



ebuilding

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internet-powered
facility automation

TRC Terminal Room Controllers



Product Description

TRC is a family of wall-mounted controllers designed to provide cost effective control of terminal and unitary HVAC equipment. The TRC product family includes devices tailored specifically for control of a broad set of equipment such as fan coil units, heat pumps, variable air volume terminal units, and packaged HVAC and AHU units.

Each TRC is a complete stand-alone controller with its own microprocessor and non-volatile memory. This allows it to execute independent local control of equipment even when connection to a high-level controller is not available. A BACnet MS/TP RS-485 communications network allows TRCs to be networked together and connected to the Teletrol eBuilding™ network con-

troller. This networking capability allows the TRC to be a fully integrated part of a comprehensive energy management and building automation system.

TRCs are designed for ease of installation, wiring and service. They incorporate removable terminal blocks and explicit terminal identification. They also incorporate automatic baud rate detection and status LED's for the BACnet MS/TP network to ease the installation process.

TRCs use the latest microcontroller technology and surface mount electronic devices to achieve powerful functionality in a small, attractive package.

Features

- Precise stand-alone control for VAV, heat pump, packaged HVAC unit and other unitary control equipment applications.
- A wide variety of models with pre-programmed sequences and options to fit almost any unitary application.
- Fully integrated with Teletrol's eBuilding system.
- Uses EEPROM memory technology to maintain information in the event of power loss.
- Large, backlit display for local information and configuration.
- Attractive design fits well in any environment.

Integration with Teletrol's eBuilding System

TRCs have been designed to fully integrate into Teletrol's eBuilding facility automation system – a system that is:

- IT-friendly
- BACnet-compatible
- Internet-powered

TRCs can be connected to an eBuilding controller over BACnet MS/TP and TRC data is transparently integrated with all other system data. Transparent integra-

tion allows eBuilding controllers to monitor, interrogate and coordinate multiple TRCs to implement a wide range of system optimization strategies. TRC data can be accessed in the eBuilding controller in the same way as local point data. This means that TRC data can be easily referenced in control programs, displayed on operator screens, stored in history logs and used in trends and alarms.

Product Versions

The TRC product line includes multiple versions built on a common hardware platform. Each version is tailored to a specific application and designed to effectively control its associated HVAC equipment.

Model 76XX

The TRC 76XX series is specifically designed to control packaged and split staged heating/cooling equipment and heat pumps. The TRC 76XX series is pre-programmed to suit the most used applications, and contains all required I/O hardware for the target applications. Single stage, 2 stage and heat pump versions are available for a wide range of applications.

Model 73XX

The TRC 73XX series is specifically designed to control multi-speed fan coil units with 2 position, analog or floating temperature control valves. The TRC 73XX includes a selection of

pre-programmed sequences that accommodate most applications directly. Available sequence options and on-board inputs and outputs eliminate the need for auxiliary relays and peripheral devices in most applications. Versions with integrated relative humidity sensors are also available.

Model 72XX

The TRC 72XX series is specifically designed to control 0-10V, staged and floating point heating and cooling terminal systems. The TRC 72XX series is pre-programmed to suit the most used applications and require little configuration to accomplish remarkable temperature control regardless of the application. Common applications include cooling only VVT zone with re-heat, Fin-Tube radiators, cabinet heaters, radiant panel heaters and electric re-heat zones. Optional changeover sensor eliminates multi-vendor peripheral sourcing and further simplifies installation.

Communications

The TRC provides an RS-485 communication bus connection which allows multiple TRC controllers to be networked together and connected to Teletrol eBuilding controllers. The network uses BACnet protocol and operates at 9.6k, 19.2k or 38.4k baud. Autobaud detection is used by the TRC to ease system configuration. The network address of each device is

configured through a local intuitive user interface.

Specifications

Power: 24 Vac, +/-20%, 50/60 Hz.

Power Consumption: 2 VA

Operating Environment: 32 to 122° F (0 to 50° C), 10 - 95% RH non-condensing

Storage Conditions: -22 to 122° F (-30 to 50° C), 10 - 95% RH non-condensing

Control Accuracy: +/-0.9° F (+/-0.5° C) at 70° F (21° C) typical calibrated

Communications: BACnet MS/TP - RS485 with autobaud rates of 9.6k, 19.2k and 38.4k.

Wire Terminations: Removable screw terminals - 18 gauge maximum, 22 gauge recommended.

Dimensions: 4.94" x 3.38" x 1.13" (125mm x 86mm x 29mm)

Weight: 0.75 lbs. (0.34 kg)

Agency Compliance:

FCC: Class A computing device, Subpart J of Part 15
UL: UL873 File E234137 with CCN's XAPX (US) and XAPX7 (Canada)

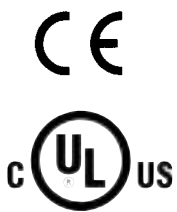




Ordering Information

Part #	Teletrol Model	Description
		RTU
00-398	TRC-7600A	One stage heat/cool
00-399	TRC-7652A	One stage heat/cool with local schedule
00-400	TRC-7600B	Two stage heat/cool
00-401	TRC-7652B	Two stage heat/cool with local schedule
00-402	TRC-7605B	Two stage heat/cool with economizer
00-403	TRC-7656B	Two stage heat/cool with economizer and local schedule
		Heat Pump
00-404	TRC-7600H	Three stage heat, two stage cool
00-405	TRC-7652H	Three stage heat, two stage cool with local schedule
		Fan Coil
00-406	TRC-7300A	On/off control with override
00-407	TRC-7300C	On/off and floating control with override
00-408	TRC-7350C	On/off and floating control with relative humidity and override
00-409	TRC-7300F	Analog 0-10 Vdc control with override
00-410	TRC-7350F	Analog 0-10 Vdc control with relative humidity and override
00-411	TRC-7305A	On/off control (no override)
00-412	TRC-7305C	On/off and floating control (no override)
00-413	TRC-7355C	On/off and floating control with relative humidity (no override)
00-414	TRC-7305F	Analog 0-10 Vdc control (no override)
00-415	TRC-7355F	Analog 0-10 Vdc control with relative humidity (no override)
		VAV/VVT
00-416	TRC-7240C	Two floating control outputs and one aux TRIAC output
00-417	TRC-7240F	Two analog 0-10 Vdc control outputs and one aux TRIAC output

* For additional ordering information and technical specifications about Teletrol's products, please refer to Teletrol's price list and/or the respective installation manuals.



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