Sensing your data logging needs Sensing your data logging needs



Weather Station Specifications



EcoLog Weather Station	(see Fourier Products Section	I, for full EcoLog specifi	ications)			
Input	Sensors	Range	Sensitivity	Accuracy		
	Temperature	-10 ÷ 40°C	0.25°C	±1°C		
	Humidity	0 ÷ 100% RH	0.7%	±5%		
	Light Level	0 ÷ 5000 Lux	19Lux	20%		
	Barometric Pressure	800 ÷ 1050 mBar	1mBar	±15mB		
	Sound Level	60 ÷ 108 dB	1dB	±5dB		
	Rain Collector	0 ÷ 1000 mm	0.2mm	±0.2mm		
	Wind Speed	0 ÷ 270 km/h	1.05km/h	±1.05km/h		
	Wind Direction	0 ÷ 360 °	1.8°	±1.8°		
Output	PC-Serial port connection (RS-232)					
Sampling Rate	1 sample per second					
Display	Red light operation indicator					
Power Supply	Solar Panel + rechargeable battery or external power					
Software	WeatherLab 2.0					
RF Transmission	Frequency: 433MHz					
	Range: 300m (75m indoors)					
	Power: 10dBm					
	ETS 300 - 220 compliance					
Standard Compliance	CE, FCC					



Input	Sensors	Range	Sensitivity	Accuracy			
	Temperature	-25 ÷ 110 °C	0.25°C	±2%			
	Humidity	0 ÷ 100 % RH	0.4%	±2%			
	Barometric Pressure	800 ÷ 1150 mBar	1mBar	±15mB			
	Rain Collector	unlimited	0.2mm	±0.2mm			
	Wind Speed	0 ÷ 270 km/h	0.36km/h	±0.36km/h			
	Wind Direction	0 ÷ 360 °	0.46°	±0.46°			
Output	PC-Serial port connection (RS-232)						
Sampling Rates	From 1 sample per hour to 1 sample per second						
Sample Memory	104,000 samples	104,000 samples					
Display	2 lines x 16 characters	2 lines x 16 characters					
Power Supply	Solar Panel + rechargeable battery or external power						
Software	WeatherLab 2.0						
RF Transmission	Frequency:	433MHz					
	Range:	300m (75m indoors))				
	Power:	10dBm					
	ETS 300 - 220 compliance						
Standard Compliance	CE, FCC compliant						



MultiLog, MultiLogPRO & EcoLog

Weather Stations[™]

For clearer weather, use the best tool for weather monitoring and microclimate experimenting



schools. Deploy in minutes and let students benefit from the powerful features that make the collection and analysis of weather data easy.

The EcoLog and MultiLog weather stations are based on the award winning MultiLog and EcoLog data loggers.

- Use the professional MultiLog Station in high school, or the friendly EcoLog station in primary
 - and easy to use Windows analysis software

• A full professional station,

· Modular stations based on

or EcoLog data loggers · Weather Lab, a powerful

the MultiLog, MultiLogPRO

including 8 sensors

- · Wireless data transmission for up to 300 meters
- Stand alone, solar powered station
- · Carrying case for field installation, setup in minutes
- Automatic data link to websites



MultiLog, MultiLogPRO & EcoLog

Weather Stations[™]

At the heart of the Fourier modular stations are MultiLog, MultiLogPRO or EcoLog data loggers, which allow you to create different configurations to match specific areas of interest:

- For a weather monitoring station, take temperature, humidity, rain, wind and barometric pressure sensors
- For a water quality station, take pH, turbidity, dissolved oxygen sensors
- For a pollution testing station take CO₂, oxygen, and pressure

Quick Installation

Using the waterproof carrying case, users can easily move and deploy the station in different locations. Kids can learn about the changes in weather in a garden, on a school roof or in the heart of the city.



EcoLog Weather Station



This station is specifically designed to be used in primary schools. The heart of the station is the award winning EcoLog data logger. The EcoLog is equipped with five built-in sensors including temperature, relative humidity, barometric pressure, sound level and

light level. In addition, the EcoLog, through its external inputs samples wind speed, wind direction and Rainfall. The station based on this small logger is compact, quick to install and very easy to handle in its waterproof carrying case. Station mobility enables users to investigate interesting phenomena of microclimates, near walls, in the city or in the garden. The station is equipped with data radio transmission to the computer, avoiding wiring between the PC and the station. The station analysis software, WeatherLab, is a graphic, friendly software describing the weather parameters via vivid icons, meters and graphs.

MultiLog & MultiLogPRO Weather Station



This station structure is very similar to the EcoLog Weather Station, but instead of using the EcoLog the station is based on the MultiLog professional data logger. The MultiLog has 100,000 memory cells and is able to perform long term logging of weather data. It's 10 bit

analog to digital converter and high accuracy make it the best choice for the station-measuring device. Station data is analyzed with the WeatherLab software.

The MultiLog & MultiLogPRO

A powerful data logger, especially designed for education. With over 20,000 units sold world wide, the MultiLog has proven to be the best and easiest to use data collection system. The Weather Station uses the MultiLog due to its high accuracy, 100,000 samples memory and large variety of sensors.

he EcoLog

• Hand held, battery operated data logger. The EcoLog includes five built-in sensors. It is a standalone product. Users may use it for additional scientific experimenting. In 1998, the EcoLog received the WORLDDIDAC award for the best product in computerbased training.

Solar power

- No need for batteries or school electricity. The station is powered by the sun. During daylight the sun supplies the stations energy and also charges the station battery, which keeps the station working at night, or on cloudy days.
 Offering up to eight sensors!
- 8 Rainfall
- Wind Direction
- Wind Speed
- Temperature Relative Humidity Light Level (EcoLog) Sound Level (EcoLog)
- Barometric Air Pressure

Wireless communication

4 A small data transmitter sends the station online measurements to a receiver connected to the PC serial port. This license free communication band allows users to receive weather data within 300 meters from the station. A station located on the roof or in the school yard can transmit to a class or the school cafeteria. One station can work with more than one PC.



WeatherLab[™] 2.0

Data solecting

for MultiLog, MultiLogPRO and EcoLog Weather Stations View online data, perform analysis functions and produce weather reports

Operating System: Windows 95/98/ 2000/ME/XP/NT

Analyzing the data with the WeatherLab software enables the user to produce weather reports, view on-line data, compare results with earlier data, perform functions like average, minimum, maximum and export data to spread sheets (e.g. Excel). The software can automatically send daily reports to websites. This allows users to easily configure different types of stations by selecting different sensors. For example: For weather - temperature, humidity, wind speed and direction, rainfall, air pressure and for water quality - pH, temperature, dissolved oxygen, turbidity.

temperature, humidity, wind speed and direction, rainfall, air pressure and for water quality - pH, temperature, dissolved oxygen, turbidity. Weather Lab Online Screen

WeatherLab 2.0 Features

Online Screen

Online live weather data monitoring with eight simultaneous graph and meter displays - for example:

- Temperature
- Humidity
- Barometer Pressure
- Rainfall
- Wind Speed
- Wind Direction

Or any other sets of sensors

- Option to define and display other vendor sensors
- Daily monthly, yearly rain bars
- Wind direction represented by compass rose, frequency or vector graphs
- Daily minimum and maximum temperature readings
- Dew point calculations

Off-line Screen

- Archive station data reports: calculating totals and averages
- Data viewing in single or multiple graph and table modes
- Analyze weather trends
- Data display tools: zoom, marker, and pan
- Print or export data to Excel
- Automatic daily reports sent to website



