

# MOISTURE MEASUREMENT IN STRAWBALE HOUSES

MEASUREMENT IN OTHER BUILDINGS

KEEPING DRY WITH MONITORING

## LongLastStraw Moisture Monitor

20-05-2010

The LongLastStraw monitor & logger (referred to here as “the logger”) is at present made in two different versions, each with different hardware and software:

- Logger for moisture sensors
- Logger for combined relative humidity and temperature sensors

The hardware and software for these two versions are not interchangeable.

Both versions are for 16 inputs (16 sensors).

The logger takes the measurement from each sensor once an hour, and stores the readings in EEPROM (temporary memory). Once a day, at 18H, the preceding 24 hours’ readings are transferred automatically to a comma separated value file called “moisture.csv” on the USB memory stick plugged into the logger. The information in the file is easily converted to graphs using spreadsheet software like Excel or the equivalent OpenOffice program.

Each set of readings make up one line in this file, so every 24 hours an additional 24 lines are added to the file. Each line starts with the date and time of the measurement in “YY,MM,DD,HH,MM” format, followed by a couple of reserved spaces, then 16 moisture readings, ending with 16 temperature readings (the latter only with the RH/temperature logger).

The alarm level can be specified by the purchaser when ordering. A typical level is 22% for the moisture monitor. When this level is exceeded, an audible beep alarm sounds, and the relevant sensor number is shown on the display, along with the measured level.

The latest or current measurements can be checked at any time on the logger display by pressing a button.

## Specifications

Both types of logger		
	Power supply needed	9V DC regulated, 200 mA or 9V PP3 Alkaline battery
		3V Lithium cell, type CR1632
	Number of sensors	16
	Logger memory	USB memory stick, 1 GB
	File format on memory stick	CSV text file, usable with Excel
	Dimensions	200 H x 265 W x 95 D (mm)
	Clearance needed for cables	50 mm above and below logger
	Cable required	CAT5 or CAT6 Ethernet cable
16M Moisture logger	Accuracy	± 2% in range 32% to 8%
	Precision	2% at 32% to 18% 1% at 18 to 8%,
16HT Relative humidity & temperature logger		
	Temperature accuracy	±0.5°C
	Temperature precision	0.06°C
	RH accuracy	± 2% in range 10% to 90% RH
	RH precision	1%

Norbert Payne

Viborggade 11 kl., 2100 København Ø  
Denmark

<http://moisture-monitor.com>

admin@5eye.dk  
+45 22178855