

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 & ½”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 sealed against severe environmental conditions, further adjustment or calibration is not required.

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:

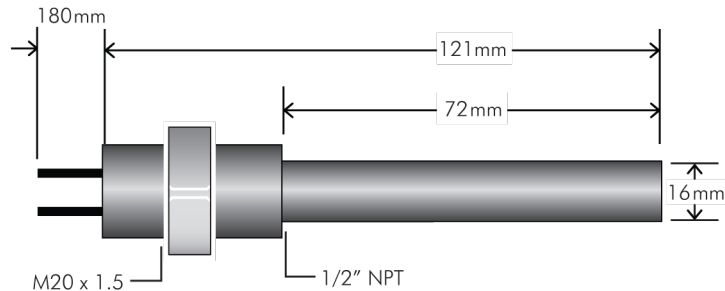
1. All electrical ratings apply to noninductive loads. Ensure circuit inrush currents do not exceed ratings.
2. Where a detector has been subjected to a fire or overheat, the unit should be returned to Thermac for condition check and calibration.

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

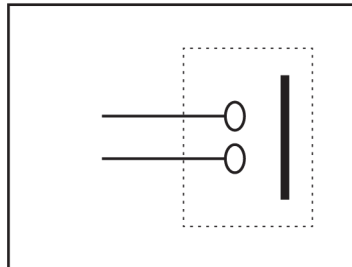


INSTALLATION OF MODEL 1000 :

- **NORMAL LOCATIONS** The unit is mounted using the 20mm electrical conduit screw thread to a standard junction box or equivalent. Apply silicone sealant to cable joints if there is a risk of water or chemical exposure. Avoid pulling electrical cables or causing cables to be in tension.
- **SPECIAL THROUGH WALL 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.

CIRCUIT DIAGRAM:

- 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'

IDENTIFICATION MARKING ON BARREL:

'Thermac Model 1000 Detector'
 'Thermal Type E Made 1994'
 '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