

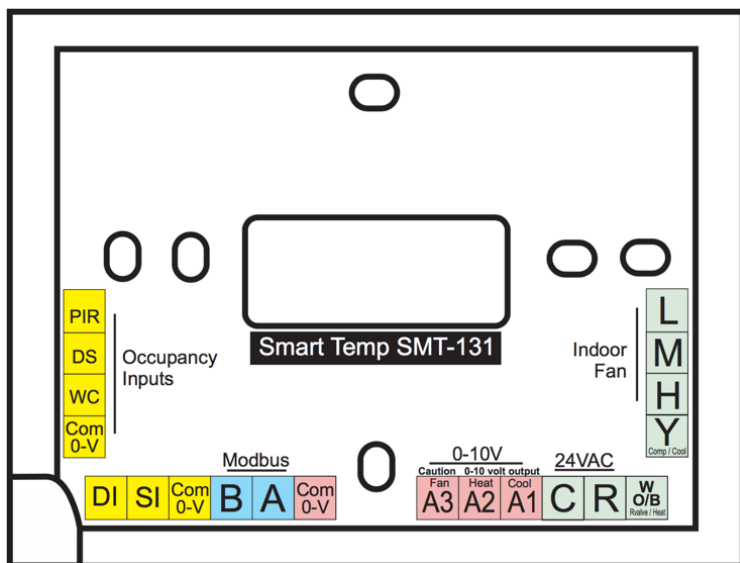
Room temperature controller touch screen SH-SMT131



The SH-SMT131 offers a big bright display that provides feedback of the air conditioning status. A user can easily turn the air conditioning on and off and adjust temperature/fan control. If the optional occupancy module is fitted, the SH-SMT131 will automatically change to a low energy consumption mode when the room is vacant. The optional outside door station module further adds to the capability of the SH-SMT131 by providing the user with the ability to call for housekeeping or request that they are not disturbed.

The SH-SMT131 provides a total solution for air conditioning control and by adding optional logic modules, the SH-SMT131 capabilities are extended.

Wiring Diagram



Specification:

Power Supply	24V AC/DC 50/60 Htz +/- 15%
Operating Temp.	0°C to 50°C (32°F to 122°F)
Storage Temp.	0°C to 65°C (32°F to 150°F)
Operating Humidity	0-95% (Non Condensing)
Sensor Accuracy	+/- 1°C at 25°C (Calibratable)
Timer Accuracy	+/- 2.5 Min Per Year
Backlight	White LED (Other Colours Available Upon Request)
Display Type	STN Touch Panel
Relay Rating	30VAC @ 1Amp Max
0-10V Output Load	10mA Max
Control Range	5°C to 30°C (41°F to 86°F)
Memory Type	Non Volatile - Settings Do Not Require Battery Backup
Communications	Modbus RTU 4 .8K / 9.6K / 19.K / 38,4K 1 Stop Bit, 8 Data Bits, 1 Start Bit, No Parity
Plastic	ABS / Poly Blend – UV Stabilised and Fire Rated
Size	113 x 103 x 25mm
Display Size	69.5 x 46.3mm

Features:

- Bright Backlight 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 & 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)

Terminal Wiring:

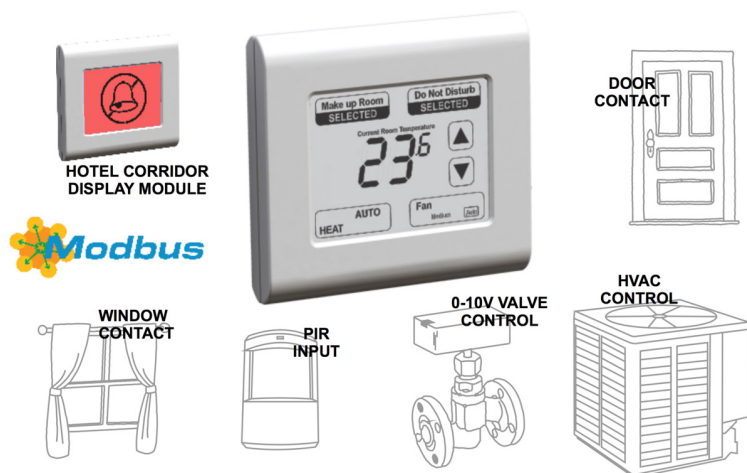
Yellow	Ancillary inputs	Pink	0-10V outputs
PIR	Movement detector	A3 Fan	Digital fan control
DS	Door switch	A2 Heat	Heat valve control
WC	Window contact	A1 Cool	Cool Valve control
DI	Digital input	Com 0-V	Common reference
SI	Sensor input		
Com 0-V	Common reference	Green	Equipment relays
Blue	Modbus	L	Low fan speed
B	Data B	M	Medium fan speed
A	Data A	H	High fan speed
		Y	Cool (or compressor)
		W O/B	Heat (or reverse valve)
		R	Control active 24+
		C	Control common 24-



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Complete system overview



Installer Options:

LCD Display Units	Deg C / Deg F
High Set Temperature Limit	5 to 45°C
Low Set Temperature Limit	6 to 46°C
Dead Band	+/- 0 to 5°C
Heat / Cool Span	0,5 to 1,5°C
Fan Purge	Off to 10 Mins (1 Min Steps)
0-10V Heat Span	0,5 to 5°C
0-10V Cool Span	0,5 to 5°C
Auto Off Timer	0 (Off) to 35 °C
Unoccupied Heat Set	0 (Off) to 35 °C
Unoccupied Cool Set	5 to 50°C (Off)
Unoccupied Fan Mode	Low / Med / High / Auto
Backlight Level	Active / Standby
Remote Sensor	Remote / Average
Digital Input Options	Bell / Occupied
Fan Rest Mode	Refresh / Hold
Modbus Address	1-255
Modbus Baud	4,8K, 9,6K, 19,2K, 38,4K

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 Mins
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
Hall Door Station Status	Make Up Room / Do Not Disturb
Contact Reception	On / Off
Native Temp Display	C / F
Switch Settings	Binary Of All Switches
Heating/Cooling Called	0.1°C Resolution
0-10V 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