The GenII MS "Mini Squirrel" is a new series of compact stand-alone data loggers.

The first release of the GenII MS "Mini Squirrel" series is intended for RH, temperature and CO_2 applications. The dataloggers are of rugged construction, battery operated and ideal for short or long term environmental monitoring.

Mini Squirrel is ideal for monitoring smaller spaces such as galleries or laboratories. A feature of the Mini Squirrel is ease of deployment and data download. A top panel mounting jack socket is provided for data download.

The scrolling LCD display provides real time sensor values and screen prompts inform the user that the logger is set up and ready to go as required.
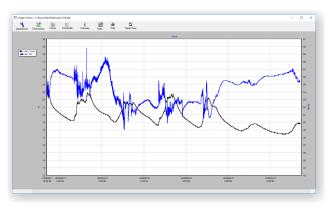
Eltek's Darca Lite Windows software is designed for use with the MS Mini Squirrel, enabling the user to configure, download data, and graph historic data quickly and easily.

MS Mini Squirrel loggers

MS13E / MS14E	MS47AC / MS47B	MS10

MS13E and RHT10E high spec RH and temperature probe can be placed precisely where needed. MS14E additionally provides two temperature (thermistor) inputs.

Specification
RH: 0-100%
Temp: -30°C to 65°C
Temp (MS14E only):   -40°C to 70°C

N.B. the connected Eltek probe thermistor accuracy is: ±0.1°C (0°C to 70°C)
Battery pack: 4 x AA non rechargeable
Long battery life - typically several years at 5 minute log/transmit interval.

Indoor, AC mains or battery operated air quality transmitter with built–in CO_2 0-5000ppm NDIR technology, RH and temperature sensors.

Specification
RH: 0-100%
Temp: -30°C to 65°C
CO_2:   0-5000ppm
MS47B Battery options, non rechargeable 6 x AA pack for > 4 months operation Li-ion for > 6 months operation
MS47AC AC mains operated with 100 hour built in back up battery

Perfect for environmental monitoring. With built in RH and temperature sensors, easy and low cost.

Specification
RH: 0-100%
Temp: -30°C to 65°C
Battery pack: 4 x AA non rechargeable
Long battery life - typically several years at 5 minute log/transmit interval

Mini Squirrels will be available soon for 1,2,4 and 8 thermistor inputs, 1 and 4 thermocouple inputs and 2 PT100 inputs. Mini Squirrels can be provided for Lux, UV, Air Velocity and more – refer to Eltek Ltd or your local Eltek distributor.

Darca Lite Software

Eltek's Darca Lite software allows configuration, download and analysis of Mini Squirrel devices.
- Fully compatible with Darca Plus data
- Detailed graphing of saved data
- Print graphs
- View data in real time
- Export data as CSV
- Download data with or without stopping logging
- Software updates on Eltek website

Common device specification

Operating environment
Temperature: -5 to +55°C , RH: 0-95% non condensing
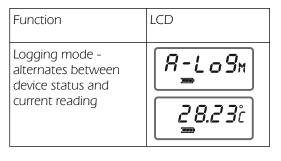Environmental rating: IP50
(Secondary enclosure available for outdoor use, rated IP60)

Data storage
Logging interval: 1 second to 24 hours
Memory capacity is expressed in "readings"
One channel enabled is 87,000 readings
Two channels enabled is 104,000 readings
Three channels enabled is 112,000 readings
Four channels enabled is 118,000 readings

Channel allocations can be renamed using Eltek software.
For example, Channel 1 can be configured to appear as "Main Gallery"
Number of recording runs: 1

LCD display example

Function	LCD
Logging mode - alternates between device status and current reading	$A\text{-}Lo9_M$ $28.23°c$

Guarantee Equipment manufactured by Eltek is guaranteed against faulty materials or workmanship for three years. For repairs carried out under guarantee, no charge is made for labour, materials or return carriage.

Input specification

Parameter	Measurement Range	Accuracy	Resolution
MS10			
RH	0-100%	±2% (10 to 90%) RH	0.1%
		±4% (0 to 100%) RH	0.1%
Temperature	-30 to +65°C	±0.4°C (+5 to +40)°C	0.1ºC
		±1.0°C (-20 to +65)°C	0.1ºC
		±1.5°C (-30 to -20)°C	0.1ºC
MS13E and MS14E: RHT10E RH and temperature input			
RH	0-100%	±2% (10 to 90%) RH	0.1%
		±4% (0 to 100%) RH	0.1%
Temperature	-40 to +120°C	±0.4ºC (+5 to +40ºC)	0.1ºC
		±1.0ºC (-20 to +80ºC)	0.1ºC
MS14E: Thermistor temperature input			
Temperature	-40 to +70°C	±0.2°C (-15 to +40)°C	0.1°C
		±0.4°C (-29 to +65)°C	0.2°C
		±0.6°C (-36 to +70)°C	0.3°C
		±0.8ºC (-40 to -36)°C	0.4°C
Eltek thermistor accuracy	±0.1°C (-0 to +70)°C		
MS47AC and MS47B			
RH	0-100%	±2% (10 to 90%) RH	0.1%
		±4% (0 to 100%) RH	0.1%
Temperature	-30 to +65°C	±0.4°C (+5 to +40)°C	0.1ºC
		±1.0°C (-20 to +65)°C	0.1ºC
		±1.5°C (-30 to -20)°C	0.1ºC
CO_2	0-5000ppm	<±50ppm +3% of measured value over the range -10 to +50°C	

Temperature dependence typically 2ppm CO_2/°C over the range 0 to +50°C. Pressure dependence is 0.14% of measured value/mBar deviation. The CO_2 built in sensor is functional at -20°C, however the accuracy cannot be quantified.
MS47AC: CO2 value is updated every 15 seconds
MS47B: CO2 value is updated every 300 seconds.

Optional battery pack for MS47B

The EL47BATT battery pack extends battery operation to greater than 6 months.
The pack is used in place of the 8 x LR6 battery pack and comprises 2 x lithium thioryl chloride non-rechargeable batteries on a carrier board with self-resetting fuse.
The pack is rated as 3.6Ah.

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