



# MicroMetl

Sensors

Product Data Sheet



# MicroMetl

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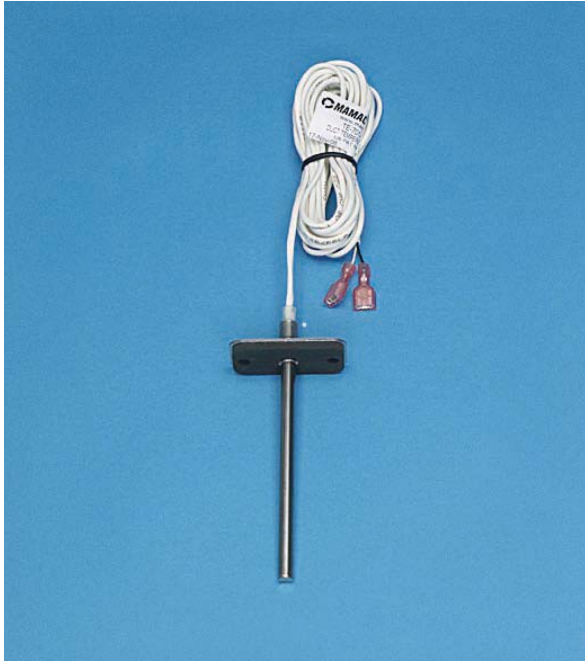
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# VAV Discharge Air Temp Sensor



Model TE-701-BX

RoHS



- Designed for VAV discharge air temperature sensing. Comes with 12 feet of plenum rated cable and 1/4" quick disconnects for ease of installation to any VAV controller.
- 304 SS thin wall probe with a cold rolled hermetically sealed end forms a monolithic encapsulation cavity for the sensor and is immune to failures caused by high humidity, contamination, thermal shock and vibration.
- The flat probe end provides a large thermally sensitive area and the sensor is in direct thermal contact to this surface. As a result, extremely fast response is achieved to changes in temperature.
- Probe is crimped to the flange using a patented process to provide a rugged, reliable and low profile attachment for ease of installation.
- More than 16 types of interchangeable NTC thermistors, precision platinum, nickel or balco RTDs are available for universal compatibility.

TE-701-BX is an enhanced version of the popular TE-701-B duct temperature sensor. Plenum rated cable has been extended to 12 feet and 1/4" quick disconnects have been added to customize the sensor for VAV applications and to provide a low cost, labor saving solution for most of the VAV controllers in the industry. The sensor is available in 4 or 6 inch probe length to accommodate any size discharge air duct. For additional specifications please refer to the TE-701/702 data sheet.



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# TE-701-BX

## SPECIFICATIONS:

|                                 |                                                             |
|---------------------------------|-------------------------------------------------------------|
| <b>Platinum RTD sensors:</b>    | +/- 0.1% @ 0 C, Alpha : 385 per DIN 43760                   |
| <b>Nickel RTD sensors: (#2)</b> | +/- 0.5 C @ 0 C, 5000 PPM/K T.C.R.                          |
| <b>Nickel RTD sensors: (#4)</b> | +/- 0.5 F @ 70 F / 21.1 C, 6000 PPM/K T.C.R.                |
| <b>Balco RTD sensors:</b>       | +/- 0.5 F @ 70 F / 21.1 C, 4300 PPM/K T.C.R.                |
| <b>Thermistor sensors:</b>      | +/- 0.2 C interchangeability @ 77 F / 25 C                  |
| <b>Probe Material:</b>          | 1/4" / 6.3 mm O.D, 0.020" / 0.5 mm wall 304 Stainless Steel |
| <b>Flange Material:</b>         | Galvanized Steel                                            |
| <b>Operating Temp:</b>          | -40F/-40C to 210F/100C                                      |
| <b>Ambient Temp:</b>            | -40F/-40C to 160F/70C                                       |
| <b>Warranty:</b>                | Five Years (Lifetime on Moisture Migration)                 |
| <b>EMC Conformance:</b>         | EN 55022, 55024, 61000-3-3, 61000-4-2, 3, 4, 5, 6 & 11      |
| <b>RoHS Compliant</b>           |                                                             |

**Covered under: U.S. PATENT NO. 6457857, 7036224**

## ORDERING INFORMATION: TE-701-BX

| Temperature Sensor                            | Probe Length            |
|-----------------------------------------------|-------------------------|
| <b>1</b> 100 ohm Platinum RTD                 | <b>A</b> 4 inches/100mm |
| <b>2</b> 1,000 ohm Nickel RTD (5000 PPM)      | <b>B</b> 6 inches/150mm |
| <b>3</b> 1,000 ohm Platinum RTD               |                         |
| <b>4</b> 1,000 ohm Nickel RTD (6000 PPM)      |                         |
| <b>5</b> 1,000 ohm Balco RTD                  |                         |
| <b>7</b> 10,000 ohm NTC thermistor (Type III) |                         |
| <b>8</b> 10,000 ohm NTC thermistor (Carel)    |                         |
| <b>10</b> 3,000 ohm NTC thermistor            |                         |
| <b>12</b> 10,000 ohm NTC thermistor (Type II) |                         |
| <b>13</b> 5,000 ohm NTC thermistor            |                         |
| <b>14</b> 1,035 ohm Silicon PTC               |                         |
| <b>15</b> 100,000 ohm NTC thermistor          |                         |
| <b>16</b> 10,000 ohm NTC thermistor (Eliwell) |                         |
| <b>17</b> 20,000 ohm NTC thermistor           |                         |
| <b>18</b> 2,252 ohm NTC thermistor            |                         |
| <b>21</b> 1,800 ohm NTC thermistor            |                         |

**Example: TE-701-BX-12-A:** VAV Discharge Air Temp Sensor with 10,000 ohm NTC thermistor (Type II) and 4 inch probe length.

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

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

\*\*\* For additional information including dimensional drawings, please refer to DN701/2.4.

**CAUTION: Do not use in explosive/hazardous environment or with flammable/combustible media.**

## TE-701-BX



**MAMAC Systems is the leading global manufacturer of sensors, transducers, control peripherals and web browser based IP appliances. MAMAC products are used for HVAC and environmental controls, remote monitoring, alarming, energy metering and industrial automation.**

**All MAMAC products are manufactured in the USA.**

**WARRANTY:** MAMAC Systems, Inc. and its subsidiaries (hereinafter referred to as MAMAC Systems) warrants its products to be free of defects in material and workmanship for a period of five (5) years from date of shipment. If a unit is malfunctioning, it must be returned to the factory for evaluation. A return authorization number (RMA) will be issued by the customer service department and this number must be written or prominently displayed on the shipping boxes and all related documents. The defective part should be shipped freight pre-paid to the factory. Upon examination by MAMAC Systems, if the unit is found to be defective, it will be repaired or replaced at no charge to the customer. However, this warranty is void if the unit shows evidence of being tampered with, damaged during installation, misapplied, misused, or used in any other operating condition outside of the unit's published specifications.

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