Heatrod Elements
MEMBER OF BACKER GROUP

braude

# HPD Hazard Protection Device

## Low liquid level heater cut out

The HPD is a level controller which works with sensors fitted to the Polaris heater. The sensor are Braude filaments which will not corrode in even the most corrosive of solutions.

The controller operated by passing a small ac current through the sensors which will detect the presence of a liquid. If there is no liquid present the controller will deault to the off position and the heater will be turned off thus ensuring safety of the heater and the tank.

HPD is best ordered at the time of ordering the heater ensuring the sensors are correctly positioned. It is possible to retrofit sensors where there is no other choice.

**Polaris Heaters are Intrinsically Safe**



The unexpected and unnoticed lowering of solution level for a variety of reasons is responsible for the “write-off” of a large number of tank heaters of all types every year.

**Protect your heaters with HPD**

## Used By

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

## Main Features

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

# BRAUDE Products will not corrode

# 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."*
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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