

Outdoor Air Temperature Sensor



Model TE-205-F

RoHS



- Rugged, die cast aluminum construction, NEMA 4 (IP65) rating
- Liquid tight cord connector isolates sensor chamber from mechanical room building envelope ensuring accurate temperature reading.
- Precision 1/2" NPT threaded hub enables trouble-free field installation
- More than 16 types of interchangeable NTC thermistors, precision platinum, nickel or balco RTDs are available for universal compatibility

The TE-205-F Outdoor Air Temperature Sensor meets the rigorous requirements of building owners and control professionals who need reliable outdoor air temperature data. This rugged, reliable outdoor air sensor incorporates more than thirty plus years of product development and experience drawn from millions of installations world wide in all types of climatological situations. The TE-205-F features the well known MAMAC Systems temperature probe, carefully sealed in the aluminum enclosure to prevent building air from escaping across the sensor. The temperature probe features cold rolled 304 stainless steel that is hermetically sealed to form a monolithic encapsulated cavity for the sensor and is immune to failure 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 the surface. As a result, extremely fast response is achieved to changes in temperature. This product and process design combined with automated manufacturing processes yields a rugged, reliable, repeatable and stable outdoor air temperature sensor at a low cost.



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

4200 Waterside Centre
Solihull Parkway
Birmingham • West Midlands
B37 7YN • United Kingdom
01384-271113 • Fax 01384-271114

1 Fullerton Road #02-01
One Fullerton
Singapore • 049213
65-31581826 • Fax 65-31581826

4 Armiger Court, Unit 2
Adelaide • S.A.
5088 • Australia
08-8395-4333 • Fax 08-8395-4433

675 Cochrane Drive
East Tower • 6th Floor
Toronto • Ontario
L3R 0B8 • Canada
905-474-9215 • Fax 905-474-0876

TE-205-F

SPECIFICATIONS:

Platinum RTD sensors:	+/- 0.1% @ 0 C, Alpha : 385 per DIN 43760
Nickel RTD sensors: (#2)	+/- 0.5 C @ 0 C, 5000 PPM/K T.C.R.
Nickel RTD sensors: (#4)	+/- 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/ 25 C
Probe Material:	1/4" / 6.3mm O.D, 0.020" / 0.5mm wall 304 Stainless Steel
Enclosure:	Die cast aluminum alloy A360
Operating Temp:	-40F/-40C to 210F/100C
Ambient Temp:	-40F/-40C to 160F/70C
Weight	5.6 oz (159 g)

CONFORMANCE & TESTING:

RoHS Compliant

EMC Testing:

BS EN 55022:1998, BS EN 55024:1998,
EN 61000-3-3, EN 61000-4-2,
EN 61000-4-3, EN 61000-4-4,
EN 61000-4-5, EN 61000-4-6,
EN 61000-4-11

ORDERING INFORMATION: TE-205-F-

Temperature Sensor	
--------------------	--

- | | |
|-----------|--------------------------------------|
| 1 | 100 ohm Platinum RTD |
| 2 | 1,000 ohm Nickel RTD (5000 PPM) |
| 3 | 1,000 ohm Platinum RTD |
| 4 | 1,000 ohm Nickel RTD (6000 PPM) |
| 5 | 1,000 ohm Balco RTD |
| 7 | 10,000 ohm NTC thermistor (Type III) |
| 8 | 10,000 ohm NTC thermistor (Carel) |
| 10 | 3,000 ohm NTC thermistor |
| 12 | 10,000 ohm NTC thermistor (Type II) |
| 13 | 5,000 ohm NTC thermistor |
| 14 | 1,035 ohm Silicon PTC |
| 15 | 100,000 ohm NTC thermistor |
| 16 | 10,000 ohm NTC thermistor (Eliwell) |
| 17 | 20,000 ohm NTC thermistor |
| 18 | 2,252 ohm NTC thermistor |
| 21 | 1,800 ohm NTC thermistor |

Example: TE-205-F-3:

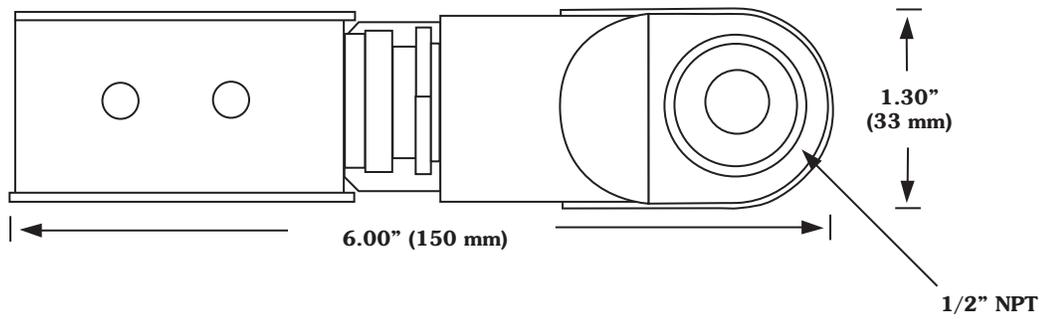
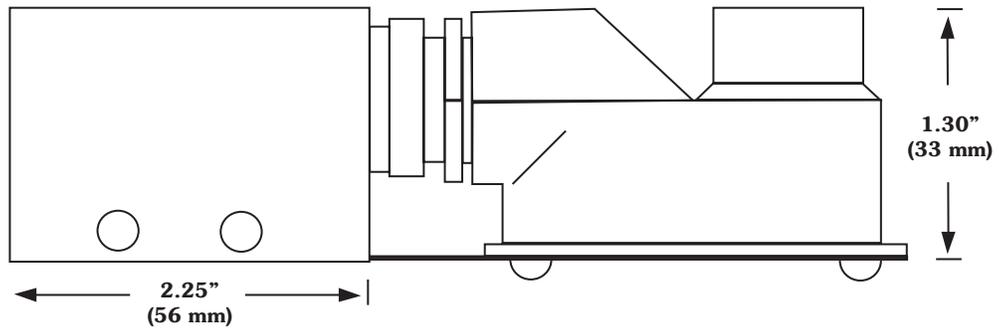
Outdoor Air Sensor with 1,000 ohm platinum RTD

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

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

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

TE-205-F



TE-205-F



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.

MAMAC Systems makes no other warranties or representations of any kind whatsoever, expressed or implied, except that of title. All implied warranties including any warranty of merchantability and fitness for a particular purpose are hereby disclaimed. User is responsible to determine suitability for intended use.

LIMITATIONS OF LIABILITY: The remedies of buyer set forth herein are exclusive and the total liability of MAMAC Systems with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the product upon which liability is based. **In no event shall MAMAC Systems be liable for consequential, incidental or special damages.** MAMAC Systems reserves the right to change any specifications without notice to improve performance, reliability, or function of our products.

Every precaution for accuracy has been taken in the preparation of this manual, however, MAMAC Systems neither assumes responsibility for any omissions or errors that may appear nor assumes liability for any damages that result from the use of the product in accordance with the information contained in the manual.

MAMAC 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

4200 Waterside Centre
Solihull Parkway
Birmingham • West Midlands
B37 7YN • United Kingdom
01384-271113 • Fax 01384-271114

1 Fullerton Road #02-01
One Fullerton
Singapore • 049213
65-31581826 • Fax 65-31581826

4 Armiger Court, Unit 2
Adelaide • S.A.
5088 • Australia
08-8395-4333 • Fax 08-8395-4433

675 Cochrane Drive
East Tower • 6th Floor
Toronto • Ontario
L3R 0B8 • Canada
905-474-9215 • Fax 905-474-0876