



# THERMAC

ABN 69 007 449 256

Manufactured to ISO 9002 Q.A.Standard.

DATA SHEET

## HEAT DETECTOR MODEL 1000

### APPROVALS

- AS1603.1-1995 TESTED - Type E HEAT DETECTOR
- ACTIVEFIRE LISTED (CSIRO Aust. Govt.)
- PATENT No. 699529

### FEATURES

- RESETTING TYPE HEAT DETECTOR
- RATE COMPENSATION & FAST RESPONSE
- WIDE TEMPERATURE RANGE.
- GOLD PLATED ELECTRICAL CONTACTS.
- CORROSION & SHOCK RESISTANT.
- SINGLE MOUNTING THREAD - Model 1000 - 1 Metric M20
- DUAL MOUNTING THREAD - Model 1000 - 2 Metric M20 & 1/2"NPT
- INTRINSICALLY SAFE:  
Classed as a simple apparatus and installed with a suitable I.S. barrier.



### DESCRIPTION

The Thermac Detector is a heat sensitive electrical switch. It is a fixed temperature device with a factory pre-set temperature in the range 60 °C to 240 °C.

The detector comprises a pair of normally open electrical contacts mounted within a stainless steel probe. A rise in temperature will cause the contacts to close at the set point temperature. With a drop in temperature the procedure reverses and the contacts re-open below the set point temperature.

The detector body is a seamless one-piece unit, precision machined from AISI 316 stainless steel with high corrosion resistance. Electrical contacts are gold/silver plated and lead cables are nickel plated copper with PTFE/glass insulation. Cables are to aircraft engine specification.

The operating parts are factory calibrated and permanently sealed against severe environmental conditions.

### SPECIFICATION

|                                                  |                                                 |
|--------------------------------------------------|-------------------------------------------------|
| Contacts:                                        | ..... Normally open, close on temperature rise. |
| Applied Voltage AC @ 0.25A                       | ..... 32 V max.                                 |
| Applied Voltage DC @ 0.25A                       | ..... 32 V max.                                 |
| Operating Current:                               | ..... 0.25A max.                                |
| Operating or Set Temperature Range:              | ..... +60 °C to +240 °C                         |
| Ambient Temperature Range: (continuous exposure) | ..... -40 °C to +180 °C                         |
| Relative Humidity:                               | ..... 100%                                      |
| Weight:                                          | ..... 150 g.                                    |
| Degree of Protection:                            | ..... IP 67                                     |
| Sensitivity & Accuracy:                          | ..... +/- 5% or 5 degrees                       |
| Mounting Screw Threads:                          | ..... 10 Kgm torque max.                        |

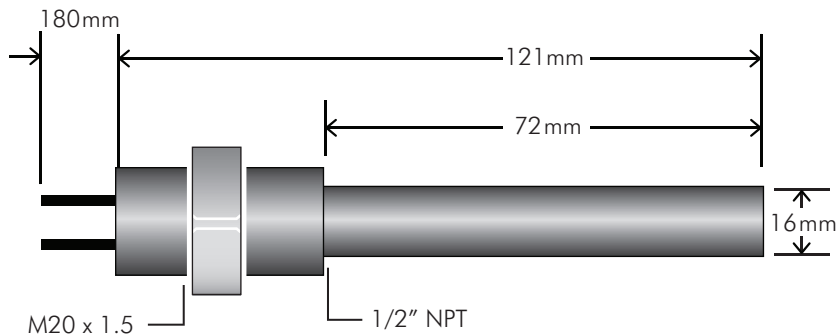
### NOTES:

1. All electrical ratings apply to noninductive loads. Ensure circuit inrush currents do not exceed ratings.
2. Where a detector has been subjected to a fire or overheat, the unit should be returned to Thermac for condition check and calibration.

## TEMPERATURE SETTINGS DEGREES CELSIUS

Detectors may be set to any nominated operating temperature between 60 and 240 degree Celsius.  
Suggested temperature setting 20°C above maximum ambient.

## INSTALLATION



### INSTALLATION OF MODEL 1000 :

#### • NORMAL LOCATIONS

The unit is mounted using the 20mm electrical conduit screw thread to a junction box or to a weatherproof enclosure if there is a risk of water or chemical exposure. Avoid pulling electrical cables or causing cables to be in tension.

#### • THROUGH WALL OR BULKHEAD LOCATIONS

The Model 1000-2 is screwed into a 1/2"–14 NPT hole in the plant or vessel wall to a maximum torque 10 Kgm. Ensure the entire length of the sensing shell (72 mm) is exposed to the heat source.

- Normally open contacts close on temperature rise.
- Cables are 20 swg with 2mm O.D. insulation.
- Installation and connection to be in accordance with AS1603.1, AS1603.4 and AS1670.

### IDENTIFICATION STAMPING ON HEX:

- Serial numbers are 4 or 5 digits, e.g. '10000'
- Set temperature in degrees Celsius, e.g. '120°C'
- Year made: 2020

### IDENTIFICATION MARKING ON BARREL:

' Thermac Model 1000 Detector '  
' Thermal Type E '  
' 0 – 32 Vac 0.25A 0 – 32 Vdc 0.25A '  
' Contacts close on temperature rise '

### TO ORDER:

Please specify Set Temperature (degrees Celsius)  
e.g. TYPE E HEAT DETECTOR, MODEL 1000 –1 @120 °C

### MANUFACTURED BY



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