



# Duct Averaging Temp Sensors

## Model TE-705



- Two probe construction options— 3/8” (9mm) bendable thin wall aluminum probe or multiple sensor modules interconnected with plenum rated cable.
- TE-705-A incorporates rugged aluminum sensor strain reliefs, four fast response environmentally sealed sensor modules and plenum rated cable for reliable performance and low cost installation.
- Available with plastic, galvanized steel or NEMA-4 / IP-65 steel enclosure to cover all applications.
- More than 12 types of interchangeable NTC thermistors, precision platinum, nickel or balco RTD’s are available for universal compatibility.

TE-705-A incorporates four even spaced sensor modules over 6, 12 or 24 ft / 1.8, 3.6 or 7.2 meter lengths. The modules are interconnected with plenum rated cable strain relieved across the sensor with a patented aluminum bracket. The sensor modules are environmentally sealed and corrosion free plastic, galvanized steel or NEMA-4/IP-65 steel enclosures are available. TE-705-A provides a cost effective and reliable solution for measuring average supply air temperature in large ducts or plenums. TE-705-B bendable aluminum probe averaging temperature sensor also has four evenly spaced sensors and galvanized steel or NEMA-4 / IP\_65 enclosure. TE-705-B is an ideal product for high air flow systems.



8189 Century Boulevard • Minneapolis, MN 55317-8002 • USA  
 800-843-5116 • 952-556-4900 • Fax 952-556-4997  
 sales@mamacsys.com • www.mamacsys.com

Baird House, Units 6&7  
 Pensnett Estate • Kingswinford  
 West Midlands • DY6 7YA • United Kingdom  
 01384-271113 • Fax 01384-271114

4 Armingier Court, Unit 2  
 Holden Hill • S.A. 5088 • Australia  
 08-8395-4333 • Fax 08-8395-4433

155 McIntosh Drive, Units 5&6 • Markham  
 Ontario • L3R ON6 • Canada  
 905-474-9215 • Fax 905-474-0876

No. 22 Lorong 21A Geylang # 11-02  
 Prosper Industrial Building  
 Singapore • 388421  
 656-3927273 • Fax 656-3927276

## SPECIFICATIONS:

|                       |   |
|-----------------------|---|
| Platinum RTD sensors: | +/- 0.1% @ 0 C, Alpha : 385 per DIN 43760                 |
| Nickel RTD sensors:   | +/- 0.5 F @ 70 F / 21.1 C, 6000 PPM/K T.C.R.              |
| Balco RTD sensors:    | +/- 0.5 F @ 70 F /21.1 C, 4300 PPM/K T.C.R.               |
| Thermistor sensors:   | +/- 0.2 C interchangeability @ 77 F/ 0 C                  |
| Probe Material:       | 1/4" / 6.3mm O.D, 0.020" / 0.5mm wall 304 Stainless Steel |
| Flange Material:      | 304 Stainless Steel                                       |
| Bulkhead Fitting:     | Brass with poly compression sleeve                        |
| Plastic Enclosure:    | Polycarbonate 30% glass filled, rated UL 94V-5-0          |
| Steel NEMA-1 / IP-30: | 18 Ga. Galvanized Steel                                   |
| Steel NEMA-4 / IP-65: | 18 Ga. Cold Rolled Steel, Powder coated                   |

## ORDERING INFORMATION: TE-705

| Installation                                       | Sensor*                          | Probe Length           | Probe Type                              |
|--|----------------------------------|------------------------|---|
| <b>A</b> Polycarb plastic Enclosure <sup>1</sup>   | <b>1</b> 100 ohm Platinum RTD    | <b>A</b> 6 feet/1.8 m  | <b>1</b> Bendable 3/8" Aluminum         |
| <b>B</b> Galvanized steel Enclosure NEMA-1 / IP-30 | <b>3</b> 1000 ohm Platinum RTD   | <b>B</b> 12 feet/3.6 m | <b>2</b> Multiple sensors, plenum cable |
| <b>C</b> Painted Steel Enclosure NEMA-4 / IP-65    | <b>4</b> 1000 ohm Nickel RTD     | <b>C</b> 24 feet/7.2 m |   |
|  | <b>5</b> 1000 ohm Balco RTD      |                        |   |
| <b>C</b>   | <b>7</b> 10,000 ohm thermistor   | <b>C</b>               |   |
|  | <b>10</b> 3,000 ohm thermistor   |                        |   |
| <b>C</b>   | <b>12</b> 10,000 ohm thermistor  | <b>C</b>               |   |
|  | <b>13</b> 5,000 ohm thermistor   |                        |   |
| <b>C</b>   | <b>15</b> 100,000 ohm thermistor | <b>C</b>               |   |
|  | <b>17</b> 20,000 ohm thermistor  |                        |   |
| <b>C</b>   | <b>18</b> 2,252 ohm thermistor   | <b>C</b>               |   |
|  | <b>21</b> 1,800 ohm thermistor   |                        |   |

<sup>1</sup> Available with the multiple sensor, plenum cable style only.

**Example: TE-705-B-10-B-2:** Duct averaging sensor, 12 feet flexible plenum cable multiple sensor probe, 3000 ohm thermistor, NEMA-1 enclosure.

\* For sensor compatibility, please refer to TI.700-10.

\*\* For a complete Resistance vs. Temperature tables, please refer to TI.700-11.

