



AUTOMATIC WEATHER STATION

The SysTel INDIA Model No. SI-AWS-001 Weather Station is a automated system and contained self power source system with Data Logger, battery charging, solar panel with rechargeable, maintenance free batteries, complete with sensors mounted on a tripod stand with sealed waterproof enclosure for Data Logger, Solar charger and battery. All Sensors powered from Data Logger and no need of external power source. It has facility to transport Data from Data Logger to a P.C. through a data shuttle. 16-x1 alphanumeric display and 4x2 membrane keypad is provided at front panel of data logger for programming data logger and monitoring sensor reading at site.

SPECIFICATION	
Display	16 Characters X 2 Lines LCD
Measured Parameter	Date, Time, Air Temperature, Max Air Temperature, Min Air Temperature, RH, Max RH, Min RH, Wind Speed, Wind Direction, Rainfall, Dew Point, Air Pressure.
Real Time Clock	Provided
Number of Channels	20
Data Storage	512 K EEPROM
Power Supply	12V SMF
Clock accuracy	± 5 seconds per week
Battery Charging	Through Solar Panel
3 M Tripod Tower	Provided
Radiation shield	Provided
Sensor brackets	Provided
Weatherproof enclosures	Provided
Logging Interval	User Programmable from 1 minute to 24 Hour
Operating Temperature	- 40 to 75°C
Operating Humidity	0 to 95 % non-condensing
Data retrieval	Through data shuttle to Computer

SPECIFICATIONS OF SOLAR PANEL	
Output Voltage	12 Volt DC
Wattage	10 Watt

AIR TEMPERATURE & RELATIVE HUMIDITY SENSOR	
Type	Digital Sensor
Temperature Range	- 40 to 123.8°C.
Accuracy	± 0.5°C @ 5 to 40°C.
Resolution	0.01°C Typical
RH Range	0 to 100 %
Resolution	0.5 % RH Typical
Accuracy	± 2% @ 20 to 80%
Long term stability	Typ <1%RH/ Year
Repeatability	± 0.1 %
Output	Digital (2 wire communication)

WIND SPEED SENSOR	
Sensor	3 Cup Anemometer
Sensing	Opto coupler
Input	5V DC
Range	0 to 67 m/s
Resolution	0.1 m/s
Accuracy	Better than 0.5 m/s
Current Consumption	7 M amp @ 5 V DC
Dia of Cup	50 mm
Output	Pulse output (Open Collector, Digital)
Material Used	Al, SS & Brass

WIND DIRECTION SENSOR	
Sensing	Smart Position Pot
Range	0 to 360°
Resolution	1°
Input	0 to 5 v
Output	Analog (0 to 5 v)
Accuracy	± 3°
Current Consumption	0.5 M amp @ 5 VDC
Material Used	Al & Brass

Rain Fall Sensor	
Sensor	Tipping Bucket Rain gauge
Range	100mm / hour
Resolution	0.20mm
Collector Diameter	6 Inch
Sensing	Magnet & Reed Switch
Capacity	Unlimited
Accuracy	5% @ 25mm/hr
Output	Switch closure

Air Pressure Sensor (Barometer)	
Type	Piezo-resistive Silicon membrane
Range	150 mb to 1150 mBar
Input Signal	5V DC
Output signal	0.2 to 4.8 V DC

APPLICATION SOFTWARE

This is a user-friendly, Menu Driven, Windows based weather station's software allows you to view & save collected data. Data file is saved in Microsoft™ Excel format.

SPECIFICATION OF DATA SHUTTLE (HAND HELD TERMINAL)

The data shuttle is a pocket-sized device that can be used to download & transport the data from weather station to a computer, allowing the instrument to stay in place for continuous monitoring/recording. The shuttle connects to a PC and is used with the "Application Software" to download data.

EXPENDABILITY OF SYSTEM

Following sensor in pSI can be connected to the weather station at extra cost - Albedo, Net Radiation, Water Temperature, Water Level, Water Current, Leaf Temperature, Tensiometer, GPS Module, Solar Radiation, Barometer, Evaporation, Leaf Wetness, Soil Temperature, Soil Moisture, Ultra Violet etc.

PACKAGE OF CONTENTS

- Weather Station Logger with weather proof Enclosure: **1 No.**
 - Air temperature and Relative humidity Sensor: **1 No.**
 - Rainfall Sensor: **1 No.**
 - Wind direction Sensor: **1 No.**
 - Wind speed Sensor: **1 No.**
 - Air Pressure Sensor: **1 No.**
 - Application software CD: **1 No.**
 - Complete 3 Meter Tripod Kit with all sensor mounting brackets: **1 No.**
 - Data Shuttle: **1 No.**
 - Solar Panel with Mounting Clamp: **1 No.**
 - Batteries (SMF): **2 No.**
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