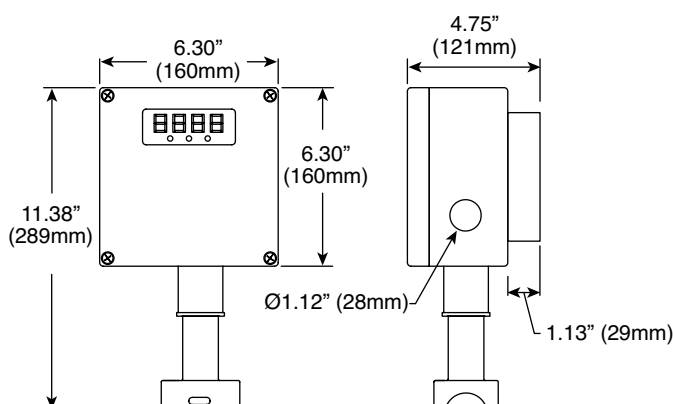


## DTS Series

### Heat Trace

### Digital Thermostat

- 30 Amp Solid State Relay (SSR) Output
- 120 to 277 Vac Operation
- C1D2 Hazardous Area Approval
- ATEX / IECEx Zone II
- On/Off Control With 100 Degree Deadband Programmable In One Degree Increments
- Selectable Soft-Start Feature – Eliminates SR Cable In-Rush
- LED Indication for Power, Alarm and Load
- Large LED Display of Process Variables
- Programmable High & Low Temperature Alarms
- Solid State Alarm for Remote Indication of Alarm Status –
  - AC Alarm: DTS-HAZ
  - DC Alarm: DTS-HAZ-DC
- NEMA 4X Enclosure
- Integral Pipe Stand
- Optional Wall Mount
- 100 Ohm Platinum RTD - Included
- Enclosure Serves as Heating Cable, A/C Power & Sensor Connection
- Works with SR, CWM and MI Cable
- RoHS Compliant
- UL, cUL Listed, CE Approved



### Description

The DTS-HAZ digital thermostat is a microprocessor based temperature control and power connection kit. It is used for freeze protection or process temperature maintenance of pipes or tanks protected by heat tracing products. This thermostat can be used with Constant Wattage, Mineral Insulated or Self-Regulating heating cables in Ordinary area or Class 1, Division 2 and IECEx/ATEX Zone II hazardous area locations.

This unit is designed to provide local temperature control and monitoring for heat traced pipes or tanks across a variety of industries and applications and will switch 30 amperes of current.

The DTS-HAZ provides easy programming of the temperature set point, high and low temperature alarms, the deadband, the temperature units, the soft start function and the alarm state through the front panel push buttons. LED lights are provided for indication of power to the unit, heater power on (load) and alarm status. A Fail Safe solid state alarm is included for wiring to your building

management system to indicate alarm status. This alarm may be set to open or close on all alarm conditions including loss of power, high or low temperature alarm and RTD failure. The loss of power indication qualifies this unit to be used to sense temperature and control heat trace when used in fire protection systems. Choose either the DC or the AC customer supplied voltage alarm variation. The minimum operating ambient temperature is -40°F (-40°C). This unit has programmable high and low temperature alarm set points from -80°F (-62°C) to 1150°F (621°C).

The DTS-HAZ employs a Soft Start feature that uses a proprietary software algorithm which eliminates the inherent self-regulating in-rush current, resulting in less nuisance tripping at cold temperatures. For added flexibility, the user may disable the soft start feature for non-heat trace applications. The alarm contact may be either normally open or normally closed.

A 100 Ohm platinum RTD is provided with a 3 foot (1 M) lead resulting in flexible mounting options for the user.

## DTS Series Heat Trace Digital Thermostat (cont'd.)

| PCN    | Model      |
|--------|------------|
| 387364 | DTS-HAZ    |
| 316187 | DTS-HAZ-DC |

### Accessories

| PCN    | Model                          |
|--------|--------------------------------|
| 318043 | DTS Wall Mount Kit             |
| 308144 | RTD Extension Wire (50 ft/15m) |

### Applications

- Freeze Protection of Piping
- Process Temperature Maintenance
- Tank Freeze Protection
- Tank Process Temperature Maintenance

### Environments

- Hazardous Areas, Class I, Div 2, Groups A,B,C,D – Temperature Rating: T4A
- IECEx, ATEX Zone II, Temperature Rating: T4

### Sensors

- 100 OHM PT RTD
- Probe Length = 4" (10.2 cm)
- Probe Diameter = 1/4" (6.35 mm)
- Leadwire Length = 3ft (1 M)\*
- \* The maximum allowable length of the RTD wire is 50ft (15m) in order to remain UL/cUL compliant.

### Markets

- Agriculture
- Alternative Fuels
- Chemical Processing
- Food Processing
- Oil / Gas
- Pharmaceutical
- Power Generation
- Water Treatment
- Building and Construction
- Transportation
- HVAC/Refrigeration

### Features

- User Selectable Soft-Start Program
- Small Enclosure. The 6.25 inch by 6.25 inch enclosure houses the temperature control and monitoring unit along with terminals for connecting instrument power, heating cable and RTD.
- 100 Ohm platinum RTD which can be pipe mounted or can be used to sense ambient air temperature.
- Pipe stand-off mount for direct pipe mounting.
- Integral wiring. The wiring of the heating cable, alarm, AC power line and the RTD sensor are all accomplished within the enclosure. This feature reduces both labor and material costs by eliminating the need for an additional heat trace power connection kit as well as the time for the additional wiring.

### Specifications

Operating Voltage 120 to 277 VAC, 50/60 Hz, Single Phase

Operating Temperature  
 - Hazardous Areas -40°F to 104°F (-40°C to 40°C)  
 - Ordinary Areas -40°F to 140°F (-40°C to 60°C)

Input 100 Ohm platinum RTD

Output 30 amp solid state relay

Alarms  
 High temp to 1150°F (621°C)  
 Low temp to -80°F (-62°C)  
 RTD Failure  
 Red LED alarm status indicator on front panel

Solid State Alarm Rating - AC 12-277 VAC, 1.8 Amps RMS - Customer Supplied  
 Solid State Alarm Rating - DC 0-42 VDC, 1.8 Amps RMS- Customer Supplied

| Alarm Function: | Mode             | Default | Optional |
|-----------------|------------------|---------|----------|
|                 | Normal Operation | Closed  | Open     |
|                 | Alarm Condition  | Open    | Closed   |
|                 | Power Off        | Open    | Open     |

Deadband 1°F (or °C) to 100°F (or °C), programmable

Set Points -80°F to 1100°F programmable (-62°C to 593°C)

Units of Temperature °F or °C, selectable

Control Mode On/Off control

Soft Start User selectable integral soft start, patent pending software algorithm, which eliminates nuisance breaker tripping associated with self-regulating cable in-rush

### Current Approvals

- CE, UL, cUL Listed
- Ordinary Areas
- Hazardous Area
- Class I, Div. 2 – Groups A, B, C, D
- ATEX/IECEx Zone II (Ex nA IIC)