

## TEC21x6(H)-2 Series N2 Networked Thermostats with Two Outputs, Dehumidification Capability, and Three Speeds of Fan Control

### Description

The TEC21x6(H)-2 Series Thermostats are N2 networked devices that provide control of two- or four-pipe fan coils, cabinet unit heaters, or other equipment using on/off, floating, or proportional 0 to 10 VDC control input, three speeds of fan control, and dehumidification capability. The technologically advanced TEC21x6(H)-2 Series Thermostats feature a Building Automation System (BAS) N2 Bus communication capability that enables remote monitoring and programmability for efficient space temperature control. Specific models are available to accommodate commercial and hospitality applications.

The TEC21x6(H)-2 Series Thermostats feature an intuitive user interface with backlit display that makes setup and operation quick and easy. The thermostats also employ a unique, Proportional-Integral (PI) time-proportioning algorithm that virtually eliminates temperature offset associated with traditional, differential-based thermostats.

Refer to the *TEC21x6(H)-2 Series N2 Networked Thermostats with Two Outputs, Dehumidification Capability, and Three Speeds of Fan Control Product Bulletin (LIT-12011079)* for important product application information.

### Features

- BAS N2 open communication — provides compatibility with a proven communication network; N2 Bus is widely accepted by Heating, Ventilating, and Air Conditioning (HVAC) control suppliers
- integral humidity sensing capability (dehumidification models) — increases occupancy comfort by providing dehumidification
- backlit Liquid Crystal Display (LCD) — offers real-time control status of the environment in easy-to-read, English plain text messages with constant backlight that brightens during user interaction
- on/off, floating, or proportional 0 to 10 VDC control — offers additional application flexibility by providing more advanced control signals
- three speeds of fan control — provides easy **FAN** speed selection via interface key, to meet the application requirements
- override interface key (commercial models) — allows easy access for temporarily overriding the unoccupied mode
- temperature scale selector (hospitality models) — offers guests the ability to select a Fahrenheit (°F) or Celsius (°C) temperature scale display
- simplified setpoint adjustment — enables the user to change the setpoint by simply pressing the **UP/DOWN** arrow keys
- two configurable binary inputs — provide additional inputs for advanced functions such as remote night setback, service or filter alarms, motion detector, and window status



**TEC21x6-2 Series N2 Networked Thermostat with Two Outputs, Dehumidification Capability, and Three Speeds of Fan Control**

- over 20 configurable parameters — enable the thermostat to adapt to any application, allowing installer parameter access without opening the thermostat cover
- discharge air sensor — monitors unit efficiency

### Repair Information

If the TEC21x6(H)-2 Series Thermostat fails to operate within its specifications, replace the unit. For a replacement thermostat, contact the nearest Johnson Controls® representative.

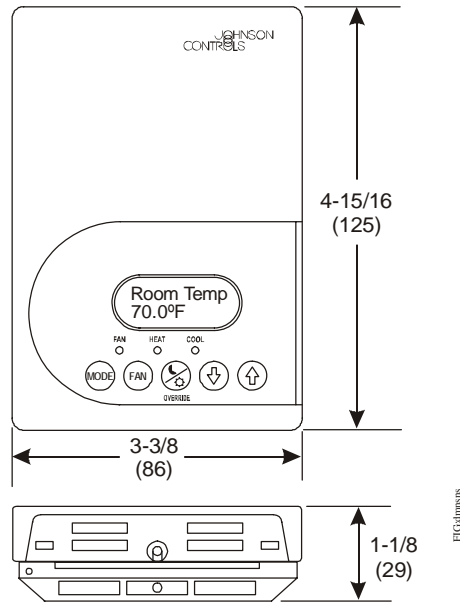
### Selection Chart

Code Number	Control Outputs	Fan Control	Integral Humidity Sensor	Application
TEC2116-2	Two On/Off	Three Speeds	No	Commercial Market
TEC2116H-2	Two On/Off	Three Speeds	No	Hospitality Market
TEC2126-2	Two On/Off or Floating	Three Speeds	No	Commercial Market
TEC2126H-2	Two On/Off or Floating	Three Speeds	No	Hospitality Market
TEC2136-2	Two On/Off or Floating	Three Speeds	Yes	Commercial Market
TEC2136H-2	Two On/Off or Floating	Three Speeds	Yes	Hospitality Market
TEC2146-2	Two Proportional 0 to 10 VDC	Three Speeds	No	Commercial Market
TEC2146H-2	Two Proportional 0 to 10 VDC	Three Speeds	No	Hospitality Market
TEC2156-2	Two Proportional 0 to 10 VDC	Three Speeds	Yes	Commercial Market
TEC2156H-2	Two Proportional 0 to 10 VDC	Three Speeds	Yes	Hospitality Market

### Accessories

Code Number	Description
SEN-600-1	Remote Indoor Air Temperature Sensor
TE-6361P-1	Duct Mount Air Temperature Sensor
SEN-600-4	Remote Indoor Air Temperature Sensor with Occupancy Override and Light-Emitting Diode (LED)
TE-636S-1	Strap-On Temperature Sensor

## TEC21x6(H)-2 Series N2 Networked Thermostats with Two Outputs, Dehumidification Capability, and Three Speeds of Fan Control (Continued)



Thermostat Dimensions, in. (mm)

### Technical Specifications

TEC21x6(H)-2 Series N2 Networked Thermostats with Two Outputs, Dehumidification Capability, and Three Speeds of Fan Control		
<b>Power Requirements</b>		19 to 30 VAC, 50/60 Hz, 2 VA (Terminals 4 and 5) at 24 VAC Normal, Class 2 or Safety Extra-Low Voltage (SELV)
<b>Relay/Triac Contact Rating</b>	<b>On/Off and Floating Control</b>	30 VAC, 1.0 A Maximum, 3.0 A In-Rush, Class 2 or SELV
<b>Analog Output Rating</b>	<b>Proportional Control</b>	0 to 10 VDC into 2k ohm Resistance (Minimum)
<b>Fan Relay Output Rating</b>		30 VAC, 1.0 A Maximum, 3.0 A In-Rush
<b>Auxiliary Output Rating</b>	<b>Triac Output</b>	30 VAC, 1.0 A Maximum, 3.0 A In-Rush
<b>Digital Inputs</b>		Voltage-Free Contacts Across Terminal Scom to Terminals BI1, BI2, or UI3
<b>Wire Size</b>		18 AWG (1.0 mm Diameter) Maximum, 22 AWG (0.6 mm Diameter) Recommended
<b>Thermostat Measurement Range</b>		-40.0°F/-40.0°C to 122.0°F/50.0°C
<b>Temperature Sensor Type</b>		Local 10k ohm Negative Temperature Coefficient (NTC) Thermistor
<b>Resolution</b>	<b>Temperature</b>	±0.2°F/±0.1°C
	<b>Humidity</b>	±5% RH from 20 to 80% RH at 50 to 90°F (10 to 32°C)
<b>Control Accuracy</b>		±0.9°F/±0.5°C at 70.0°F/21.0°C Typical Calibrated
<b>Control Range</b>	<b>Heating</b>	40.0°F/4.5°C to 90.0°F/32.0°C in 0.5° Increments
	<b>Cooling</b>	54.0°F/12.0°C to 100.0°F/38.0°C in 0.5° Increments
<b>Minimum Deadband</b>		2°F/1°C between Heating and Cooling
<b>Ambient Conditions</b>	<b>Operating</b>	32 to 122°F (0 to 50°C); 95% RH Maximum, Noncondensing
	<b>Storage</b>	-22 to 122°F (-30 to 50°C); 95% RH Maximum, Noncondensing
<b>Compliance</b>	<b>United States</b>	UL Listed, File E27734, CCN XAPX, Under UL 873, Temperature Indicating and Regulating Equipment FCC Compliant to CFR 47, Part 15, Subpart B, Class A
	<b>Canada</b>	UL Listed, File E27734, CCN XAPX7, Under CAN/CSA C22.2 No. 24, Temperature Indicating and Regulating Equipment Industry Canada, ICES-003
	<b>Europe</b>	CE Mark, EMC Directive 89/336/EEC
	<b>Australia and New Zealand</b>	C-Tick Mark, Australia/NZ Emissions Compliant
<b>Shipping Weight</b>		0.75 lb (0.34 kg)