SWS Smart Weather Sensor

The SWS smart weather sensor is Precise, Rugged and Versatile Embedded weather station.

Professional Measurements:

- Temperature;
- Humidity;
- Barometric Pressure;
- Wind speed and direction;
- Rainfall.

Easy field deployment:

- No moving parts;
- Rugged and compact form-factor;
- Up-To 100 m cable length.

SWS Smart Weather Sensor

Components

Product Code	
PENV-00004	SWS Smart Weather Sensor
Recommended Accessories	
PCAB-00006	M12 Cable, 4-Conductor, Female-Male, 10m (can be daisy-chained up to 100m)
PCAB-00112	USB-to-RS485 Adapter
USIN-00030	Horizontal Boom for Watch Station Cabinet
SUPP-00027	Mounting Bracket for Horizontal boom (hardware included)
SUPP-00012	Heavy-Duty Tripod

Technical Specifications

Atmospheric Temperature	
Method	MEMS
Range	-40 to 60°C (-40 to 140°F)
Resolution	0.1°C (0.18°F)
Accuracy	±0.3°C (±0.54°F)
Atmospheric Relative Humidity	
Method	MEMS
Range	0 to 100%
Resolution	0.1%
Accuracy	±3%, from 0 to 90%
Barometric Pressure	
Method	MEMS
Range	30 to 110kPa (300 to 1100 mbar)
Resolution	0.01kPa (0.1mbar)
Accuracy	±0.05kPa, from 0 to 30°C (±0.5mbar from 32 to 86°F)
Wind Speed	
Method	Ultrasonic
Range	0 to 216km/h (0 to 134mph)
Resolution	0.036km/h (0.022mph)
Accuracy	±1.1km/h from 0 to 108km/h, ±5% from 108 to 216km/h (±0.67 mph from 0 to 67mph, ±5% from 67 to 134mph)
Wind Direction	
Method	Ultrasonic
Range	0 to 359.9°
Resolution	0.1°
Accuracy	±2°
Rainfall	
Method	Photology
Range	0 to 200mm/h
Resolution	0.2mm
Accuracy	±10%

Technical Specifications (cont.)

Communication	
Protocol	RS-485 Half-Duplex, 9.6kbps
Cable	M12, 4-Conductor, Female-Male, 10m
Environmental	
Operating Temperature	-40 ℃ to 60 ℃
Storage Temperature	-50 ℃ to 70 ℃
Certified to	IP66
Power	
Power	0.5 W
Operating Voltage	5 V
Physical	
Diameter	
Height	
Weight	
Mounting	Mounts to 48mm (1-7/8") diameter tube