



TACMET II

WEATHER SENSOR SYSTEM (EMI)



Met One Instruments' TACMET II Weather Sensor (EMI) is a second-generation weather sensor, which includes a number of features now possible with new sensor technology as a result from our commitment to product improvement. The TACMET II (EMI) incorporates Met One's new and unique folded-path, low-power sonic anemometer, the Sonimometer, with temperature sensor, a fast-response capacitive relative humidity sensor, and a flux-gate compass. An on-board microprocessor provides a digital output

message; RS-232C is standard; RS-485 is available as an option. Special output formats are also available. Preserving much of the compact size and weight, low power, and reliability of its predecessor, the TACMET II (EMI) is available with optional barometric pressure sensors, which have accuracies ranging from ±1.50 hPa to ±0.40 hPa. The TACMET II (EMI) wind direction data will automatically be oriented to magnetic North if the optional flux gate compass is selected.



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The TACMET II Weather Sensor (EMI) is designed for maximum durability, portability, and utility, making it uniquely applicable for rapid deployment and use by one person under adverse conditions. The sensor may be mounted on a tripod or vehicle mast.

The TACMET II Weather Sensor (EMI) is supported by a number of accessories, including: carrying cases; hand-held displays; compact, lightweight tripods; and, depot repair and calibration fixtures.

The TACMET II Weather Sensor (EMI) has an aluminum housing and special filtering for EMI/RFI resistance. Several paint colors are available.





FEATURES:

- Sonimometer Wind Sensor
- Fast Response Relative Humidity Sensor
- Flux-Gate Compass
- Internal Barometric Pressure Sensor
- Digital Output

Instrument Expert Original factory packaging

www.dorgean.com

SPECIFICATIONS

TACMET II (EMI)

PERFORMANCE:

Wind Speed 0-62 m/s (0-139 mph) Range ±0.5 m/s (1.1 mph) or 5% Accuracy * Resolution $0.1\,\text{m/s}$ or $0.1\,\text{mph}$ Repeatability $\pm 0.2 \, \text{m/s} \, (0.45 \, \text{mph}) \, \text{or} \, 5\%$

Wind Direction

0 to 360° Range

Accuracy * ± 3° @ wind speed > 2.2m/s (5 mph)

Resolution ±1.0°

Compass 3

Accuracy +/- 3 & +/- 2 = max +/- 5

Temperature

Range -40°C to +60°C (-40°F to 140°F) Accuracy ±2.0°C (±3.6°F)@WS>2.0 m/s (4.5 mph)

Resolution ±0.1°C

Relative Humidity

0 - 100 % Range Accuracy ±3% Resolution ±1.0%

Pressure

Range 600 - 1100 hPa

Accuracy Refer to configuration guide

Resolution ±0.1 hPa

ELECTRICAL:

Measurement Rate

Base Part Number 102304-

Measurement Format Two orthogonal axes, North/South

and East/West 2 Hz each axis

This accuracy is maintained when the sensor is within ± 10 degrees of vertical

Operating Frequency Signal Output

Power Requirements

ENVIRONMENTAL:

Temperature Humidity Altitude

PHYSICAL: Weight

Size

Mounting

Colors

SHIPPING:

Weight Volume

40 KHz

RS-232C, RS-422 or RS-485 ASCII

@ 1200/19200 BPS

9.5-36 Vdc @ 50 mA nominal,

option dependent

-40° to 60°C (-40° to 140°F)

0-100%

-100 to +12,000 ft MSL

1.8 Kg (4.0 lbs.)

311 mm (12.25") high by 101.6 mm (4.0") diameter MS3102R18-1P connector or

P/N 102621-XX Quick Mount to

3/4" vertical pipe stub

Finished per MIL-DTL-64159, Color CARC Green 383, 34094 Finished per MIL-DTL-64159, Color CARC Tan 686A, 33446 Finished per MIL-DTL-64159, Color CARC Aircraft White, 37875 Finished per MIL-DTL-64159, Color CARC Sand, 33531

2.5 Kg (5.5 lbs) $0.012 \,\mathrm{m}^3 \,(0.44 \,\mathrm{ft}^3)$

** OPTIONAL

102304 TACMET II Options Configuration Guide

CARC Green **Body Paint** Options *** CARC Tan В **CLEAR ANODIZE CARC Sand** D

CARC Tan **Shield Paint CARC** White Options ***

(C body paint option only) GLOSS WHITE 4 CARC Sand RS-232C

Serial Output RS-422/RS-485 Options Baud / Output 1200 1234567 2400 Options 4800 9600 19200 (requires option H) 485 Tracker

NMEA Averaging Options Instantaneous Running Avg MPH, 0 to 145 Speed Units

M/S. 0 to 65 Knots, 0 to 125 Kilometers/Hr, 0 to 234 MPH-A, 0 to 100 M/S-A, 0 to 50 Knots-A, 0 to 100 Temperature Units Degrees F, -40° to +140°

Degrees C, -40° to +60°

Pressure Options 102716 Sensor (± 0.04 in Hg, 17.71-32.45 in Hg)

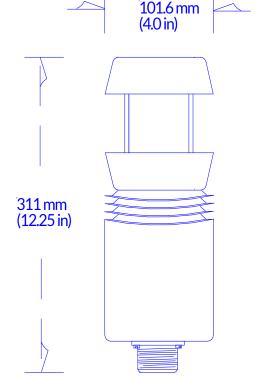
102716 Sensor (± 1.50 hPa, 600-1100 hPa) 102555 Sensor ± 0.01 in Hg, 17.71-32.45 in Hg) 102555 Sensor (± 0.4 hPa, 600-1100 hPa)

Compass Option None

Electronic Flux Gate Compass **EMI Shielding** Hardened EMI (included with all sensors)

*** COLORS FINISHED PER MIL-DTL-64159, COLOR CARC GREEN 383, 34094 FINISHED PER MIL- DTL-64159, COLOR CARC TAN 686A, 33446 FINISHED PER MIL- DTL-64159, COLOR CARC ARCRAFT WHITE, 37875 FINISHED PER MIL- DTL-64159, COLOR CARC SAND, 33531

М1 M2 **S1** S2





Specifications are subject to change at any time.

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