



PRODUCT SPECIFICATIONS

TraceNet™ TCM2 CONTROL AND MONITORING MODULE


APPLICATION


The TCM2 is a microprocessor-based temperature control and monitoring module developed specifically for heat tracing applications. The unit provides control and monitoring capabilities via digital information display for one or two heat tracing circuits with input from up to two RTDs per circuit.

RATINGS


Control and monitoring capacity.....2 heat tracing circuits
 Module supply voltages..... 100 to 240 Vac
 Controlled output load voltage 100 to 600 Vac¹
 Storage ambient.....-40°F to 176°F
 (-40°C to 80°C)
 Power clamp function..... programmable from 20%-100%
 Temperature input up to two, 3-wire platinum
 100 Ohm RTDs per circuit
 Temperature control range.....-40°F to 1112°F
 (-40°C to 600°C)
 Control bandprogrammable in increments of 1 degree
 Module dimensions (HxWxD)..... 4.65" x 4.7" x 3.25"
 (118 x 119 x 83 mm)
 High operating current alarm1 to 300 Amps²
 Low operating current alarm0 to 299 Amps²
 Ground/earth leakage alarm/trip 20 to 250 mA
 (in 1 mA increments)
 Alarm outputsrated to 100 mA
 Self-test frequency programmable from 2 to 99 hours
 Communication Modbus ASCII/RTU via RS485³
 Auxiliary power output9 W @ 24 Vdc

CERTIFICATIONS/APPROVALS

 ANSI/UL 61010-1
 CAN/CSA-C22.2 No. 61010-1

 EN61010-1

Hazardous Locations (Classified)⁴:

 CL I, Div 2, Gp BCD T4
 ANSI/ISA 12.12.01
 CSA C22.2 No. 213
 -40°C ≤ Ta ≤ 60°C

Notes

1. For load voltages above 600 Vac, contact factory.
2. For higher amperage ratings, contact factory.
3. Ethernet or wireless communication via optional accessory modules.
4. When used within Thermon TraceNet TCM2 control panels.



PRODUCT FEATURES

A TCM2 control and monitoring unit offers the following features:

Reduces Man-hours: With the simplified, 4-button user interface, operators can quickly program the TCM2. The new TCM2 wiring harness allows maintenance personnel to swiftly install, remove, and conduct troubleshooting of the system.

Improved Control Methods: The TCM2 utilizes multiple control methods, similar to the Thermon TCM18 (On/Off, Soft-Start, Proportional) and features the upgraded Ambient Proportional Control (APC and APCM) that employs the energy saving method of Ambient Proportional Control with the higher current capacity of the mechanical relay.

Upgraded Communications: The TCM2 can network with any Thermon Controller to TraceNet™ Command or any plant DCS system via RS-485 in either MODBUS ASCII or RTU. In the panel, the TCM2 can employ a converter to offer MODBUS TCP/IP Ethernet.