



# ISE, Inc.

# MicroLog™ Plus

A wireless data logging system for remote monitoring of up to 200 data loggers

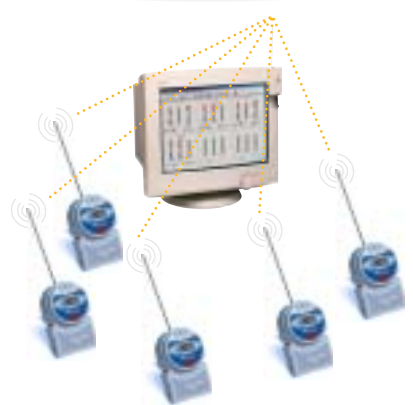


The MicroLog™ Plus is a unique system based on the MicroLog – a mini temperature and humidity data logger. The MicroLog Plus allows users to communicate with up to 200 MicroLogs and receive all real-time measurements on one computer. The MicroLog Plus incorporates wireless communication between the loggers and the computer.

- Features**
- Capable of receiving data from loggers located up to 300m away from the computer
  - License free wireless communication
  - Handles data from up to 200 loggers
  - Very easy, color coded, user interface reporting each logger status
  - Programmable threshold for each logger that will activate an alarm indication when crossed.
  - Cost effective solution for multiple data logging

**Microlog Plus is the ideal solution for multiple data logging applications in:**

- Supermarkets
- Food transportation
- Storage
- Air conditioning and ventilation
- Clean room
- Warehouses
- Art galleries



When pre-defined thresholds are crossed MicroLab sends an email or SMS alarm message automatically with the unit details.

Keep an eye on the temperature level of your entire stock from a single computer station



Monitoring environmental conditions in large warehouses, supermarkets and production plants is a must, yet it involves the recording of temperature and humidity in many locations.

The MicroLog Plus is the best solution for collecting and handling all this data.

MicroLog Plus integrates:

- **The MicroLog Logger** - containing built-in sensors for temperature and humidity and an analog port compatible with almost any kind of external sensor
- **The MicroLog Cradle** - a mount for the Logger which is also a wireless (RF) transmitter that transmits readings at user-set intervals to a remote PC monitoring station for observation and data storage
- **The MicroLog Receiver** - a small RF receiver that connects to the monitoring station computer
- **MicroLog Plus Management Control Software** - lets you control and monitor up to 200 MicroLog Logger devices from a remotely located computer.

Each cradle is tagged with an ID number. Cradles transmit data in different time slots according to their ID in order to prevent data collision between two or more cradles. The cradle memory can be automatically, or manually downloaded every day.

The MicroLog Plus receiver picks up all transmissions and transfers them to the MicroLog Plus software. With a very friendly color code interface the software reports the status of up to 200 MicroLogs in one screen. The software also stores the data of each MicroLog, sets the MicroLog alarm level, its sampling interval and all other necessary parameters.

**Just think how much time that you are wasting daily having to download each of the data loggers scattered in the warehouse or in the production plant. Using the MicroLog Plus all data will arrive directly to your computer and in real time!**

### MicroLog

- Models**
- EC600 temperature and external sensor data logger
  - EC650 temperature, relative humidity and external sensor data logger

- Inputs (Two built-in sensors)**
- Temperature -30°C – 50°C  
(resolution 0.5°C, accuracy ±0.6°C)
- Relative Humidity 0 – 90 %  
(resolution 0.5%, accuracy ±3%)

- External Sensors**
- Voltage 0 – 10 V  
Current 0 – 20 mA  
Temperature -50 – 100 °C  
PT100 Temperature -10 – 120 °C  
-100 – 120 °C  
pH 0 – 14 pH  
Contact Open/Closed

- Outputs**
- Three digit 7 segment LCD
  - IRDA interface to HP-printer and host computer
  - RS232 serial communication at 19,200 bps

**Memory Capacity** 16,000 recording samples

- Power Supply**
- Internal Battery Lithium - 3.6V 1.2AH 1/2AA  
Battery Life Approximately two years, replaceable (May vary when connecting external sensor)

- Sampling Rate**
- User Defined From every 10 second to every 2 hours

- Dimensions**
- Round 72mm diameter  
Thickness 22.9mm  
Weight 55gr

CE and FCC standard compliance

### North America RF Transmission

- EMC conformant to EN 301 489-3, FCC PART 15.249
- Usable range to 120m (30m indoors)
- 1mW at 914.5MHz
- Harmonics/spurious emissions -55dBc
- 8cm length antenna

CE and FCC standard compliance

### MicroLog Plus Receiver

#### European Version

- Usable range to 300m (75m indoors)
- One RS232 communication port to the computer

#### Power Supply

- Internal Lithium battery 3.6V, 1.2AH, 1/2AA  
External AC/DC 6V adapter

#### RF Receiver

- Red LED indicating RF signal
- Green LED indicating valid data being received
- Type approved to ETS 300-220

CE and FCC standard compliance

#### North America Version

- Usable range to 120m (30m indoors)
- RS232 communication port to the PC

#### Power Supply

- Internal Lithium battery 3.6V, 1.2AH, 1/2AA  
External AC/DC 6V adapter

#### RF Receiver

- Red LED indicating Ext power connected
- Green LED indicating valid data being received

CE and FCC standard compliance

### MicroLog Cradle

- Cradle Alarms**
- Audible Alarm
  - Visual Alarm Led

- Serial Communication Channels**
- RS232 at 19.2Kbps
  - USB at 1.5Mbps

- Cradle Memory** 2000 samples holding the sensor samples

- Connectors**
- 4-pin flat connection to the MicroLog
  - 4-pin flat connection to any MicroLog external sensor
  - Screw terminal for External DC supply
  - Screw Terminal Board connections:
    - Power supply: DC 6-30 V
    - External sensor
    - External contact sensor
    - High alarm open collector 30V/2A
    - Low alarm relay open collector 30V/2A

- Power Supply**
- Internal Lithium battery, 3.6V  
External 6 – 30 V, minimum 300mA

#### European RF Transmission

- EMC conformant to EN 301 489-3
- Type approved to ETS 300-220
- Usable range to 300m (75m indoors)
- 418 (UK) & 433.92MHz
- 1mW on 418MHz, 10mW on 433.92MHz
- 2nd harmonic < -60dBc
- 16cm length antenna

### MicroLab Plus Software

#### Data Displaying (from up to 200 MicroLogs)

- Real-time temperature and humidity readings
- Visual alarm when the logger crosses an upper or lower alarm threshold for temperature or humidity
- Battery level
- An Excel file containing all of the measured data received from the device
- email/SMS messaging

#### Setting up the MicroLog

- The ID of each of the monitors
- The alarm levels of each monitor
- Comment
- The sampling rate from every minute to every hour

#### Minimum PC requirements

- Windows 95/98/2000/XP/NT
- 6MB available disk space
- CD ROM drive for software installation
- Available communication port

### Ordering Information

Part No.	Description
EC600	Temperature data logger
EC650	Temperature and relative humidity data logger
DT132	External temperature sensor
DT252	External PT100 temperature sensor -10 – 10 °C
DT253	External PT100 temperature sensor -100 – 120 °C
DT140	External 0 – 10 V adapter
DT139	External 0 – 20 mA adapter
DT141	External contact sensor
DT175	Transmitter and alarm cradle
DT152	MicroLog Plus receiver
SFTMCL007	MicroLab Plus software
SFTMCL012	MicroLog Delux
DT047	Serial communication cable
DT180	USB communication cable
DT242	220/6V AC/DC receiver adapter
DT243	110/6V AC/DC receiver adapter
DT245	220/6V AC/DC transmitter adapter
DT246	110/6V AC/DC transmitter adapter
DT086	3.6V Lithium battery
10940	External antennae

To order: [www.MicroLogPlus.com](http://www.MicroLogPlus.com)