

TC 816

Control and Monitoring Module

Product Specifications

Application

The TC816 is a multi-circuit microprocessor based temperature control and monitoring module developed specifically for cost-effective heat tracing. The unit provides heat tracing control and monitoring capabilities via a digital information display or remote computer (optional) for as many as 480 heat tracing circuits.

All control parameters can either be entered into the TC 816 by means of the central heat tracing control display or optional Control and Monitoring software.

In operation mode, the central heat tracing control display provides pipe temperature setpoint and measured values, heater-current (options) setpoint and measured values and alarm status. All parameters are displayed per heat tracing circuit.

As required, a second TC 816 can be utilized as a temperature limiter, providing the heating cable temperature setpoint, measured value and alarm status with the relevant heat tracing pipe temperature. Enabling hazardous area requirement compatibility with the least of efforts.

Ratings/Specifications TC 816 Controller . . .

Control and monitoring 8 or 16 heat tracing circuits
 Supply voltage 85-265 Vac, 50/60 Hz
 Controlled heater currents depending on applied relays
 Controlled output voltages depending on applied relays
 Power consumption controller 10 to 20 W
 Operating ambient +5°C to 40°C
 (95% relative humidity, no condensation)
 Maximum storage ambient -25°C to 75°C
 Data retention nonvolatile EEPROM
 Temperature input 8 or 16 x 3-wire platinum 100 RTDs
 Temperature control range programmable 1°C to 700°C
 Dimensions (W x H x D) 271 x 142 x 202 mm
 Alarm relays
 SPDT mechanical relay 250 Vac, 2 A LO-Alarm
 SPST-NC mechanical relay 250 Vac, 2 A ... HI-, DEV-Alarm
 SPST-NO mechanical relay 250 Vac, 2 A SYS-Alarm
 Communication RS 485 or Profibus port²

Notes . . .

1. Refer to the module and accessories selection guide for additional information regarding configuration of heat tracing control system.
2. TC 816 specific communication protocol available on request.

Certifications/Approvals . . .

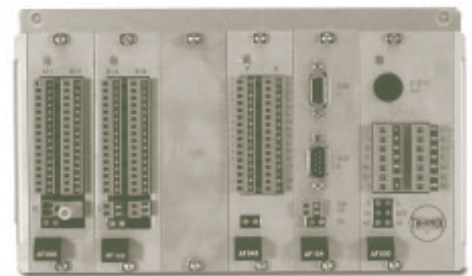
CE Low Voltage Directive 73/23/EEC
 EMC Directive 89/336/EEC



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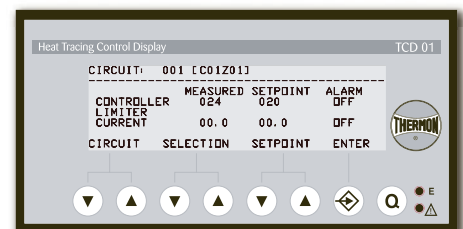
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Description . . .

The TC 816 controller is comprised of a series of off the shelf modules that will meet a broad range of applications.



Central Heat Tracing Control Display

Product Features . . .

Alarm information for:

- Low temperature
- High temperature
- Temperature Deviation
- Current Deviation
- Damaged RTD sensor(s)

Control for up to 16 heat tracing circuits :

- Process control
- Proportional Ambient or Dead Leg Control

Inputs facilities:

- 3 or 4 wire RTD PT-100
- MCB/RCD status monitoring (optional)
- Heater current

Heater actuator:

- Mechanical contactors
- Solid state relays (optional)

Communication facilities:

- RS485 bus for display and/or remote computer with monitoring software
- Profibus for DCS communication (optional)

