



Meteorological Sensor Suite

Integrated, Turnkey Monitoring System



YSI Vertical Profiling System with Meteorological Sensor Suite, deployed in drinking water reservoir. Wind direction (top), speed, and relative humidity sensors are mounted on the mast.

Gather weather data alone or as a complement to water quality data – with a single integrated system. YSI Systems works directly with individual customers to design, install, and service a fully customized, full-service environmental monitoring system, including the meteorological sensor component.

Features:

- Simple design and single interface cable make the met unit easy to install, maintain, and replace
- Rugged design and sensors withstand a variety of weather conditions
- Customizable to your application with up to nine sensors
- Use in conjunction with data logger for remote monitoring
- One-year warranty

Power and Mounting Options

YSI offers 15-foot and 45-foot welded truss towers for optimum meteorological sensor deployment on land. A mast kit is available for surface water applications. For extended use in the field, YSI recommends the solar panel kit to enable uninterrupted data collection.

Pure
Data for a
Healthy
Planet.®

Collect weather data as part of land-based or marine monitoring systems



Met sensors and accessories configured on a land-based tower.



To order, or for more information, contact Endeco/YSI Systems.

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(Yellow Springs facility)

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Meteorological Sensors & Accessories Specifications

6213/6219 MET Sensor Suite:

	Height	20 in (51 cm)
	Length	22 in (56 cm), includes vane and propeller
	Propeller Diameter	7.1 in (18 cm)
	Weight	2.2 lbs (1 kg)
Wind Speed	Range	0 to 134 mph (60 m/s)
	Survival	220 mph (100 m/s)
	Threshold	2.2 mph (1.0 m/s)
	Temp Range	-40 to +40°C
	Power Draw	Virtually none
	Signal Output	Sine wave, 90 Hz / 8.8m/s
Wind Direction	Range	360° mechanical, 355° electrical
	Survival	220 mph (100 m/s)
	Threshold	2.2 mph (1.0 m/s)
	Delay Distance	4.3 ft (1.3 m)
	Temp Range	-40 to +40°C
	Power Draw	Virtually none
	Signal Output	Analog VDC from precision low-torque conductive plastic potentiometer
Relative Humidity	Range	1 to 100%
	Accuracy	± 4%
	Temp Range	-40 to 125°C
Air Temperature	Range	-40 to 125°C
	Accuracy	± 0.3°C

Anemometer (Wind Speed & Direction)	Range (speed)	0 to 134 mph (60 m/s)
	Range (direction)	360°
	Weight	0.5 kg
	Signal Output	RS232/422/485/SDI-12; two analog outputs optional

6217 Barometer	Pressure Range	18 to 32 in (600 to 1100 mBar) (455 to 823 mm)
	Resolution	0.01 in (0.1 mm)
	Accuracy	±0.05 hPa from 0 to 30°C (32 to 86°F); ±1 hPa from -52 to 60°C (-60 to 140°F)
	Temp Range	-40 to 85°C

Compass	Type	Fluxgate, gimballed, HS8000
	Operating Voltage	12VDC ±30%
	Operating Current	30 ma (typically)
	Operating Temp	-20 to +70°C
	Accuracy	± 1° @ 25°C
	Resolution	0.1°
	Gimballing	± 45°
	Output	NMEA 0183
	Weight	275 g

Liquid Precipitation:

Rainfall	Area	60 cm ²
	Resolution	0.01 mm
	Accuracy	5%
Rain Duration	Resolution	10 s
Rain Intensity	Range	0 to 200 mm/h
	Resolution	0.01 mm/h
Hail	Resolution	0.1 hits cm ²
Hail Duration	Resolution	10 s
Hail Intensity	Resolution	0.1 hits/cm ² h

6212 CE Pyranometer	Sensitivity	80 µA per 1000 W/m ²
	Accuracy	Absolute error <5% (typical < 3%), under natural daylight conditions
	Temp Drift	0.15% per °C maximum
	Impedance	147 ohms
	Linearity	1% for 0 to 3000 W/m ²

6241 Solar Panel	Temp Range	-40 to 90°C
	Power	10 to 30 watts
	Simulated wind loading	125 mph (57 m/s)
	Humidity	Repetitive freeze/thaw cycling at 85%
	Hail (simulated impact)	1 in. hail at 52 mph (25 mm at 24 m/s)

6251 Tower	Max. height	15 ft
6252 Tower	Max. height	45 ft