PENTAIR ENVIRONMENTAL SYSTEMS

All-In-One Weather Stations

Overview

Solid state meteorological instruments have greatly improved measurement accuracy, simplified installation and reduced maintenance by eliminating moving parts. The instruments integrate perfectly with the Pentair ENVOY Telemetry Station for the ultimate modern station:

- A range of all-in-one instrument sets to suit any combination of meteorological parameters
- Simple 3-wire digital interface (SDI12) ideally suited to the ENVOY telemetry station
- Standard ENVOY datalogger programs and ENVAULT web page configurations for programming free deployment
- No moving parts for wind measurement eliminating bearing maintenance
- Compass corrected wind direction for moving platforms
- Wind tunnel calibration
- Calibrated output allowing instruments to be changed without changing the station programming
- Naturally aspirated radiation shield for correct exposure
- Covered ultrasonic WS/WD conforming to WMO and European Standards
- Recommended to pair with external tipping bucket rain gauge for land based installations (for better accuracy). Radar model suitable for moving platforms

OPTIONS	MET200	MET300	MET501/502	MET600	MET601
Temp		Yes	Yes	Yes	Yes
Humidity		Yes	Yes	Yes	Yes
Pressure		Yes	Yes	Yes	Yes
Rainfall				Radar	Tip. Bucket
Wind Dir.	Yes		Yes	Yes	Yes
Wind Spd.	Yes		Yes	Yes	Yes
Solar Rad.			Yes		
Image	 ventus				
Power Consumption	25mA 24mA	70mA 7mA	85mA 25mA	130mA 85mA	85mA 24mA

Power Consumption: First figure is with all measurements fully available (no heating). Second figure is with measurements made after SDI measurement instruction. For radar rain sensor, the radar is on for short duration unless rain is detected.

Temperature	Range	-50 to +60°C
	Accuracy	±0.2°C (-20°C to 50°C), ±0.5°C (full range)
Humidity	Range	0 to 100% RH
	Accuracy	±2% RH
Air Pressure	Range	300 to 1200hPa
	Accuracy	±0.5hPa (0 to 40°C)
Rainfall (Tipping Bucket)	Range	0 to 500mm/hr
	Accuracy	±2% at 25mm/hr
Rainfall (Radar)	Range	Drop size 0.3 to 5mm
	Reproducibility	Typically >90%
Wind Direction	Range	0 to 360 (no dead band, ultrasonic)
	Accuracy*	<3° root mean square errors. *Ventus model 2°
Wind Speed	Range	0 to 75m/s
	Accuracy*	±0.3m.s, or 3% (0 to 35m/s), ±5% (>35m/s). ±0.2m.s, or 2% for Ventus model
Solar Radiation ISO 2nd Class thermopile(WS501)	Range	300 to 2,800nm (spectral) 1400 W/m2 (measuring)
	Accuracy	<1% (Non linearity) <1% (Non-stability, change/year) <1% (Tilt error)
Solar Radiation Pyranometer (WS502)	Range	300 to 1,100nm (spectral) 0 to 1400W/m² (measuring)

Various mounting options available to support WMO, European and American exposure standards

Specialist Expertise

We design innovative environmental and water monitoring solutions. Our specialist categories include: Flood Solutions, Irrigation Solutions, Hydrographic and Water Quality Monitoring, Water Infrastructure Management, Environmental Software Solutions, Online Data Access (ENVAULT) and Remote Data Access (ENVOY).

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Innovative, integrated environmental solutions