TRACENET™ TCM18

CONTROL AND MONITORING SYSTEM

THERMON **The Heat Tracing Specialists®**

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INTRODUCTION

Control and monitoring systems play an essential role in heat tracing applications which range from freeze protecting water lines to maintaining critical process temperatures. Advancements in Thermon's TCM18 microprocessor have made electronic control and monitoring units both cost effective and reliable. Electronic control and monitoring systems ensure accurate temperature measurements, conserve energy and extend system life. A versatile electric heat tracing control and monitoring network is key to reducing operating cost in plants.

TCM18 CONTROL AND MONITORING MODULE

The TCM18 functions as the user interface for a TraceNet TCM18 control panel network of heat tracing control modules. The TCM18 allows the operator to access operating control parameters and operating conditions throughout the heat tracing system network.

THERMON SOLUTIONS

The new TraceNet TCM18 is an extension of Thermon's proven control and monitoring systems (TraceNet, TC1818, TC202, TC201, TC101, and ECM). Each of these systems offer design simplicity and versatility. The components have been designed for easy installation, maintenance, and system expansion over the life of each system.

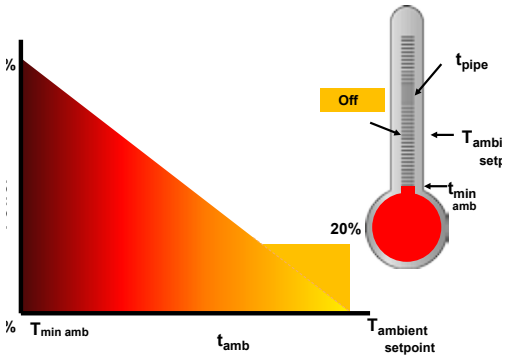
The controller can be located in the field, reducing field wiring while providing efficient energy management and lower operating costs. Communications to each of these controllers can interface through serial, Ethernet, fiber optic, or wireless connection back to the plant centralized control center and/or TraceView Network Explorer (TVNE) which is specifically developed for use with electrical trace heating systems.

TVNE is a Supervisory Control and Data Acquisition (SCADA) package developed specifically for interfacing with Thermon controllers. TraceView Network Explorer can be operated on a PC for Ethernet connections and can communicate with up to 4096 controllers over 32 channels, providing up to 15,000 heat trace circuits to be monitored within the same network.

LOWER OPERATING COSTS

TCM18 controllers sense ambient temperature and pulse power to the heat trace circuits proportionally. 100% power is applied at the minimum ambient temperature, and each heater is fully "off" at the desired maintain temperature.

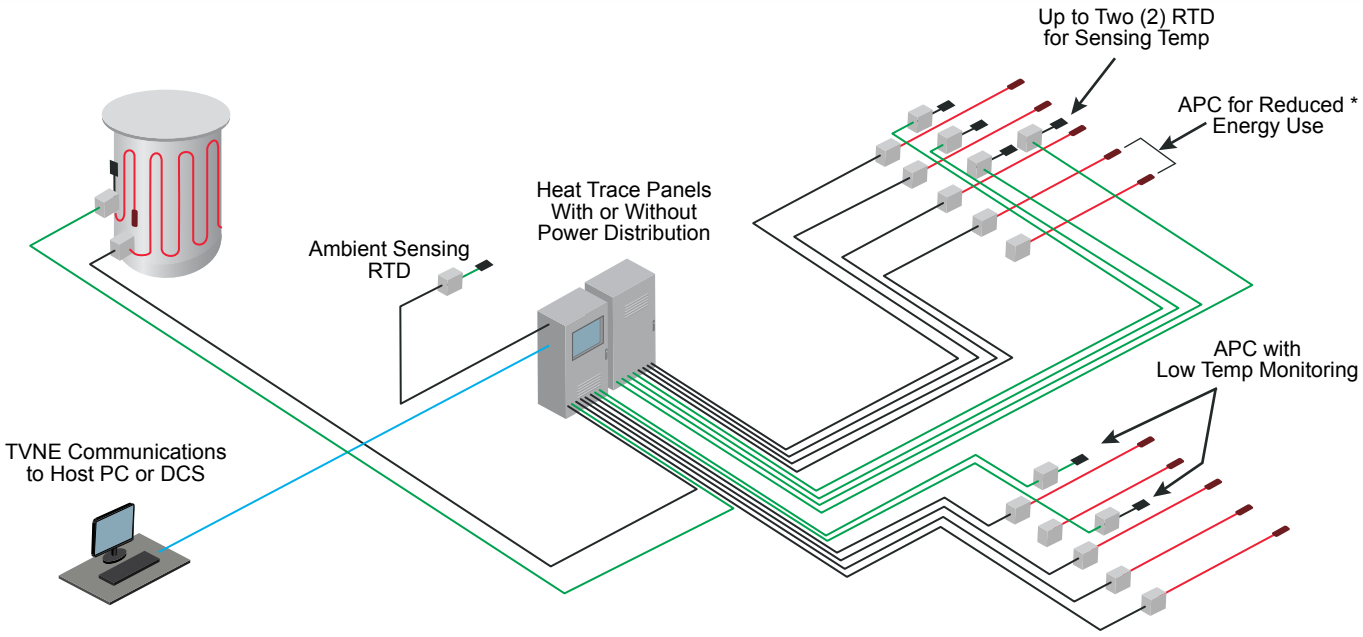
Ambient Proportional Control (APC) saves energy compared to conventional ambient proportional control.



TCM18 FEATURES AND BENEFITS

One (1) or Two (2) RTD Temperature Sensors per Circuit Control Output	Field mount up to thirty-six (36) RTD sensors for eighteen (18) heating circuits, or use Ambient Control and APC (Ambient Proportional Control) with a common RTD for the entire module.
Ground / Earth Leakage Equipment Protection	Routinely "self-tests" circuits for earth leakage … Fast Response Times for Alarms and Trips to meet Code Requirements without Expensive EPD - type breakers!
Distributed Heat Trace Control	Locate an entire TCM18 system (including electrical circuit breakers) inside hazardous areas…Reduced power wiring and lower overall installed costs!
APC Control Method for Energy Savings	APC (Ambient Proportional Control) uses a common RTD for all APC Circuits while maintaining line-sensing temperature monitoring.
Large 4-line LCD Display with clear and concise messages	Alarm and Control Information Presented Without Complex or Confusing Codes to Determine the Status of Each Heater.
High Density Heat Trace Panels for Control & Monitoring	A single TCM18 panel can be pre-wired, complete with power distribution for up to seventy-two (72) heat trace circuits with up to one hundred forty-four (144) RTD inputs.
Easy to Use Keypad	Programming Set-points for Control and Alarm is Very Clear and Matches the Descriptive Information on the LCD Display.
Designed for Environmental Extremes	Operate in ambient temperatures down to -40°C (-40°F) and as high as + 60°C (+140°F) …from the Arctic to the Middle East!
Isolated Dual Communication Ports for Remote Communications	Allow Separate Alarm and Trip Set-Points for Each Circuit

TYPICAL CONTROL AND MONITORING SYSTEM



*APC energy savings as compared to conventional ambient sensing.

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