

## DATA SHEET

### TA03 AIR TEMPERATURE PROBE TYPE 'T'

#### AIR TEMPERATURE PROBE - Type 'T'

##### Description

This probe uses the straight handle for fine control. This probe is used for the measurement of the temperature of gasses. It is especially useful for air ducts such as those used in **refrigeration, heating or air conditioning**

##### Construction

The probe features an exposed thermocouple junction protected by a stainless steel funnel sheath : Stainless Steel 316 (Food Grade)  
 Sensor stem measures 110mm length x 4mm diameter  
 Sensor funnel measures 30mm x 13mm diameter  
 2M curly polyurethane cable with moulded connector.

##### **Sensor Features**

- **TOTAL ENCAPSULATION TECHNIQUE FOR MAXIMUM STRENGTH AND DURABILITY.**  
 This results in a solid handle as opposed to a hollow handle. This is particularly important as there is often damage to the handles caused by excess heat. With a hollow handle it is possible to puncture the outer plastic and damage the sensor irreparably.
- **WATERPROOF HANDLE**  
 Due to the total encapsulation method used, all TME probe handles are completely waterproof.
- **TOUGH POLYURETHANE CABLE**
  - Polyurethane cables are used in place of the standard PVC for the following reasons :-
  - Greater retractability
  - Enhanced memory of it's curl
  - Non-Toxic
  - Greater mechanical strength for durability
  - 12 X 0.2mm wires used internally for greater strength.
  - PTFE inner insulation for strength and retractability.
- **HIGH ACCURACY THERMOCOUPLE MATERIAL THROUGHOUT**  
 Type 'T' Thermocouple : ½ Class I (±0.25°C ±0.15%)
- **POLYPROPYLENE HANDLES**  
 Polypropylene is an extremely tough and durable material, commonly used for milk crates; it has good low temperature performance and a relatively high melt temperature. It performs exceptionally well under chemical attack.
- **WIDE AMBIENT TEMPERATURE SPECIFICATION** : -30 TO 50 °C
- **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