



# **Thermaster TS**

### Thermaster PT100 with 4-20mA output

The Thermaster TS uses well tried technology from Braude to provide an output to a programmable controller or similar device for remote monitoring of a process tank. This enables temperature control from a central point and can link in with existing control systems.

The probe consists of a PT100 sensor encased in Teflon for chemical resistance with a PP / PVC / PVDF guide tube to suit the solution.

The probe can be easily located in the process tank and connection is very simple.

-20°C to 100°C range ±1°C accuracy



## **Used By**

- Steel Strip Manufacturers
- Wire & Tube Manufacturers
- Metal Finishers
- Chemical Plants
- Galvanising Industry
- Aerospace Industry
- Chemical Millers
- Glass Producers

### **Main Features**

- Non-corrodable PT100 Thermaster sensor
- IP67 Integral head with sender
- 4-20mA output connect to PLC controller
- Range –20°C to 100°C
- Accurate ±1°C
- Enables remote monitoring and control
- Designed for corrosive solutions

# Heater Fire resistance and safety

## **Flammability of Materials**

The materials used in construction of the POLARIS are classified as follows:

TEFLON FEP/PFA — These materials are to all intents and purposes non-flammable and will <u>only</u> burn in a pure oxygen atmosphere.

PVDF is classified by UL Laboratories as VO self-extinguishing.

### **Abnormal Operations Test and Hazard Protection**

Compliance with the Principal objectives of safety has been assured by compliance with the following European and British standard:~

EN60519-1:2003, EN60519-2:2006, EN60335-1:2002/A2:2006 and EN60335-2-73:2003/A1:2006

The heater tested was subjected to an abnormal operation test as required by the standard, which states: ~

"Appliances shall be constructed so that as a result of abnormal or careless operation, the risk of fire, mechanical damage impairing safety or protection against electric shock is obviated as far as is practicable.

During the tests the appliance shall not emit flames, molten metal or poisonous or ignitable gas in hazardous amounts."

Braude have also carried out their own series of tests to destruction on heaters suspended in air and are satisfied that no risk exists.

#### **Correct Installation**

Please note that BRAUDE installation instructions require all electric heaters to be properly installed with earth leakage circuit breakers (RCDs), which should be checked regularly for correct operation. Braude also recommend that all tanks should be fitted with level control to switch heaters off in the event of low liquid level and that proper maintenance and checking of these systems is carried out on a regular basis.

Proper installation according to the instructions will allow the heaters to be shut down rapidly in the event of adverse operating conditions, maintaining the safety of the installation.

#### **SAFETY Controllers for Polaris heaters**

Thermaster OTP—Over Temperature Protection integral to the heater

Thermaster OTF—Thermal Fuse integral to the heater

HPD Hazard Protection device—low level cut off integral to the Polaris heaters

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