SMT-131
Digital Thermostat

General Description

The Smart Temp SMT-131 Digital Thermostat is perfect for all applications requiring a simple to use thermostat and where energy savings is paramount, such as when the thermostat is used in the hotel industry, retirement homes or in the rental markets. There is no reason a thermostat should be permitted to waste energy simply because a schedule is not automatically turning the thermostat on or off.

Additionally, a thermostat must also look like it belongs on the wall and blend in with the most modern décor. Further, it must be that simple to use that you should never need to read a manual or call for help to set your comfort level.

To meet these ambitious goals Smart Temp has developed the SMT-131 thermostat. A wall thermostat that is equally capable of controlling a small HVAC system in a retirement home or hotel room as it is controlling a sophisticated air handling system in a large building.

An impressive list of input / output options are provided in the SMT-131 that further enhance its capabilities. Integrated PIR and door or window inputs are provided that will automatically alter the thermostat's control set point and mode to eliminate energy wastage if the room or office is found unoccupied or if doors and windows are left open.

Analogue control outputs are also provided as well as relay outputs so that the latest variable capacity systems as well as modulating valves can be controlled if necessary. This includes support for DC fan motors with minimum and maximum fan speed limit control.

Optional corridor displays can be connected should the SMT-131 be used in the hotel industry. The HOT-243 corridor display will show room status and show the guest's need for housekeeping at the touch of a button on the SMT-131 touch screen.

Integrated Modbus RTU permits the SMT-131 to be remotely accessed by a building BMS or the Smart Temp Wi-Fi module for true remote control and accessibility.

Features

Bright Backlit Touch Screen

Intuitive Operation

Relay & 0-10V Equipment Control Outputs

Single or Three Fan Speed Control

Heat Pump or Heat Cool Control Logic

0-10V DC Fan Control

Extensive Installer Options Menu

PIR, Window and Door Status Inputs

Inbuilt Logic for Room Occupancy

Integrated Modbus RTU Communications

Optional Remote Sensor(s) Available
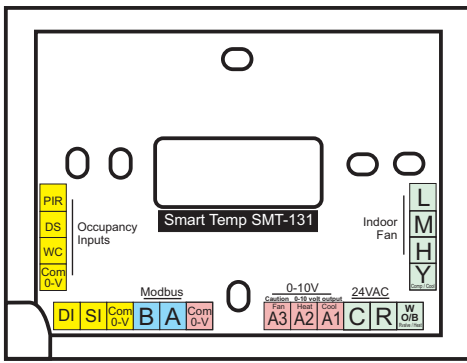
Switched Occupancy Input

Optional Door Station Input (shown)

CE & Ctick Certified

Designed and Built by Smart Temp Australia

Comprehensive 3 Year Warranty RTB

Smart Temp

Terminal Wiring

Yellow   Ancillary Inputs

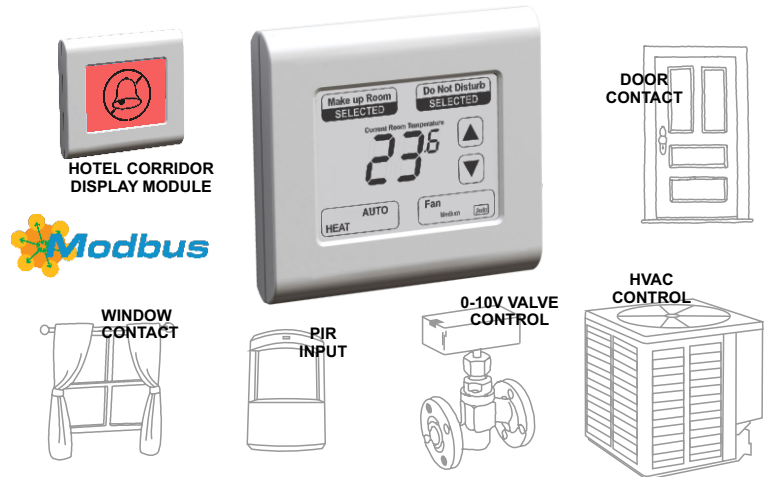|	
PIR	PIR Movement Detector
DS	Door Switch
WC	Window Contact
DI	Digital Input (Selectable Functions)
SI	Sensor input (Selectable Functions)
Com 0-V	Common Reference

Blue   Modbus

B	Data B
A	Data A

Pink   0-10V Outputs

A3 Fan	Digital Fan Control
A2 Heat	Heat Valve Control
A1 Cool	Cool Valve Control
Com 0-V	Common Reference

Green   Equipment Relays

L	Low Fan Speed
M	Medium Fan Speed
H	High Fan Speed
Y	Cool (or Compressor)
W O/B	Heat (or Reversing Valve)
R	Control Active 24+
C	Control Common 24-

Complete System Overview

The SMT-131 is the hub of a sophisticated comfort and energy control system. With inputs to monitor the status of doors and windows as well as movement from movement detectors, the SMT-131 will ensure the temperature is maintained perfectly, but only when it is appropriate to do so.

A comprehensive installer menu of more than 40 installer options can be set that permits the performance of the SMT-131 to be perfectly tuned for each and every project. Options such as temperature control limits can be set to prevent the user requesting unrealistic target temperatures. Auto off timers and digital inputs ensure the SMT-131 is OFF when it needs to be off - further saving energy. Full integration into building management systems is offered via the on-board Modbus data port providing full control and accessibility remotely.

HOTEL CORRIDOR DISPLAY MODULE

DOOR CONTACT

WINDOW CONTACT

PIR INPUT

0-10V VALVE CONTROL

HVAC CONTROL

Condensed Modbus Objects

Equipment Status	5 Relay Coils & all 0-10V Output
Room Temperature	0.1°C Resolution
Guest Set Point	0.5°C Resolution
Thermostat Status	On / Off / Mode
Auto Set Temperature Reset	On/Off and Value Adjustment
Fan Speed	Off / 1 / 2 / 3 / Auto + 0-10V
Fan Mode	Auto / Manual / Ventilation
Fan Purge Period	0-10 Minutes
Unoccupied Heat & Cool Set	0.5°C Resolution
Unoccupied Fan Mode	Off / 1 / 2 / 3 / Auto
Room Occupancy Status	Empty / Occupied
All Digital Input Status	PIR / Door / Window DI & SI
Occupancy Input Delays	For PIR / Door & Window Inputs
Door Station Status	Make Up Room / Do Not Disturb
Contact Reception	On / Off
Native Temperature Display	C / F
Switch Settings	Binary of all Switches
Heating / Cooling Called	0.1°C Resolution
O-10V Heat & Cool Output	Output Voltage 0.1V Resolution
Min & Max 0-10V Limits	For Fan Analogue Output
Reception Call Chime	On / Off
High Temperature Limit	5°C To 35°C
Low Temperature Limit	6°C To 36°C
Equipment Hysteresis	0.5°C To 1.5°C
Auto Off Period	Off to 10 Hours
Unit Run Time Log	1/10 Hours Resolution
Back Light Options	Off / On / High /Low / Auto
Modbus Baud	4.8 / 9.6 /19.2 / 38.4k

Condensed Specification

Power	24V +/- 20% 50/60 Hz
Relay Outputs	5 Relays - Fan Low/Med/Hi/ Heat/Cool
Analogue Outputs	Heat / Cool Fan
Touch Method	"XY" Resistive
Back Light	White LED
Back Light Life	40,000 Hours to Half Intensity
Operating Temperature	-5°C To 50°C
Operating Rh	0 To 95% (Non Condensing)
Relay Voltage	24VAC @ 1 Amp Max
0-10 Outputs	5ma Max
Sensor Accuracy	+/- 0.5°C at 25°C (Calibratable)
Timer Accuracy	+/- 2.5 Minimum Per Year
Warranty	3 Years RTB
Approvals	CE & Ctick
Communications	Modbus RTU 4.8 / 9.6 /19.2 / 38.4k
Size	103mm X 113mm X 26mm

Designed and Manufactured by Smart Temp Australia 2015

Authorised Distributor

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