



**INNOVATIVE
MONITORING
SOLUTIONS**



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

MicroLite Solution

THE PLUG & RECORD MINI DATA LOGGER

www.fourtec.com

Combining innovation with simplicity, the high accuracy MicroLite USB data logger is a vital tool for monitoring and recording a variety of data. Available in 6 models, offering a unique plug and record data logger for every application and helping organizations maintain the highest standards throughout the cold chain. Real-time sensor readings with corresponding time stamp are clearly displayed on the logger's LCD screen, incorporating alarm thresholds. The logger is designed for low power consumption to extend battery life and reduce the time between battery replacements.



The product is designed for ultimate application accessibility, whether mobile or static. Typical applications for this product include transportation as well as warehousing of food, drugs and hi-tech equipment.

Features

- High functionality low cost multi-trip logger
- Real-time, accurate historical data indicator for an unbroken cold chain
- USB 2.0 interface enabling fast track communication
- Rapid data download to Graph, Table view and Excel spreadsheet
- Built-in LCD with decimal point readings and LED alarm indicator
- High accuracy sensors with 16-bit resolution
- 2-year battery life, using Nano Watt technology
- Fast once per second sampling rate
- 16,000 sample memory accommodating long-haul transports
- Easy firmware update via USB
- Reed switch using magnet key to mark time stamps, activate and stop logging
- Built-in real-time clock and calendar
- Dust and water proof
- Cradle wall mounting for fixed monitoring



ESIS
Industrial Electronics

www.esis.com.au
Ph 02 9481 7420
Fax 02 9481 7267
esis.enq@esis.com.au

MicroLite compact cost-effective data logging

fourtec has expanded the proven MicroLite product line with the release of the MicroLite II, next generation portable USB data logger. Delivering ultimate application accessibility, the MicroLite II is an ideal solution for a variety of industrial cold chain logistics, requiring a small form factor USB data logger.

The comprehensive MicroLite range allows organizations to select the unit most appropriate for their mission-critical environment:

Internal Temperature



Internal Temperature & Humidity



External 4 to 20 mA input



External 0 to 10 V input



External Temperature NTC -50 to 150 °C probe



Industrial screw-to-wire interface located inside logger cap allows direct data transfer from external sensors to the logger's memory

MicroLite operating method

1. Record data using internal or external sensors

2. USB connection to PC

3. DataSuite unified platform graphical data display



MicroLite Case Study



Company:

Established in 1983, ships highly perishable frozen seafood samples to brokers and customers across the United States.

Challenge:

Using correct quantities of frozen gel packs during shipments. Too few would result in product spoilage, and too many causing excessive air freight charges.

Requirements:

- A water resistant logger that is compact, accurate, low cost and easy-to-use.
- Data analysis software that could provide detailed analysis of the shipment from origin to destination, allowing the company to optimize its shipping process.

Solution:

MicroLite: Accurate and reliable temperatures monitoring during shipping

Result:

Substantial cost savings in air freight, refrigerant packs, and minimized product loss.

Method:

- MicroLite placed inside insulated shipping boxes with a postage-paid return envelope to the company after shipment delivery.
- The logger is programmed to start when the courier arrives to pick up the package.
- Samples are recorded at 1 minute intervals during the overnight shipment.
- Once the logger is returned to the company, data is downloaded for analysis.

DataSuite Software for MicroLite



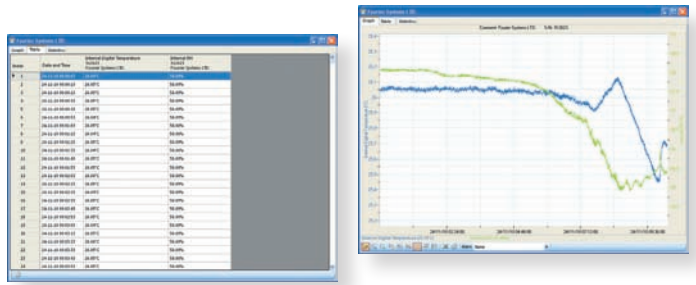
Supported Operating Systems:
Windows® XP SP3 / Vista / 7 (32 and 64 Bit)

Minimum Hardware Requirements:
Pentium 4, 2 GHz Processor or better, 512 MB RAM, 250 MB available disk space

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

Data View Features

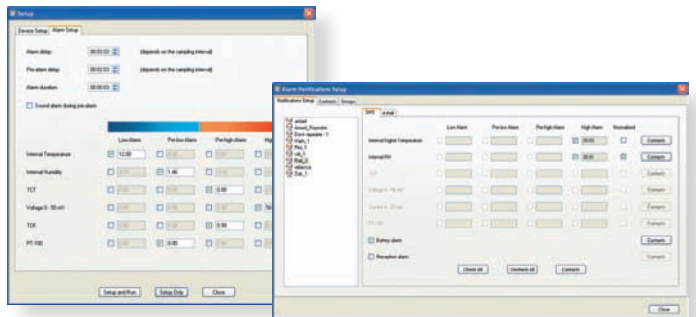
Real-time online data in multiple displays (Graph, Table, Statistics)



Alarm Features

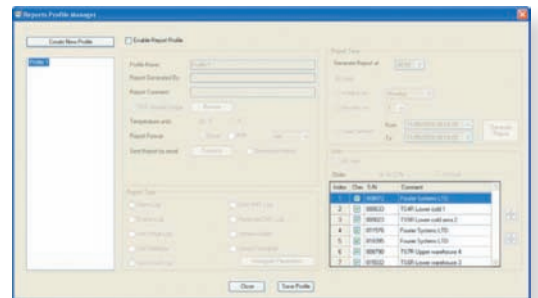
Alarm level setup with email & SMS notifications

Two alarm levels, allowing for programming of separate parameters, including alarm delay and duration



Report Module

The Report module provides the MicroLite user with an intuitive interface for creating and generating reports which have many parameters garnered from the MicroLite units and software. Each report can be emailed to a selected distribution list, at pre-defined time intervals, in PDF and Excel format.

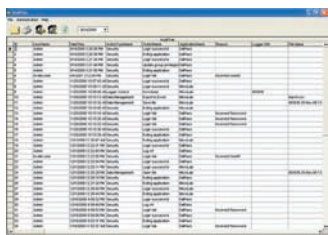


FDA Title 21 CFR Part 11 Compliant



DatPass

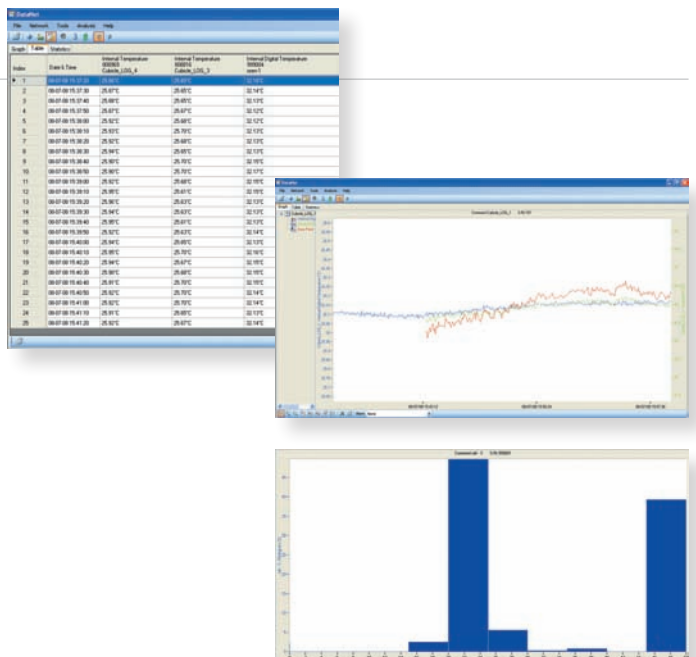
DatPass works with DataSuite software and defines the users that can log in, maintaining the passwords and digital signatures needed for electronic records, as well as an Audit Trail of all user activity.



DatPass Audit Trail

Analysis Features

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



MicroLite Solution Specifications

Specification	LITE5016 & LITE5008 Internal Temp	LITE5016P & LITE5008P Internal Temp	LITE5016P-RH Internal Temp/RH	LITE5016P-4/20 4 to 20 mA	LITE5016P-V 0 to 10 V	LITE5016P-EXT External NTC
Range	Temp: -40 to 80 °C	Temp: -40 to 80 °C	Temp: -40 to 80 °C RH: 5 to 95 %	4-20 mA	0-10 V	-50 to 150 °C
Accuracy	Temp: 0.3 °C	Temp: 0.3 °C	Temp: 0.3 °C RH: ±2 %	±380 pA	±0.5 %	-50 to 60 °C ±0.3 °C 60 to 150 °C ±0.5 %
Resolution (16-bit)	0.1 °C (display) 0.06 °C (software)	0.1 °C (display) 0.06 °C (software)	Temp: 0.1 °C (display) 0.06 °C (software) RH: 0.5%	1.16 uA	200 µV	0.1 °C (display) 0.06 °C (software)
Maximum Load	N/A	N/A	N/A	25 mA, 3 V	12 V	N/A
Dew Point	N/A	N/A	√	N/A	N/A	N/A
LED Alarm Indicator	X	√	√	√	√	√
USB 2.0	√	√	√	√	√	√
Sample Memory	8,000 and 16,000	8,000 and 16,000	16,000 (8K per channel)	16,000	16,000	16,000
Sampling Rate	Once per second / once every 2 hours	Once per second / once every 18 hours				
Battery Type / Battery Life	CR2032 3V 1.5 years, depending on sampling rate	CR2032 3V 2 years, depending on sampling rate				
Operating Environment	-40 to 80 °C					
Dimensions (with cap)	11 x 3.9 x 2.6 cm		11 x 3.9 x 3 cm	14 x 3.9 x 2.6 cm		
Weight	45.5 g					
Standard Compliance	CE, EN12830, IP68		CE, EN12830, IP54			
Wall Mount	X	Logger cradle accessory provided				

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 annual production of more than 400,000 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.



www.fourtec.com

© 2011 fourtec - Fourier Technologies Ltd. All rights reserved. fourtec - Fourier Technologies Ltd. logos and all other fourtec product or service names are registered trademarks or trademarks of fourtec - Fourier Technologies Ltd. All other registered trademarks or trademarks belong to their respective companies. P/N BK191, Rev 3.11

