INNOVATIVE MONITORING SOLUTIONS

The MicroLog solution offers two low-cost portable data logging systems to meet a broad spectrum of data monitoring needs.

External sensor input

Analysis software

- Accurate, portable MicroLog and MicroLogPRO II data loggers
- Feature-rich software for data monitoring, analysis and logger calibration
- Measuring up to 4 parameters: Temp, RH and Dew Point plus external sensors
- External sensors include: Temperature, pH, 0 to 20 mA and 0 to 10 V
- 0 to 20 mA and 0 to 10 V inputs connecting with industry standard sensors
- Unique Boomerang* feature that automatically creates and emails PDF data report when logger is connected to PC
- Low consumption, 2-year battery life, ideal for long-haul monitoring
- Multi-function keypad supporting manual time stamp and Push to Run modes
- View up to 30 days Min/Max data history on LCD screen
- Water and dust proof (IP65/NEMA 4)
- Records months of data - up to 52,000 samples
- Built-in LED for logging and alarm indication

*Patent Pending (US SN: 13/433,432)

MicroLog Solution
GENERAL DATA LOGGER

www.fourtec.com

PHARMACEUTICAL
Monitoring environments in labs, fridges, freezers and culture rooms

WAREHOUSING
Chemical, industrial and perishables storage

COLD STORAGE
Optimizing temperature in refrigerated warehousing

HOSPITALS
Medical alert monitoring, sterilization, blood products storage and transport

COLD CHAIN
Ensuring quality products throughout the cold chain process

MicroLog compact data logger

A compact data logger capable of recording data for months, even long-term shipping and storage. All data viewing, data export, and printing is done via two function keys.

- EC600 with internal temperature sensor
- External input enables additional data collection from a variety of external sensors
- View up to 30 days min/max history
- Programmable sampling rate
- Records months of data - up to 16,000 samples
- Low and high alarm level programming
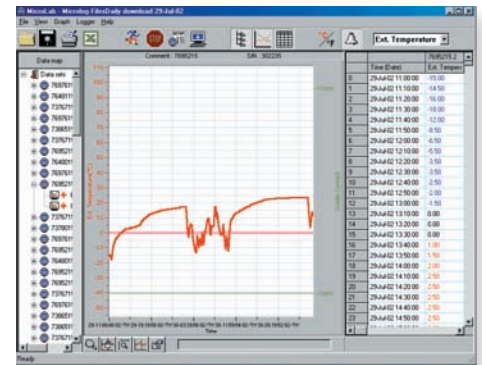
MicroLab Software for MicroLog

Supported Operating Systems:
Windows® XP and higher

Minimum Hardware Requirements:
Pentium 300 MHz or higher
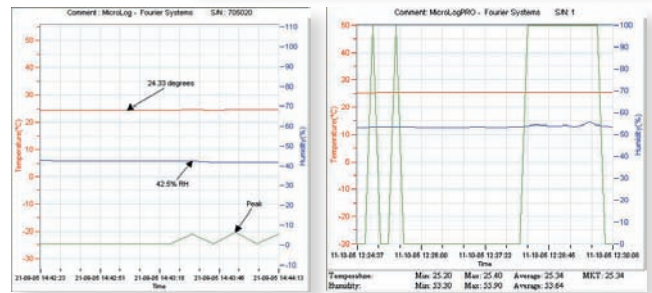6 MB available disk space

Data Management

Data can be clearly identified according to the Serial Number of the logger the data was downloaded from. The alarm threshold relevant to that logger is also displayed in the main Graph view. MicroLab automatically saves the data and produces daily status reports of your environment.

Data Analysis

FO Pasteurization, histogram, MKT, statistics with export to Excel and CSV formats.

Annotation feature enables text marks to be placed on the graph at relevant points where certain information needs to be highlighted.

External Sensors for MicroLog and MicroLogPRO II

Sensor Model	NTC Temperature sensor with 100 mm probe DT132N (needle probe, 2.5 m cable length) DT093 (8 m cable length)	Voltage Adapter DT140 (for EC600) DT140-ML2 (for EC8XX)	Current Adapter DT139	pH adapter and Electrode DT168 (for EC600 only)
Range	EC600: -50 to 100 °C EC8XX: -50 to 110 °C	0 to 10 V	0 to 20 мA	1 to 14 pH
Accuracy	EC600 2 % of reading EC8XX: ±0.3 ˚C	EC600: ±3 % EC8XX: ±5 mV	EC600: 1% from reading EC8XX: ±20 µA	5% of reading
Resolution	EC600: <1 °C EC8XX: 0.03 °C	EC600: 50 mV EC8XX: 1 mV (display), 4 mV (software)	EC600: 0.01 mA EC8XX: 1 µA (display), 4 µA (software)	0.116 pH

MicroLogPRO II Compact Data Logger

The next generation MicroLogPRO II carries all the benefits of the MicroLog plus some unique enhancements:

- Modified sensor location for improved reliability and stabilization time
- Higher sampling resolution and rates for more accurate readings
- Increased memory to 52,000 samples
- Enhanced 4 digit LCD
- Default mini-USB port for PC communication and firmware updates
- Built-in LED for logging and alarm indication
- Manual time stamp on logger memory while sampling
- New multi-platform software - with comprehensive analysis and alarm notification capabilities

DataSuite Software for MicroLogPRO II

The DataSuite software provides security for your products with online monitoring and control of the entire application environment.

Supported Operating Systems:
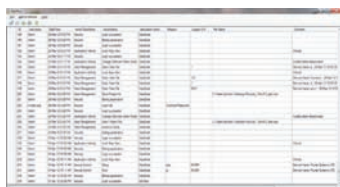Windows® XP SP3 / Vista / 7
(32 and 64 Bit)

Minimum Hardware Requirements:
Pentium 4, 2 GHz Processor or better,
512 MB RAM, 250 MB available disk space
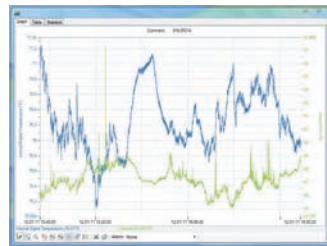
FDA Title 21 CFR Part 11 Compliant

DatPass

DatPass is a user administration software which supports the assignment of passwords and operating privileges for all fourtec industry application software ensuring CFR compliancy. CFR is a Food and Drug Administration (FDA) issued regulation (Title 21 Code of Federal Regulations, Part 11).
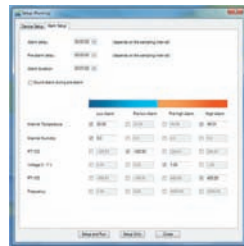
DatPass Audit Trail

Data View Features
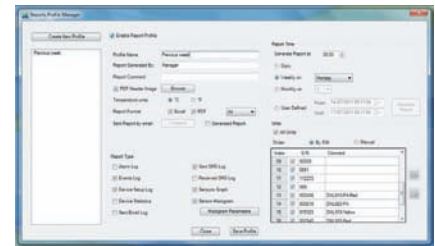Real-time data in multiple displays (Graph, Table, Statistics)

Alarm Features
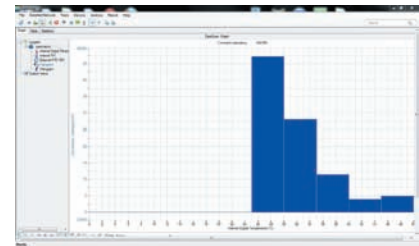Multi-alarm level setup with email and SMS notifications

Report Module
Report module provides an intuitive interface for generating comprehensive data reports with automatic email distribution in PDF and Excel.

Analysis Features
Dew point analysis, FO Pasteurization, histogram, MKT, statistics with export to Excel and CSV formats

MicroLog & MicroLogPRO II Operating Method

1
Record data

2
Connect to PC via RS232 cable or USB cable

3
Display data in graphical or tabular formats in the MicroLab or DataSuite analysis software

MicroLog Hardware Specifications Comparison Table

	MicroLog	MicroLogPRO II	
	EC600	EC800	EC850
Measurement Inputs	Two (one internal, one external)	Two (one internal, one external)	Three (two internal, one external)
Internal Sensor Range	Temp: -30 to 50 ℃ RH: 10 to 90%	-40 to 80 ℃	Temp: -40 to 80 ℃ RH: 5 to 95%
Internal Temperature Accuracy	± 0.6 ℃	0 to 60 ˚C: ±0.3 ˚C After calibration: -40 to 0 ˚C: ±0.3 ˚C 60 to 80 ˚C: ±0.3 ˚C	± 0.3 ℃
Internal Temperature Resolution	0.5 ℃ (-30 to -29 ℃ and 33 to 39 ℃) 0.4 ℃ (-28 to -22 ℃ and 23 to 32 ℃) 0.3 ℃ (-21 to 22 ℃)	0.02 ℃ or better	0.015 ℃
Internal Humidity Accuracy	N/A	N/A	± 2 %
Internal Humidity Resolution	N/A	N/A	0.05 %
External Input Support	NTC Temperature -50 to 100 ℃, 0-20 mA, 0-10 V, pH 1-14	NTC Temperature -50 to 110 ℃, 0-20 mA, 0-10 V	
Sample Memory	16,000 (over 3 channels)	52,000 samples (over 3 channels)	
Sampling Rate	Minimum: Once every 10 seconds Maximum: Once every 2 hours	Minimum: Once every second Maximum: Once every 18 hours	
Auto PDF & Email Delivery (Boomerang Feature)	X	√	
LCD	Two-digit, 7-segment LCD	Four-digit, 7-segment LCD with decimal point	
Dew Point	None	LCD and software indication	
LED	None	LCD and software indication	
PC Interface	RS-232	Mini USB	
Infrared Printout	Minimum, maximum and duration up to 30 days Wireless report to portable thermal printer HP82240B	None	
Power Supply	1/2 AA 3.6V lithium battery	2/3 AA 3.6V lithium battery	
Battery Life	~ 1.5 years depending on sampling rate and operating conditions	~ 2 years depending on sampling rate and operating conditions	
Dimensions	Diameter: 72 mm , Thickness: 22.9 mm		
Weight	55 g		
Wall Mount	None	Cradle accessory	
Standards Compliance	CE, IP65, EN12830	CE, IP65, EN12830	CE, IP54, EN12830

About fourtec

fourtec – Fourier Technologies is a recognized leader in data-logging and monitoring solutions for controlled industrial environments, such as food, pharmaceutical, medical, storage and transportation industries.

Our solutions enable our customers to deliver higher quality products, ensure consumer safety, comply with regulatory requirements and increase profitability. Innovation, expertise and a commitment to quality are the values that drive the development and production of our products.

fourtec – Fourier Technologies is an associate member of GCCA (Global Cold Chain Alliance). A proven specialist in cold chain management systems, we deliver end-to-end solutions that accompany products from the processing floor to the end user.

fourtec – Fourier Technologies operates in over 60 countries, through an established network of selected resellers. fourtec's trusted data acquisition solutions have been implemented globally by many mission critical organisations including NASA, Coca Cola, Qantas, Colgate and TEVA.

fourtec – Fourier Technologies is a spinoff company based on the industrial division of Fourier Systems, a world leader in data logging, data acquisition and monitoring, with more than 20 years of experience in serving this market.

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