



TACMET II WEATHER SENSOR SYSTEM (RLST)

FEATURES:

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

Climatronics' TACMET II Weather Sensor System (RLST), P/N 102352, is a second-generation weather sensor, which includes a number of features now possible with new sensor technology resulting from our commitment to product improvement. The TACMET II incorporates Climatronics' new, low-power sonic anemometer, the Sonimometer™, with a fast-response capacitive relative humidity sensor, a flux-gate compass, and an on-board microprocessor providing a digital output.

Preserving much of the compact size and weight, low power, and reliability of its predecessor, the TACMET II now includes barometric pressure in its set of measurements, including wind speed, wind direction resolved to magnetic North, temperature, and relative humidity.

The TACMET II Weather Sensor System (RLST) 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.

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

TACMET II Weather Sensor System (RLST) has an aluminum housing and special filtering for EMI/RFI



resistance. The sensor is painted color is CARC green and white.

SPECIFICATIONS:

PERFORMANCE:

P/N 102352 (NSN 6660-01-496-9900)

Wind Speed

Range 0-65 m/s (0-145 mph)
Accuracy * ± 0.5 m/s (1.1 mph) or 5%
Resolution 0.1 m/s (0.22 mph)
Repeatability ± 0.2 m/s (0.45 mph) or 5%

Wind Direction

Range 0-360°
Accuracy * $\pm 3^\circ$ @ wind speed > 2.2m/s (5 mph) (Including compass error)
Resolution $\pm 1.0^\circ$

Compass

Accuracy $\pm 2^\circ$

Temperature

Range -40°C to +60°C (-40°F to 140°F)
Accuracy $\pm 2.0^\circ\text{C}$ ($\pm 3.6^\circ\text{F}$) @ WS > 2.0 m/s (4.5 mph)
Resolution $\pm 0.1^\circ\text{C}$

Relative Humidity

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

Pressure (P/N 102298)

Range 600 - 1100 hPa
Accuracy ± 0.65 hPa
Resolution ± 0.1 hPa

ELECTRICAL:

Measurement Format Two orthogonal axes, North/South and East/West
Measurement Rate 2 Hz each axis
Operating Frequency 40 KHz
Signal Output RS-232C @ 19200 BPS, no parity, 8 data bits, 1 stop bit
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") dia.
Mounting P/N 102287 RLST mount, MS3102R18-1P connector, or
P/N 102286-XX, sensor mount to 3/4", 1", or 1.25" IPS vertical pipe stub
Color Finished per MIL-DTL-64159, Color CARC Green 383, 34094 (body)
and MIL-DTL-64159, Color CARC Aircraft White, 37875 (shield plates)

SHIPPING:

Weight 2.5 Kg (5.5 lbs)
Volume 0.012 m³ (0.44 ft³)

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



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