

TEC21x7-2 Series N2 Networked Thermostats with Two Outputs

Description

The TEC21x7-2 Series Thermostats are N2 networked devices that provide control of local hydronic reheat valves, pressure dependent Variable Air Volume (VAV) equipment with or without local reheat, or other zoning equipment using an on/off, floating, or proportional 0 to 10 VDC control input. The technologically advanced TEC21x7-2 Series Thermostats feature a Building Automation System (BAS) N2 Bus communication capability that enables remote monitoring and programmability for efficient space temperature control.

The TEC21x7-2 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 *TEC21x7-2 Series N2 Networked Thermostats with Two Outputs Product Bulletin (LIT-12011112)* 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
- 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
- override interface key — allows easy access for temporarily overriding the unoccupied mode
- 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
- 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



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Repair Information

If the TEC21x7-2 Series Thermostat fails to operate within its specifications, replace the unit. For a replacement thermostat, contact the nearest Johnson Controls® representative.

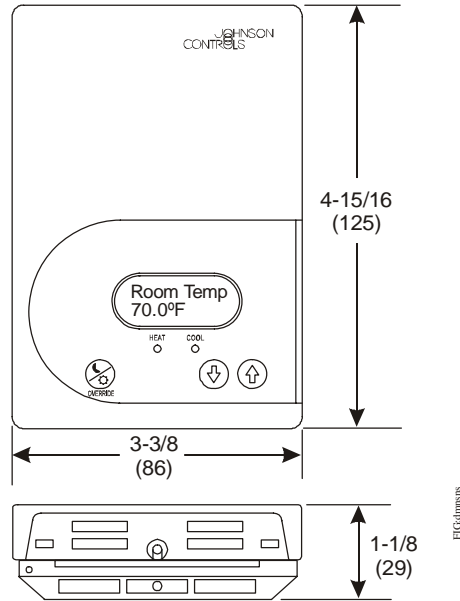
Selection Chart

Code Number	Control Outputs
TEC2127-2	Two On/Off or Floating
TEC2147-2	Two Proportional 0 to 10 VDC

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

TEC21x7-2 Series N2 Networked Thermostats with Two Outputs (Continued)



Thermostat Dimensions, in. (mm)

Technical Specifications

TEC21x7-2 Series N2 Networked Thermostats with Two Outputs		
Power Requirements		19 to 30 VAC, 50/60 Hz, 2 VA (Terminals 4 and 5) at 24 VAC Nominal, Class 2 or Safety Extra-Low Voltage (SELV)
Relay/Triac Contact Rating	On/Off and Floating Control	30 VAC, 1.0 A Maximum, 3.0 A In-Rush, Class 2 or SELV
Analog Output Rating	Proportional Control	0 to 10 VDC into 2k ohm Resistance (Minimum)
Auxiliary Output Rating	Triac Output	30 VAC, 1.0 A Maximum, 3.0 A In-Rush
Digital Inputs		Voltage-Free Contacts Across Terminal Scom to Terminals BI1, BI2, or UI3
Wire Size		18 AWG (1.0 mm Diameter) Maximum, 22 AWG (0.6 mm Diameter) Recommended
Thermostat Measurement Range		-40.0°F/-40.0°C to 122.0°F/50.0°C
Temperature Sensor Type		Local 10k ohm Negative Temperature Coefficient (NTC) Thermistor
Resolution		±0.2°F/±0.1°C
Control Accuracy		±0.9°F/±0.5°C at 70.0°F/21.0°C Typical Calibrated
Control Range	Heating	40.0°F/4.5°C to 90.0°F/32.0°C in 0.5° Increments
	Cooling	54.0°F/12.0°C to 100.0°F/38.0°C in 0.5° Increments
Minimum Deadband		2°F/1°C between Heating and Cooling
Ambient Conditions	Operating	32 to 122°F (0 to 50°C); 95% RH Maximum, Noncondensing
	Storage	-22 to 122°F (-30 to 50°C); 95% RH Maximum, Noncondensing
Compliance	United States	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
	Canada	UL Listed, File E27734, CCN XAPX7, Under CAN/CSA C22.2 No. 24, Temperature Indicating and Regulating Equipment
	Europe	Industry Canada, ICES-003
	Europe	CE Mark, EMC Directive 89/336/EEC
	Australia and New Zealand	C-Tick Mark, Australia/NZ Emissions Compliant
Shipping Weight		0.75 lb (0.34 kg)

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