T.M.Electronics (UK) Ltd Technical Data

DATA SHEET

TA06 BLACK BODY TEMPERATURE PROBE TYPE 'T'

BLACK BODY TEMPERATURE PROBE - Type 'T'

Description

This probe uses the principles of a black body to monitor the ambient temperature of an environment. This makes the probe ideal for applications within the gas, electricity and food industries. The probe is often used to monitor ovens and may even be used as a hypothermia alarm.

Construction

A Stainless Steel sphere is painted matt black on the outside whilst the inner surface is bright metal. This ensures that the most incident radiation is absorbed. In this way the probe imitates a black body. Leading out of the sphere is a 2M length of glass fibre Stainless Steel overbraided cable terminated in a miniature thermocouple plug.

Sensor Features

- **STAINLESS STEEL SPHERE PAINTED MATT BLACK TO IMITATE A BLACK BODY.**
- **HIGH ACCURACY THERMOCOUPLE MATERIAL THROUGHOUT**

  Type 'T' Thermocouple :½ Class I (±0.25˚C ±0.15%)

- **WIDE AMBIENT TEMPERATURE SPECIFICATION : -100 TO 400 ˚C (excluding plug)**
- **TIME RESPONSE *(96% of value in moving gas)* : 0.1 Secs**
- **MEASUREMENT RANGE : -100 TO 400 ˚C**

Cross-reference for compatible instruments

Suitable instruments for use with this probe

TME PART No	DESCRIPTION	APPLICATION
MM2000	SINGLE INPUT INSTRUMENT	HIGH ACCURACY TEMPERATURE MEASUREMENT
MM2010	MAX / MIN HOLD INSTRUMENT	HIGH ACCURACY INSTRUMENT WITH MAX, MIN AND HOLD FEATURES
MM2020	DIFFERENTIAL INSTRUMENT	DUAL INPUT INSTRUMENT FOR DIFFERENTIAL MEASUREMENTS
MM2030	THERMOCOUPLE SIMULATOR	HIGH ACCURACY SIMULATOR WITH MEASUREMENT FACILITY