

## PTC's – Heaters and Current Limiters

**PTC heaters** – self regulating heaters in simple and complex 2D & 3D shapes that provide a highly reliable product for demanding applications.

**PTC Current Limiters** – used to limit the current in a circuit in the event of a fault condition. Used in place of conventional fuses but typically do not require replacement in the event of a fault.

### Shaped 2D PTC Heaters

#### Features & Benefits:

- Shapes - trapezoids, parallelograms, circular or rectangular washers
- Wide range of switch points: -10°C to 200°C
- Self regulating properties – power when required in lower ambient temperature conditions.
- Over a decade of proven reliability on aircraft Angle of Attack sensors and similar applications.

#### Applications:

- Aerospace – Ice prevention
- Medical
- LCD display – maintain LCD temperature in cold conditions

### 3D PTC Heaters

#### Features & Benefits:

- Overcomes geometric limitations of conventional 2D pressed powder heaters
- Curved surfaces and aerodynamic shapes
- Operating temperatures no higher than 200°C
- Self regulating properties
- Uses a novel forming process for PTC ceramic that is similar to injection molding

#### Applications:

- Oil & Gas – pipeline flow, sensor & valve de-icing
- Space – fuel line heating in satellites
- Aerospace – sensor, bearing & nose cone de-icing
- Healthcare – sleep apnea, humidity control
- Renewables – de-icing on wind turbines

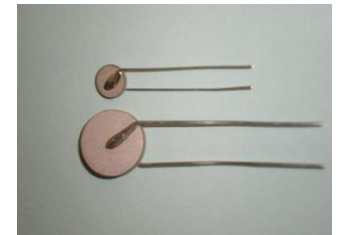
### PTC Current Limiters

#### Features & Benefits:

- Wide range of operating currents
- Operation up to 1000 Vrms (p/n YS4020)
- Coated, uncoated, tape & reel options
- Excellent stability to original resistance post reset
- RoHS & REACH compliant

#### Applications:

- Protection of power supplies and transformers
- Protection of multi-meter inputs
- Fans & small motors – locked rotor protection



PTC Current Limiters



Shaped 2D PTC Heaters



3D PTC Heaters