

## T2000 Series – Line Voltage Fan Coil Unit Thermostat

### GENERAL DESCRIPTION

The T2000 thermostats provide heating, cooling and ventilating control for year-round air-conditioning units in commercial, industrial or residential installations.

There are model for cooling only, heating only and heating-cooling fan coil system can be integrate with the manual or remote heat-cool changeover control.

Integral with heavy duty slide switches provide HIGH-MED-LOW fan speed selection and ON-OFF or HEAT-OFF-COOL system control.

T2000 series thermostat is suitable for 2-pipe or 4-pipe fan coil application, which can be fitted with the VB5000 zone valve and VA7010 actuator.

These thermostats are used for low / line voltage application, and typical uses include fan coils, electrical heaters and air handling units



Figure 1: T2000AAC-0C0 Shown



Figure 2: T2000HHC-0C0 Shown

### FEATURES

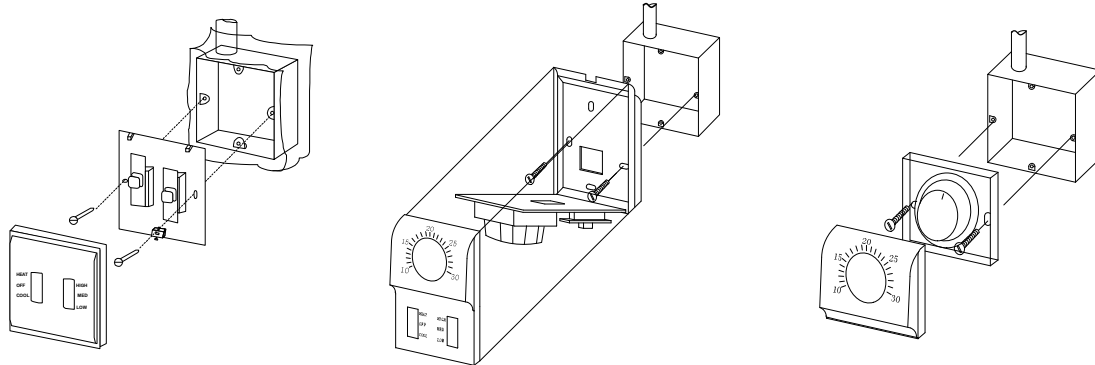
- Rust-proof plastic base and cover
- System "OFF" position breaks all circuits
- No leveling and vibration problems

Features and Benefits	
<input type="checkbox"/> <b>Close, 0.5 to 0.8 °C (1 to 1-1/2 °F) Typical Differential</b>	Provides steady, consistent control without large temperature swings
<input type="checkbox"/> <b>No Anticipator</b>	Saves time, reduces commissioning costs
<input type="checkbox"/> <b>High-impact Plastic Enclosure</b>	Provides durability in commercial environments
<input type="checkbox"/> <b>One-piece Construction</b>	Allow easy installation
<input type="checkbox"/> <b>System Off Position</b>	Breaks all circuits with one switch
<input type="checkbox"/> <b>Locking Cover</b>	Prevents tampering
<input type="checkbox"/> <b>Gas-filled Sensing Element</b>	Ensures repeatability
<input type="checkbox"/> <b>Adjustable Temperature Set point Knob</b>	Allows unit to be field calibrated; sets adjustment limits to range extremes
<input type="checkbox"/> <b>Mercury Free Sensor</b>	Avoids leveling and vibration problems

## MOUNTING

T2000 is designed for surface wall mounted, using two #8 drywall screws and anchors for drywall installation and can be mounted on 75 x 75 x 35mm wall electrical box.

Recommended mounting level is 1.5 meter above floor finishing level. Avoid mount where thermostat can be affected by drafts, radiant heat from the sun or other sources of heat.



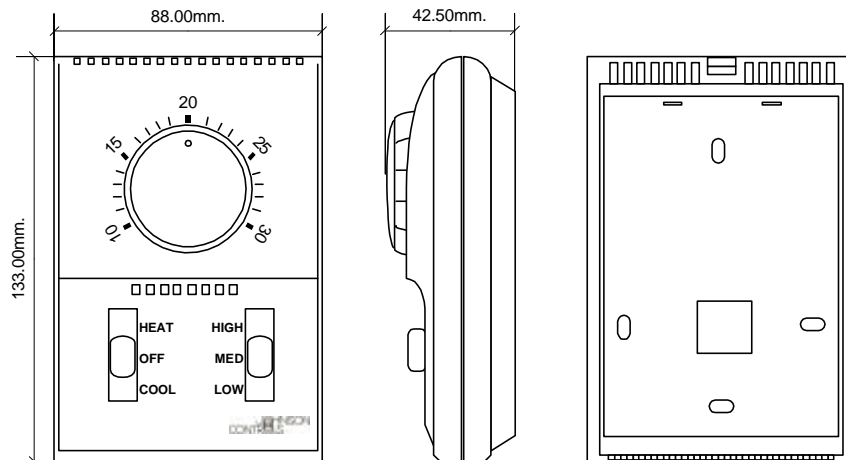
Y62x Installation

T2000-xAx Installation

T2000HHx Installation

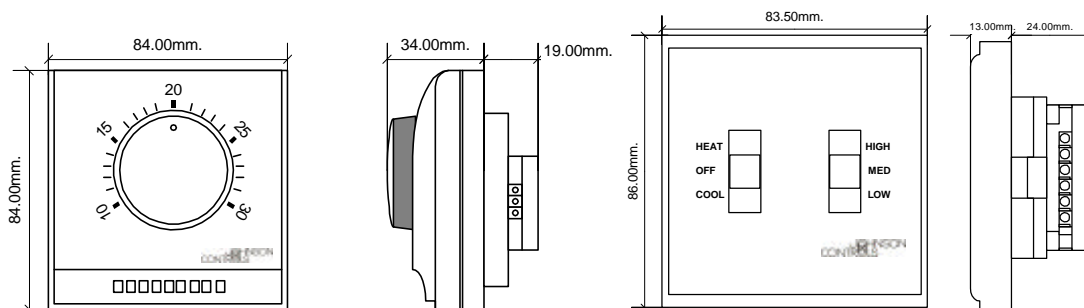
## DIMENSIONS

### T2000xxx-0C0



### T2000HHx-0C0

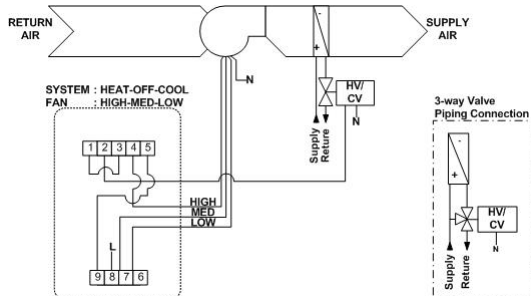
### Y62x-0



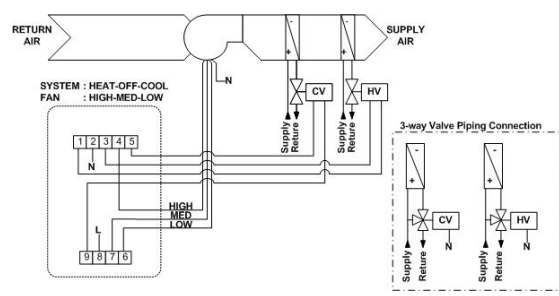
## TYPICAL APPLICATIONS AND WIRING DIAGRAM

### T2000AAx-0C0

Heating/Cooling Only 2-pipe System with 3-speed Fan Control

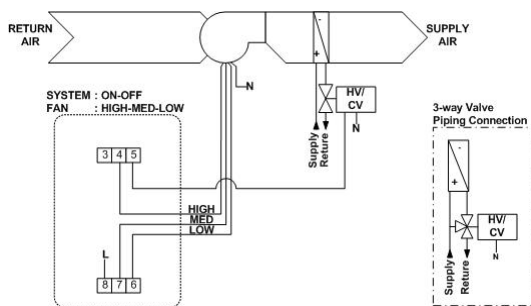


Heating & Cooling 4-pipe System with 3-speed Fan Control

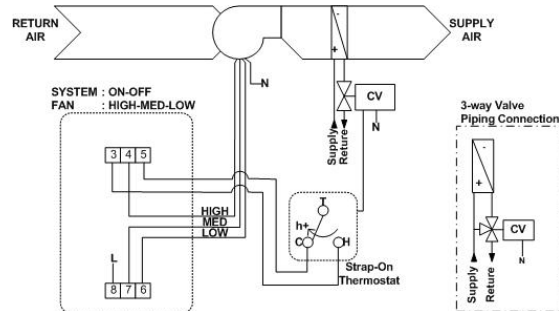


### T2000EAx-0C0

Cooling Only 2-pipe System with 3-speed Fan Control

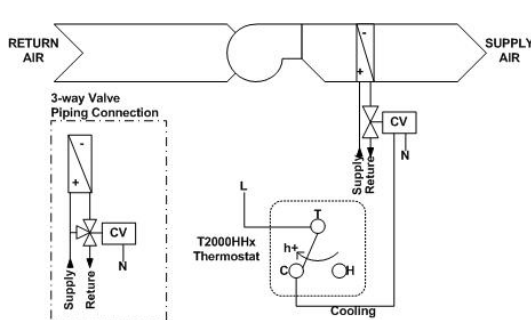


Heating/Cooling Only 2-pipe System with 3-speed Fan Control and Automatic Changeover

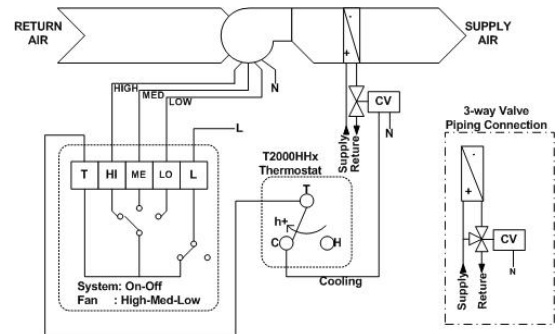


### T2000HHx-0C0

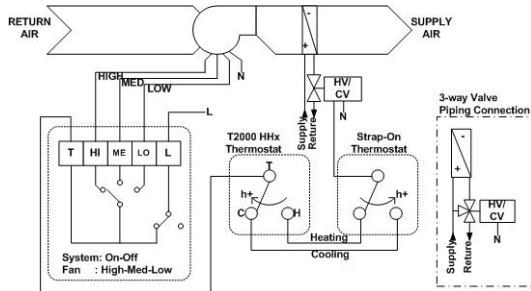
Cooling Only 2-pipe System



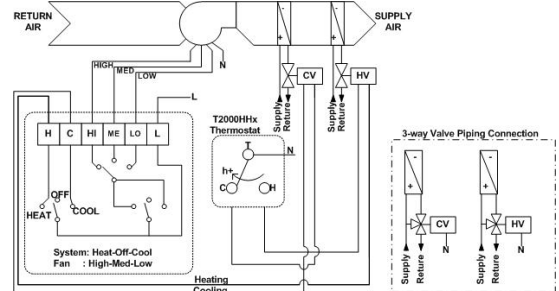
Cooling Only 2-pipe System with 3-speed Control Switch



2-pipe System with Automatic Changeover



Heating & Cooling 4-pipe System with 3-speed Control Switch



## Ordering Information

### T2000 Series Thermostat

Model	System Switch	Fan Control	Temperature Scale	Power Supply	Standard
<b>T2000AAC-0C0</b>	Heat-Off-Cool	High-Med-Low	10 - 30°C	110 & 230V	None
<b>T2000EAC-0C0</b>	On-Off	High-Med-Low	10 - 30°C	110 & 230V	None
<b>T2000HHC-0C0</b>	None	None	10 - 30°C	110 & 230V	None
<b>T2000AAF-0C0</b>	Heat-Off-Cool	High-Med-Low	50 - 86°F	110 & 230V	None
<b>T2000EAF-0C0</b>	On-Off	High-Med-Low	50 - 86°F	110 & 230V	None
<b>T2000HHF-0C0</b>	None	None	50 - 86°F	110 & 230V	None
<b>T2000AAT-0C0</b>	Heat-Off-Cool	High-Med-Low	10 - 30°C / 50 - 86°F	24V	None
<b>T2000EAT-0C0</b>	On-Off	High-Med-Low	10 - 30°C / 50 - 86°F	24V	None
<b>T2000HHT-0C0</b>	None	None	10 - 30°C / 50 - 86°F	24V	None

## EQUIPMENT LISTS

### Valve and Actuator

Valve Model	Body Type	Size	End Connection	Kv.	Actuator Model	Power Supply
<b>VB-5471-1060</b>	2-way	15mm	BSP Parallel	1.6	<b>VA-7010-8503</b>	230V, 50/60Hz
<b>VB-5471-2080</b>	2-way	20mm	BSP Parallel	3.5	<b>VA-7010-8503</b>	230V, 50/60Hz
<b>VB-5471-3090</b>	2-way	25mm	BSP Parallel	5.5	<b>VA-7010-8503</b>	230V, 50/60Hz
<b>VB-5871-1060</b>	3-way	15mm	BSP Parallel	1.6	<b>VA-7010-8503</b>	230V, 50/60Hz
<b>VB-5871-2080</b>	3-way	20mm	BSP Parallel	3.5	<b>VA-7010-8503</b>	230V, 50/60Hz
<b>VB-5871-3090</b>	3-way	25mm	BSP Parallel	5.5	<b>VA-7010-8503</b>	230V, 50/60Hz

Specification for Valve and actuator, refer to VB-5000 Valve and VA-7010 Product Bulletin for details.

## ACCESSORIES

### Y620 Fan Control Switch

Model	Y621-0	Y622-0
<b>System Switch</b>	On-Off	Heat-Off-Cool
<b>Fan Switch</b>	High-Med-Low	High-Med-Low

## SPECIFICATIONS

### T2000 Series Thermostat

Product Code	T2000AAx-0C0	T2000EAx-0C0	T2000HHx-0C0
System Switch	Heat-Off-Cool	On-Off	None
Fan Switch	High-Med-Low	High-Med-Low	None
Differential	1°K at 20°C (68°F)		
Range	10 - 30°C (50 - 86°F)		
Sensing Element	Unipole gas filled bellows		
Material & Finish	Base & Cover – ABS Plastic in white colour		
Electrical Ratings	13 A, 120V 50/60 Hz 6.5 A, 220/240V 50/60 Hz		
Wiring Connections	Screw-in terminals, capable of accepting wires up to 1.5mm <sup>2</sup>		
Pollution Acceptance	Normal Situation		
Ambient temp. Limits	10 - 50°C		
Enclosure (prot. Class)	IP20		
Shipping Weight	0.22kg		
Standard	None	None	None

### Y620 Fan Control Switch

Product Code	Y621-0	Y622-0
System Switch	On-Off	Heat-Off-Cool
Fan Switch	High-Med-Low	High-Med-Low
Material & Finish	Moulded ABS Plastic with UL94-V0 in white colour	
Electrical Ratings	10(1) A, 120V 50/60 Hz	
Wiring Connections	Screw-in terminals, capable of accepting wires up to 1.5mm <sup>2</sup>	

*The performance specifications conform to acceptable industry standard. For application to conditions beyond these specifications, consult the local Johnson Controls office. Johnson Controls, Inc., shall not be liable for damages resulting from misapplication or misuse of its products.*

*All data are subject to change without notice.*



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