

## 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  $\pm 1.50$  hPa to  $\pm 0.40$  hPa. The TACMET II (EMI) wind direction data will automatically be oriented to magnetic North if the optional flux gate compass is selected.

## TACMET II

### WEATHER SENSOR SYSTEM(EMI)

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

# SPECIFICATIONS

# TACMET II (EMI)

## PERFORMANCE:

### Wind Speed

Range	0-62 m/s (0-139 mph)
Accuracy *	±0.5 m/s (1.1 mph) or 5%
Resolution	0.1 m/s or 0.1 mph
Repeatability	±0.2 m/s (0.45 mph) or 5%

### Wind Direction

Range	0 to 360°
Accuracy *	± 3° @ wind speed > 2.2m/s (5 mph)
Resolution	±1.0°

### Compass \*\*

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

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

### Pressure

Range	600 - 1100 hPa
Accuracy	Refer to configuration guide
Resolution	±0.1 hPa

## ELECTRICAL:

Measurement Format Two orthogonal axes, North/South and East/West

Measurement Rate 2 Hz each axis

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

### \*\* OPTIONAL

### 102304 TACMET II Options Configuration Guide

Base Part Number 102304-

Body Paint CARC Green A

Options \*\*\* CARC Tan B

CLEAR ANODIZE C

CARC Sand D

Shield Paint CARC Tan 2

Options \*\*\* CARC White 3

(C body paint option only) GLOSS WHITE 4

CARC Sand 5

Serial Output RS-232C G

Options RS-422/RS-485 H

Baud / Output 1200 1

Options 2400 2

4800 3

9600 4

19200 5

(requires option H) 485 Tracker 6

NMEA 7

Averaging Options Instantaneous Running Avg J

Speed Units MPH, 0 to 145 K 1

M/S, 0 to 65 2

Knots, 0 to 125 3

Kilometers/Hr, 0 to 234 4

MPH-A, 0 to 100 5

M/S-A, 0 to 50 Knots-A, 0 to 100 6

Temperature Units Degrees F, -40° to +140° 1

Degrees C, -40° to +60° 2

Pressure Options None XX

102716 Sensor (± 0.04 in Hg, 17.71-32.45 in Hg) M1

102716 Sensor (± 1.50 hPa, 600-1100 hPa) M2

102555 Sensor ± 0.01 in Hg, 17.71-32.45 in Hg) S1

102555 Sensor (± 0.4 hPa, 600-1100 hPa) S2

Compass Option None X

Electronic Flux Gate Compass P

EMI Shielding Hardened EMI (included with all sensors) 1

\*\*\* 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 AIRCRAFT WHITE, 37875 FINISHED  
PER MIL-DTL-64159, COLOR CARC SAND, 33531

Operating Frequency 40 KHz

Signal Output RS-232C, RS-422 or RS-485 ASCII @ 1200/19200 BPS

Power Requirements 9.5-36 Vdc @ 50 mA nominal, option dependent

## ENVIRONMENTAL:

Temperature -40° to 60°C (-40° to 140°F)

Humidity 0-100%

Altitude -100 to +12,000 ft MSL

## PHYSICAL:

Weight 1.8 Kg (4.0 lbs.)

Size 311 mm (12.25") high by 101.6 mm (4.0") diameter

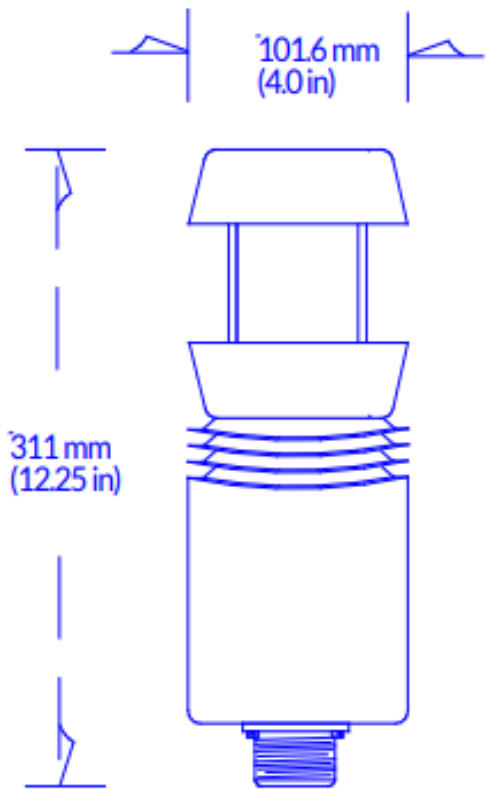
Mounting MS3102R18-1P connector or P/N 102621-XX Quick Mount to 3/4" vertical pipe stub

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 Aircraft White, 37875  
Finished per MIL-DTL-64159, Color CARC Sand, 33531

## SHIPPING:

Weight 2.5 Kg (5.5 lbs)

Volume 0.012 m<sup>3</sup> (0.44 ft<sup>3</sup>)



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Instruments**