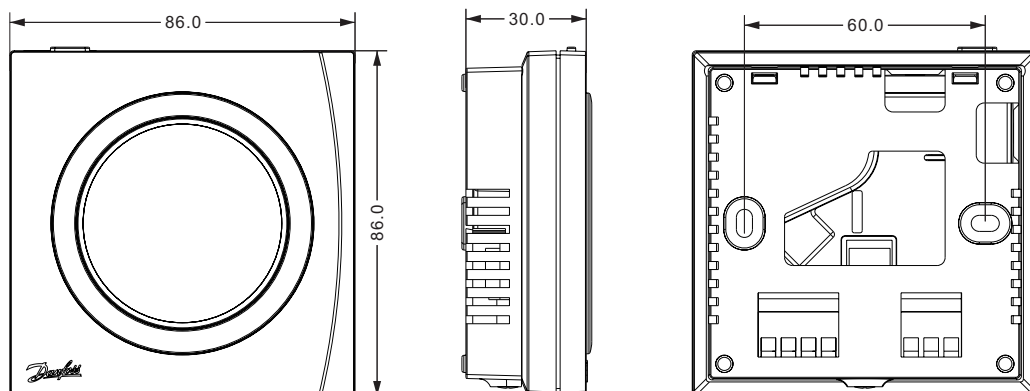| ErP Class	Product Function and ErP Description	Additional efficiency gain
ErP Product Class **5**	**Modulating Room Thermostat, for use with modulating heaters.** An electronic room thermostat that varies the flow temperature of the water leaving the heater dependent upon measured room temperature deviation from room thermostat set point. Control is achieved by modulating the output of the heater.	3%

Wiring connections

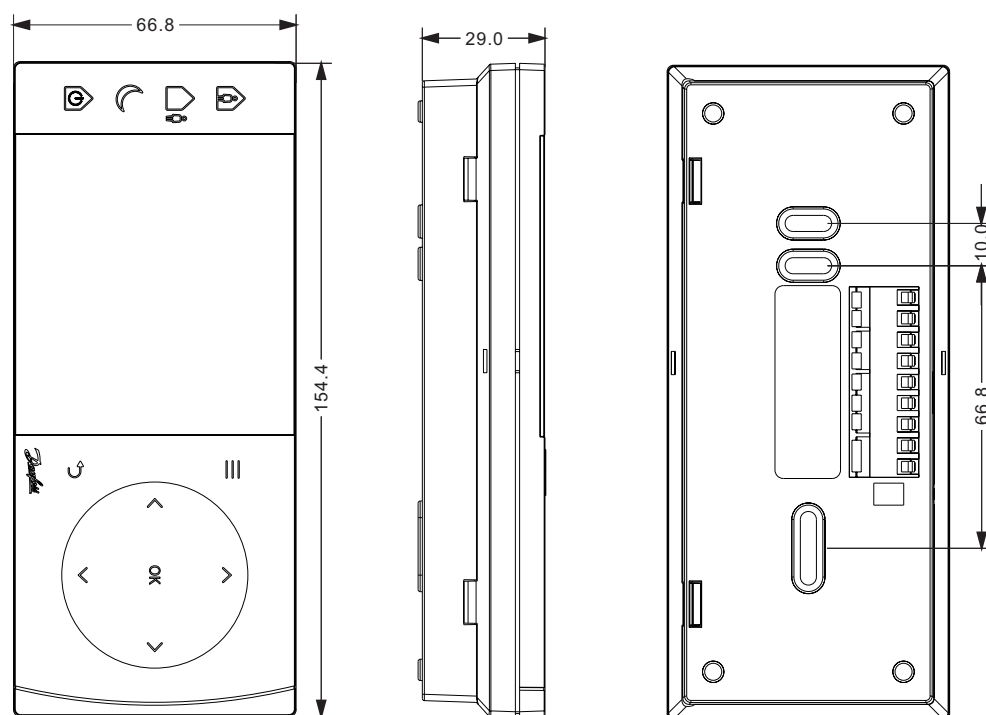*RET2001OT-V2*

TPOne-OT

Important - To avoid damage to Boiler and Thermostat, connect only to OpenTherm connections on boiler, do not connect to any other power source.

Dimensions   **RET2001OT-V2**

TPOne-OT