

# 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 only 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.”

## 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.

## CORRECT INSTALLATION

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

## BRAUDE Products will not corrode

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## THERMASTER OTP

Over Temperature Control for plant protection



Controller: 125mm x 125mm x 75mm deep

- Used on most Braude Polaris electric heaters
- Process areas where overheating is a concern
- Ultimate prevention of overheating
- Protection of plant and equipment
- Can be retrofitted to existing heater installations

## HPD Hazard Protection Device

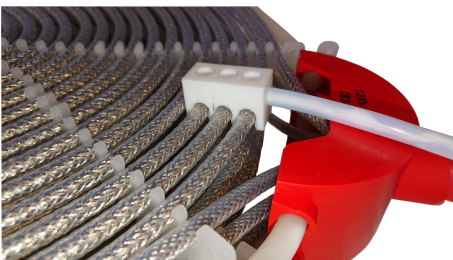


Controller: 125mm x 125mm x 75mm deep

- Integral to Polaris Popular or Modular heater
- Prevents heater failure in event of low liquid level
- IP65 Tamperproof controller
- Non corrodible filament sensor
- Can be retrofitted to heater
- Prevent catastrophic plant failure

## THERMASTER OTF

Over Temperature Fuse for plant protection



- Used on most Braude Polaris electric heaters
- Ultimate prevention of overheating
- Protection of plant and equipment
- Can be retrofitted to existing heater installations
- Single set point one off operation

**BRAUDE Products will not corrode**