Code No. LIT-1900813
Issued March 4, 2013

TEC2620H-0, TEC2620C-0, TEC2620H-0+PIR, TEC2620C-0+PIR, TEC2621H-0, TEC2621C-0, TEC2621H-0+PIR, TEC2621C-0+PIR, R-HCC40-0, R-HCC44-0, R-MPR20-0, R-MPR24-0, R-SFC40-0

TEC2620 Series Non-Programmable Fan Coil Network Thermostat Controller and Remote I/O Relay Packs

Description

The TEC2620 Series Network Thermostat Controller and Fan Coil Relay Packs provide control of two-pipe and four-pipe fan coil units. This thermostat and relay pack fan coil control system simplifies the retrofit of existing line voltage fan coil thermostats by integrating all of the relay outputs required for fan switching and valve control into one modular package. In retrofit applications, the installation can be further simplified by reusing the existing wires between the old line voltage switching thermostats and the fan coil unit to install the TEC2620 Series Network Thermostat Controller.

The Fan Coil Relay Packs locally contain all the relay outputs necessary for fan switching and valve control within the fan coil unit. Relay pack models are also available for extra monitoring and controlling inputs for fan coil units. The Fan Coil Relay packs operate as slave units under the control of a single master TEC2620 Series Network Thermostat Controller. One TEC2620 Series Network Thermostat Controller operates as the master of up to 10 Fan Coil Relay packs. Only one relay pack with remote monitoring inputs can be used under a single TEC2620 Thermostat Controller. All other slave units must be relay packs **without** remote inputs.

All TEC2620 Series Thermostat Controller use an intuitive, plain text, menu-driven backlit display that makes setup and operation quick and easy.

Refer to the *TEC2620 Series Network Thermostat Controller and Fan Coil Relay Packs Product Bulletin (LIT-12011xxx)* for important product application information.

Features

- BACnet MS/TP communication — provides compatibility with a proven communication network; BACnet MS/TP is widely accepted by HVAC control suppliers
- password protection option — protects against undesired thermostat controller tampering
- backit 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
- Three speeds of fan control — provide easy FAN speed selection, via the interface key, to meet the application requirements
- single and dual setpoint adjustments — enable user setpoint options to accommodate the specific application
- direct line switching control of valves and fans — reduces the number of external components and costs associated with system installation
- line powered from 90 to 277 VAC— meets power supply requirements of most fan coil systems
- three 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 controller to adapt to any application, allowing installer parameter access without opening the cover
- color-coded relay pack wires — simplify installation for most fan coil units

TEC2620H-0 Thermostat Controller and Fan Coil Retrofit Relay Pack

Repair Information

If either the TEC2620 Series Network Thermostat Controller or Fan Coil Relay Pack fails to operate within its specifications, replace the unit. For a replacement thermostat controller, contact the nearest Johnson Controls® representative.

Selection Charts

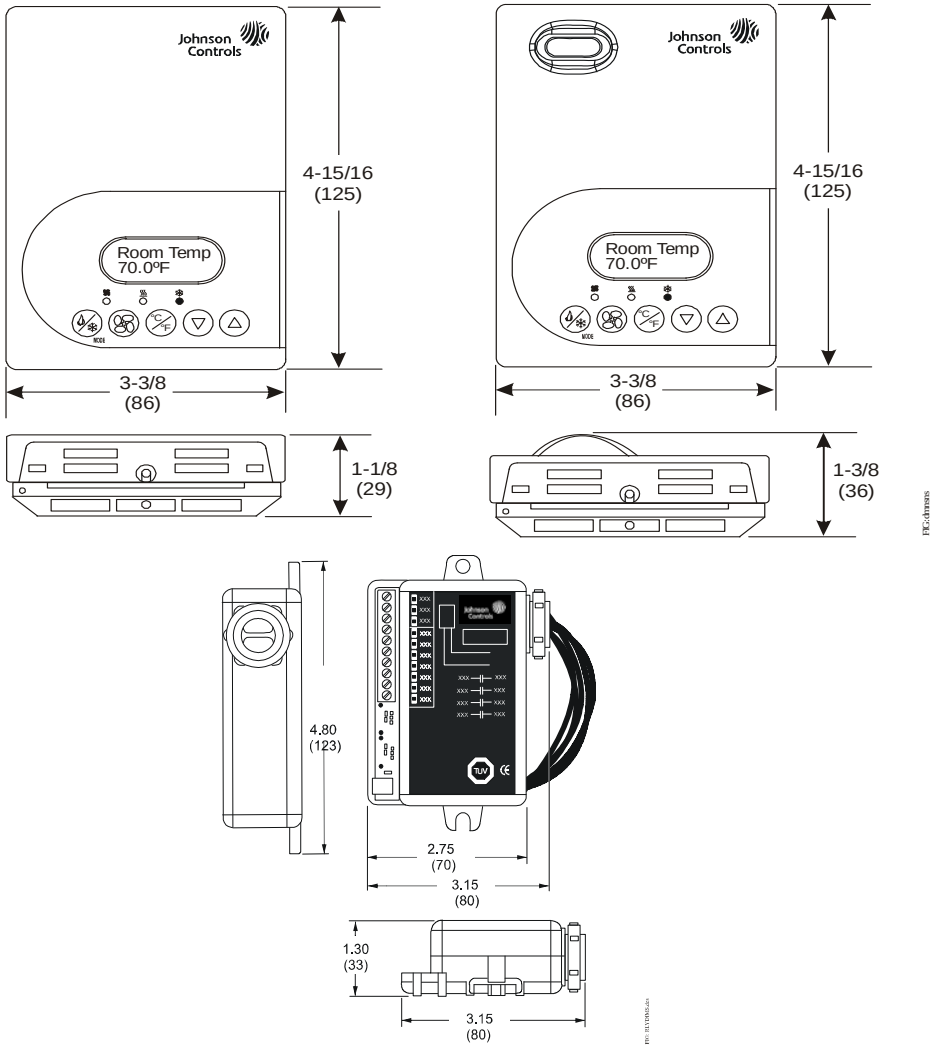
Thermostat Controller Models

Product Code Number	Onboard Occupancy Sensor	Dehumidification	Application
TEC2620H-0	No	No	Hospitality
TEC2621H-0	No	Yes	Hospitality
TEC2620H-0+PIR	Yes	No	Hospitality
TEC2621H-0+PIR	Yes	Yes	Hospitality
TEC2620C-0	No	No	Commercial
TEC2621C-0	No	Yes	Commercial
TEC2620C-0+PIR	Yes	No	Commercial
TEC2621C-0+PIR	Yes	Yes	Commercial

TEC2620 Series Non-Programmable Fan Coil Network Thermostat Controller and Remote I/O Relay Packs (Continued)

Relay Pack Models

Relay Pack Model Functionality	R-HCC40-0	R-HCC44-0	R-MPR20-0	R-MPR24-0	R-SFC40-0
Application	2-Pipe FCU 2-Pipe FCU with Reheat 4-Pipe FCU	2-Pipe FCU 2-Pipe FCU with Reheat 4-Pipe FCU	2-Pipe FCU 2-Pipe FCU with Modulating Pulsed Reheat	2-Pipe FCU 2-Pipe FCU with Modulating Pulsed Reheat	Slave Fan Control Only
Fan Control	Up to 3-Speed	Up to 3-Speed	Up to 3-Speed	Up to 3-Speed	Up to 3-Speed
Monitoring Inputs	None	4 FCU Remote Inputs	None	4 FCU Remote Inputs	None
Control Types	On/Off Line Switched Valve Control 1 Heat/Cool 1 Cool 3 Fan Outputs	On/Off Line Switched Valve Control 1 Heat/Cool 1 Cool 3 Fan Outputs	On/Off Line Switched Valve Control 1 Heat/Cool 1 Modulating Pulsed VDC Output for SSR Electric Heat 3 Fan Outputs	On/Off Line Switched Valve Control 1 Heat/Cool 1 Modulating Pulsed VDC Output for SSR Electric Heat 3 Fan Outputs	Slave Fan Control 3 Fan Outputs



TEC2620 Series Network Thermostat Controller and Fan Coil Relay Pack Dimensions, in. (mm)

 www.johnsoncontrols.com

TEC2620 Series Non-Programmable Fan Coil Network Thermostat Controller and Remote I/O Relay Packs (Continued)

Accessories

Accessories (Order Separately)

Code Number	Description
SEN-600-1	Remote Inside Air Temperature Sensor
TE-6361M-1	Duct Mount Air Temperature Sensor
TE-636S-1	Strap-Mount Temperature Sensor
TE-6360F-0	10k Ohm Thermistor Johnson Controls Type II Flush Mount Temperature Sensor with Logo
TE-6360F-1	10k Ohm Thermistor Johnson Controls Type II Flush Mount Temperature Sensor without Logo
MS-BACEOL-0	RS485 End-of-Line Terminator
TEC-6-PIR	Cover with Occupancy Sensor for Commercial Models
TEC-6H-PIR	Cover with Occupancy Sensor for Hospitality Models

Technical Specifications

TEC2620 Series Network Thermostat Controllers

Power Requirements		7 VDC, 2.4 watts (minimum) Terminals 4 (+) and 5 (Com) supplied by first relay pack
Wire Size		18 AWG (1.0 mm Diameter) Maximum, 22 AWG (0.6 mm Diameter) Recommended
Binary Inputs		Voltage-Free Contacts across Terminal Scom to Terminals BI1 or BI2
Temperature Senor Resolution		±0.2F° (±0.1C°)
Temperature Sensor Type		Local 10k ohm NTC Thermistor Sensor
Temperature Range	**Backlit Display**	-40.0°F/-40.0°C to 122.0°F/50.0°C in 0.5° Increments
	Heating Control	40.0°F/4.5°C to 90.0°F/32.0°C
	Cooling Control	54.0°F/12.0°C to 100.0°F/38.0°C
Dehumidification Setpoint Range		30% to 95% RH
Accuracy	**Temperature**	±0.9F°/±0.5C° at 70.0°F/21.0°C Typical Calibrated
	Humidity	±5% RH from 30 to 70% RH at 70.0°F/21.0°C
Minimum Deadband		2F°/1C° 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**	cTUVus Listed, Tested to UL 873, Temperature Indicating and Regulating Equipment
		FCC Compliant to CFR 47, Part 15, Subpart B, Class A
	Canada	cTUVus Listed, Tested to UL 873, Temperature Indicating and Regulating Equipment
		Industry Canada, ICES-003
CE	**Europe**	CE Mark - Johnson Controls, Inc., declares that this product is in compliance with the essential requirements and other relevant provisions of the EMC Directive 2004/108/EC.
	Australia and New Zealand	C-Tick Mark, Australia/NZ Emissions Compliant
	BACnet International	BACnet Testing Laboratories™ (BTL) 135-2001 Listed BACnet Application Specific Controller (B-ASC)
Shipping Weight		**TEC262xx-0:** 0.75 lb (0.34 kg) **TEC262xx-0+PIR:** 0.77 lb (0.35 kg)

TEC2620 Series Non-Programmable Fan Coil Network Thermostat Controller and Remote I/O Relay Packs (Continued)

Relay Packs

Line Voltage Electrical Connections		
Power Requirements		Black: Hot Wires, White: Neutral Wires 90 to 277 VAC Universal, 50-60 Hz
Fan Relay Output Rating		Brown: High Wires, Blue: Medium Wires, Red: Low Wires
Cooling Valve		Yellow Wire 5 A at 1/2 HP Maximum
Heating Valve		Isolated Orange Wires 10 A at 1/2 HP Maximum
Low Voltage Electrical Ratings		
Terminal 1: Tx/Rxz		Digital Serial Communications to Thermostat (5 VDC)
Terminal 2: 7 VDC		7 VDC Output, 4 W Maximum, Powers One Thermostat
Terminal 3: Com		Power and Serial Communications Common
Terminal 4: RUI 1		Remote Universal Input: NTC Thermistor, 10K Ohm Type 2 Voltage-Free Dry Contact
Terminal 5: SCom		Signal Common for Terminals
Terminal 6: RBI 2		Remote Binary Input; Voltage-Free Dry Contact
Terminal 7: SS		Supply Air Sensor; NTC Thermistor, 10K Ohm Type 2
Terminal 8: RS		Return Air Sensor; NTC Thermistor, 10K Ohm Type 2
Terminal 9: Heat (-)		Pulsed DC Output, SInking/Open-Drain: Connect to (-) Terminal of Opto-Isolator 10 Second Pulse Width with Variable Duty Cycle (0 to 100% at 1% Increments)
Terminal 10: Heat (+)		Voltage Source Connect to (+) Terminal of Opto-Isolator Tolerance = 6.8 to 7.4 VDC Maximum Allowable Load Current = 45mA (150 Ohm at 6.8 VDC)
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**	cTUVus Listed, Tested to UL 873, Temperature Indicating and Regulating Equipment
		FCC Compliant to CFR 47, Part 15, Subpart B, Class A
	Canada	cTUVus Listed, Tested to UL 873, Temperature Indicating and Regulating Equipment
		Industry Canada, ICES-003
CE	**Europe**	CE Mark - Johnson Controls, Inc., declares that this product is in compliance with the essential requirements and other relevant provisions of the EMC Directive 2004/108/EC.
	Australia and New Zealand	C-Tick Mark, Australia/NZ Emissions Compliant
Shipping Weight		0.75 lb (0.34 kg)

