



# Automatic Weather Station with Wireless Data Logger



## DESCRIPTION

Instrumex Automatic Weather Station comprises of a set of highly reliable weather sensors coupled with IPM-WMS-51 Wireless Data Logger for a comprehensive unit for monitoring of various weather parameters. It is a GSM/GPRS data logger designed to accept a range of sensor inputs and transmit the data to internet in real time, thus ensuring that the most critical weather data is made available online irrespective of the installation site. It utilizes the GSM/GPRS network to transmit the data to any remote location around the world.

The IPM-WMS-51 requires active SIM card with GPRS facility from any telecom operator. The network specific settings can be performed remotely by sending configuration messages to the device.

The device displays sensor values, configuration parameters, battery strength, network strength and other diagnostic information on the LCD to help in the installation and maintenance. The configurations are done from keypad. The device consumes lowest power among industrial data loggers used for the application. This helps remotely placed weather station to operate for days without charging, the situation most commonly found in rainy and winter seasons.

## FEATURES OF IPM-WMS-51

- ✓ RTC with backup battery
- ✓ High accuracy & reliability
- ✓ Data transmission over GPRS
- ✓ Very low power consumption
- ✓ Firmware Over The Air Upgrade
- ✓ Offline Data Storage in Micro SD Card
- ✓ Additional analog, digital and serial inputs
- ✓ Device settings performed remotely through SMS

## TECHNICAL SPECIFICATIONS

Parameter	Description
<b>Communication</b>	
Network Type	Quad Band GSM
Data rate	85.6 Kbps upload and 42.8Kbps download
<b>Indication</b>	
	LED indication for power & Network LCD for data display and settings
<b>Electrical</b>	
Voltage Input	8-12 V
Current Consumption	< 150mA (average current in operation) < 10mA (in sleep)
Internal power	Rechargeable Li-ion batteries Capacity: 4.4 Ah
<b>Environment</b>	
Operating temperature	-20 <sup>o</sup> C — +70 <sup>o</sup> C
Storage temperature	-40 <sup>o</sup> C — +80 <sup>o</sup> C
Protection	IP65
<b>Storage</b>	
Internal Flash Memory	2MB
External Flash Memory	2GB micro SD (Expandable upto 8GB)
<b>Output Type</b>	
Serial Outputs	USB-1No. (Optional)
Digital Outputs	2

## SENSOR CONFIGURATION

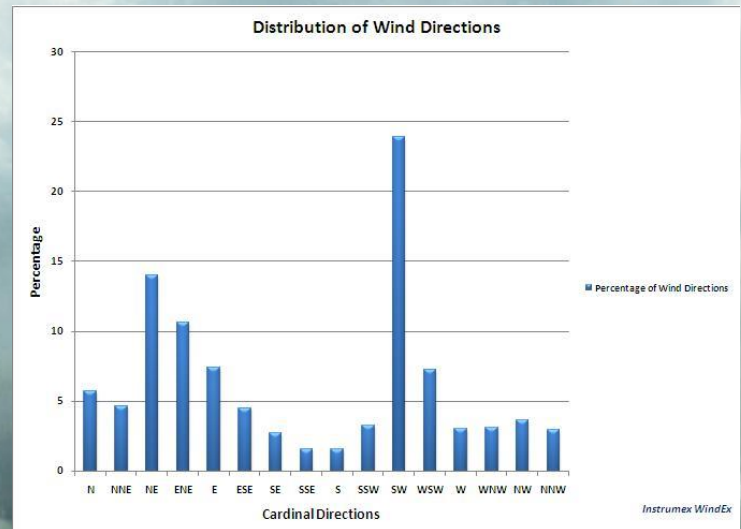
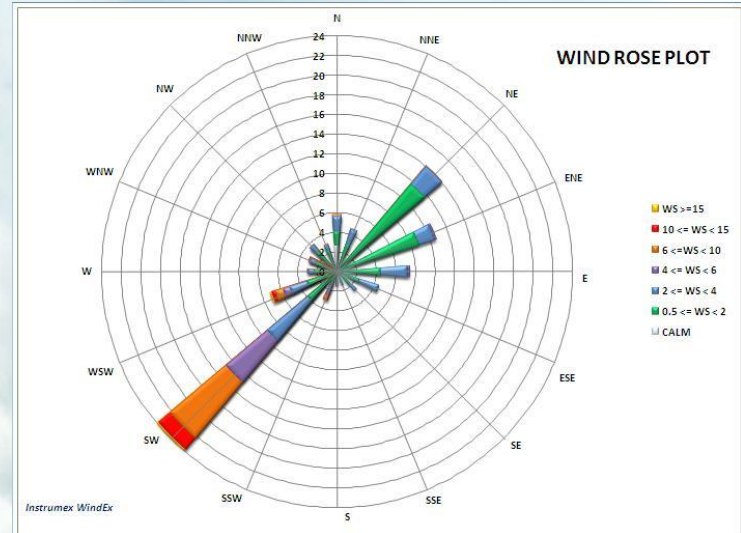
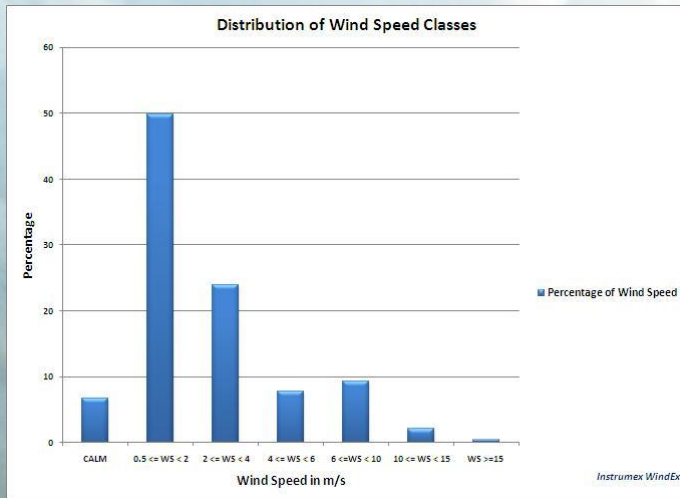
- ✓ Davis Wind Speed
- ✓ Davis Wind Direction
- ✓ Davis / Instrumex Temperature
- ✓ Davis / Instrumex Humidity
- ✓ Davis Solar Radiation
- ✓ Davis Rain Collector
- ✓ On-board Atmospheric Pressure
- ✓ PT-100 Soil Temperature
- ✓ Vegetronix Soil Moisture
- ✓ Davis / Decagon Leaf wetness

*\*Can be customized for integration with other sensors as per requirement.*

## SOFTWARE & ACCESSORIES

**Instrumex WindEx** Wind Rose & Wind Trend Plotting Software is simple Excel based Software to generate Wind Rose diagrams and Wind Trend plots from the data fetched by Instrumex Weather Monitoring Station.

A dataset fetched from the server can be used to generate colorful Wind Rose plots and corresponding Wind trends as shown in the snapshots below.



### OPTIONAL ACCESSORIES:

- ✓ MODBUS RS485 Output
- ✓ RS-232 or USB output for wired connection into PC
- ✓ 50m Extension Cable for Wired Output into PC
- ✓ Tripod Stand

Continuous product development and innovation are the policy of our company. Therefore, we reserve the right to change the specifications without prior notice.

### CONTACT US:

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