![fourtec logo] **fourtec**
FOURIER TECHNOLOGIES

More than a decade of customer satisfaction and application reliability for process and manufacturing industries

# 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

# MicroLog Solution
## GENERAL DATA LOGGER

**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

- Accurate, portable MicroLog and MicroLogPRO II data loggers

- Powerful monitoring and data analysis software

- Measuring up to 4 parameters: Temp, RH and Dew Point plus external sensors

- External sensors include: Temperature, pH, 4-20 mA, 0-10 V and more

- 4 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

# 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.

- Two MicroLog models available: EC600 (Temp) and EC650 (Temp/RH)
- External input enables additional data collection from a variety of external sensors
- View up to 30 days min/max history
- Built-in quality sensors for temperature and humidity
- Programmable sampling rate
- Records months of data - up to 16,000 samples
- Low and high alarm level programming

# MicroLog Software - MicroLab

**Supported Operating Systems:**
Windows® 95 and higher

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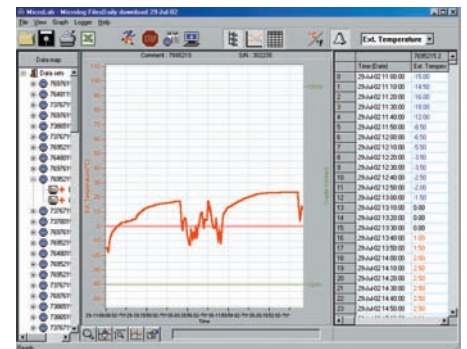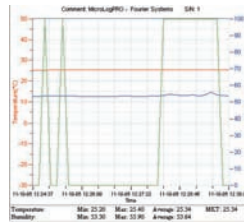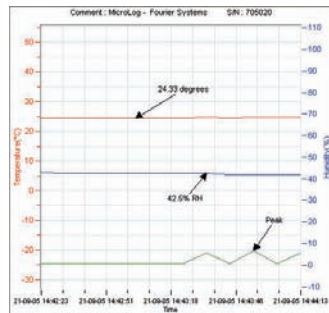Pentium 300 MHz or higher
32 MB RAM
6 MB available disk space

## 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

Dew point 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.

## MicroLog & MicroLogPRO II External Sensors

**DT277 PT-100 Adapter**

MicroLogPRO II
Range: -200 to 400 °C

**DT132 Temperature (2.5m); DT093 (8m)**

MicroLog Range: -50 to 100 °C

MicroLogPRO II Range: -50 to 110 °C

MicroLog Resolution: <1 °C

MicroLogPRO II Resolution: <0.3 °C

**DT168 pH Adapter & Electrode**

Range: 1 to 14 pH

MicroLog Resolution: 0.116 pH

MicroLogPRO II Resolution: 0.02 pH

**DT140 Voltage Adaptor**

Range: 0 to 10 V

MicroLog Resolution: 0.05 V

MicroLogPRO II Resolution: 0.01 V

**DT139 Current Adapter**

Range: 4 to 20 mA

Resolution: ±0.1 mA

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**MicroLog Solution**

GENERAL DATA LOGGER

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# MicroLogPRO II Compact Data Logger

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

- Two MicroLogPRO II models available: EC800 (Temp) and EC850 (Temp/RH)
- Modified sensor location for improved air flow and stabilization time
- Higher sampling resolution and rates for more accurate readings
- Increased memory - 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

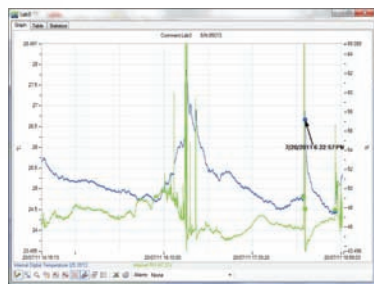# DataSuite Software for MicroLogPRO II

## 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

For MicroLab & DataSuite
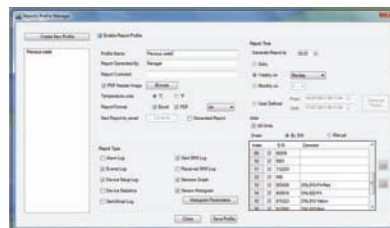
**DatPass Audit Trail**

### Data View Features

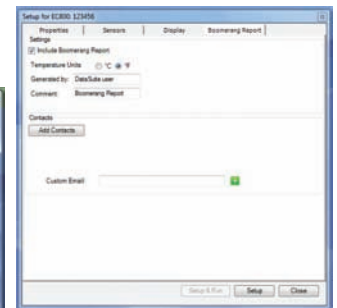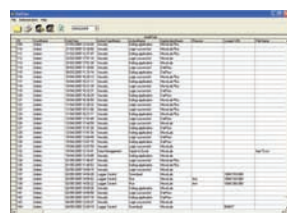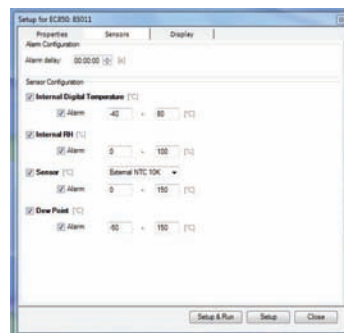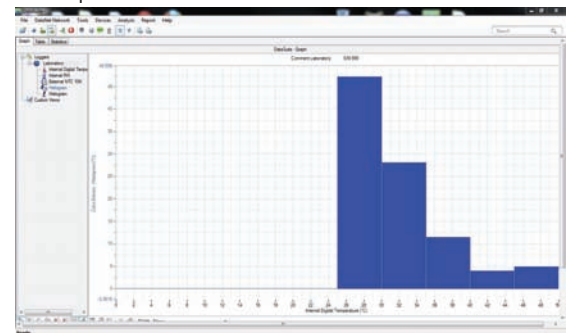Real-time data in multiple displays (Graph, Table, Statistics)

### Report Module

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

### Boomerang Feature

Configure logger setup to automatically create and email PDF data report when connected to computer via USB.

### Alarm Features

Multi-alarm level setup with email and SMS notifications

### Analysis Features

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

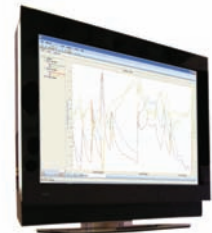## MicroLog & MicroLogPRO II Operating Method

**1** Record data

**2** Connect to PC via RS232 cable or USB cable

**3** Display data graphically in the MicroLab or on the DataSuite unified platform analysis software

# COMPARISON SPECIFICATIONS TABLE

| | MicroLog | | MicroLogPRO II | |
|---|---|---|---|---|
| | EC600 | EC650 | EC800 | EC850 |
| Internal sensor range | Temp: -30 to 50 °C | Temp: -30 to 50 °C RH: 10 to 90% | Temp: -40 to 80 °C | Temp: -40 to 80 °C RH: 5 to 95% |
| Temperature accuracy | ± 0.6 °C | | ± 0.2 °C | |
| Humidity accuracy | N/A | ± 3% | N/A | ± 2% |
| Temperature Resolution | 0.5 °C (-30 to -29 °C and 33 to 39 °C) 0.4 °C (-28 to -22 °C and 23 to 32 °C) 0.3 °C (-21 to 22 °C) | | 0.1 °C | |
| Humidity Resolution | N/A | 0.5 % | N/A | 0.1% |
| Ext. Sensor Support | Temperature, 4 to 20 mA, 0 to 10 V, pH | | | |
| Memory capacity | 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 | | V | |
| LCD display | Two digit, 7-segment LCD | | Four digit, 7-segment LCD with decimal point | |
| Dew Point | N/A | | LCD and Software indication | |
| LED | N/A | | Bi color Alarm | |
| PC Connection | RS-232 | | Mini USB | |
| Infrared printout | Minimum, maximum and duration up to 30 days Wireless report to portable thermal printer HP82240B | | N/A | |
| 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 | | ~ 2 years depending on sampling rate | |
| Dimensions | Diameter: 72 mm Thickness: 22.9 mm | | | |
| Weight | 55 g | | | |
| Wall Mount | None | | Cradle accessory | |
| Standards Compliance | CE, IP65 | CE, IP54 | CE, IP65 | CE, IP54 |

**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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