Datasheet

TPOne ™ Series Programmable Room Thermostat

Features

TPOne Programmable Room Thermostat platform 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 the what buttons will adjust temperatures or navigate the setting menus.

Chrono Proportional, Load Compensation control is the default heat regulation system that will deliver increased comfort and improved economy over standard on/off control. Standard On/Off can also be selected.

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.

For **TPOne** we have redesigned the heating startup options. Standard startup is default giving instant heat at the scheduled time. New dynamic Delayed and Optimised start features are also selectable. Delayed start will pause the heating startup at the scheduled time dependant on the difference between ambient and required temperature which will decrease energy usage. Optimised start will monitor the difference between ambient and required temperature and will calculate the best time to start heating to hit setpoint at the scheduled time.

Both features dynamically adjust according to performance accuracy each day to ensure most acurate control and remove the need for manual setting and adjustment.

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
• Selectable Domestic Hot Water Channel (Mains Variant only)
• Clear Text Display (7 Languages)
• External Sensor/Window Switch input
• Boiler Service Timer

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   **TPOne™ Programmable Room Thermostat**

Specifications and Ordering Information

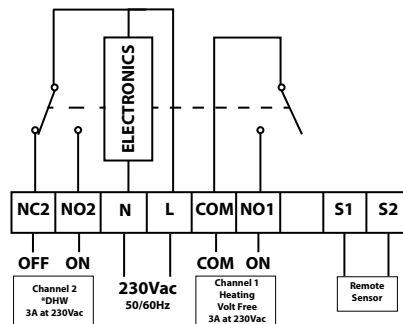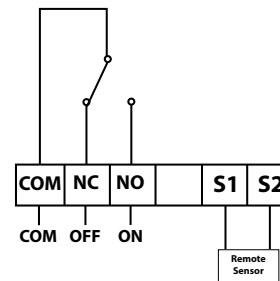| Thermostat Features	TPOne-M	TPOne-B	TPOne-RF + RX1-S
Ordering codes	087N785200	087N785100	087N785400
Code without receiver	-	-	087N785300
Product Line	03	03	03
Type	Programmable Thermostat		RF Programmable Thermostat
Power Supply **TP**One	230Vac, 50/60Hz	2.5 - 3VDC (2x AA Alkaline Batteries)	
Battery Life	-	Min 2 years	
Power Supply RX1-S	-		230Vac, 50/60Hz
Output Channel 1	Volt free, SPDT type 1B		Volt free, SPDT type 1B (RX1-S)
Switch Rating Channel 1	3A at 230Vac		3A at 230Vac (RX1-S)
Output Channel 2	3A at 230Vac	-	
Operating Frequency	-		433.92MHz
Maximum Range	-		30 meters
Setting temperature range	5-35 °C		
Operating temperature range	0-45 °C		
IP Rating	IP20		
On/Off Control	Yes		
Chrono-proportional control	Yes		
Dimensions (mm)	H66 x W155 x D30		
Dimensions (mm) RX1-S	-		H84 x W84 x D28

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%

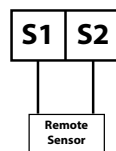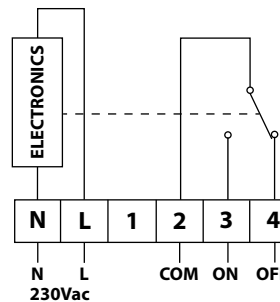**ErP Product Class 4**

Wiring Details

TPOne-M

TPOne-B

TPOne-RF

RX1-S