Holehird Gardens Weather Data

Download Specification

The data files are ASCII csv format, comma separated, each field enclosed by double quotes.

The first line of data contains the field header.

The data fields are as follows:

Header	**Description**	**Format**	**Example**
Year	Calendar year component of date of measurement	YYYY	2008
Month	Calendar month component of date of measurement	Mon-YYYY	Oct-2008
Day	Day component of date of measurement	DD-MON-YYYY	01-OCT-2008
Date Time	Full date and time of measurement	DD-MON-YYYY HH24:MI	01-OCT-2008 17:30
Rain	Rainfall (mm)	Numeric to 3 dp	2.535
Air_Temp	Air temperature (ºC)	Numeric to 5 dp	10.12345
Soil_Temp	Soil Temperature (ºC)	Numeric to 5 dp	12.12345
Pyranometer	Solar Radiation ($w.m^2$)	Numeric to 4 dp	123.1234
Int_Rh	Integral Relative Humidity (%)	Numeric to 5 dp	80.98745
Int_Temp	Integral Temperature (ºC)	Numeric to 5 dp	10.12345
Surf_Wet	Surface Wetness	Numeric to 7 dp	.7373157
Wind_Speed	Wind Speed (m/s)	Numeric to 6dp	1.123456
Wind_Dir	Bearing (degrees)	Integer	265
Comments	Comments - to be read in conjunction with data	Text	air_temp malfunction

MINIMET SENSOR SPECIFICATION

VECTOR WIND DIRECTION

Range:	0 to 360 °
Accuracy:	± 2 ° obtainable in steady winds over 5 m/s
Threshold:	0.6 m/s
Max wind speed:	>75 m/s
Operating range:	-20 to + 70 ° C
Resolution:	Sensor ± 0.2°, datalogger 5°

VECTOR WIND SPEED

Range:	0 to 75 m/s (145 knots)
Accuracy:	2% ± 0.1 m/s
Threshold:	0.3 m/s
Operating range:	-30 to + 55 ° C
Resolution:	Sensor 0.8m, datalogger better than 0.01 m/s

rht+ AIR TEMPERATURE

Range:	-40 to + 60 ° C
Accuracy:	± 0.2 °C between 0 and 60°C
Sensor:	Thermistor
Resolution:	Sensor has an analogue output so its resolution is dependent on the datalogger, the datalogger resolution is better than 0.01°C

rht+ HUMIDITY

Range:	0-100% RH
Accuracy:	± 2% RH
Sensor:	Capacitor
Operating range:	-40 to + 60 ° C
Resolution:	Sensor has an analogue output so its resolution is dependent on the datalogger, the datalogger resolution is better than 0.01 %RH

RAINFALL

Resolution:	0.2 mm per tip
Accuracy:	± 5% (24 to 36 mm/hr)

SOIL TEMPERATURE

Range:	-20 to + 100 ° C
Accuracy:	± 0.2 °C at 0 to 60°C
Sensor:	Thermistor
Resolution:	Sensor has an analogue output so its resolution is dependent on the datalogger, the datalogger resolution is better than 0.01°C

SOLAR RADIATION

Range:	400-1100 nm
Operating range:	-20 to + 70 ° C
Accuracy:	± 5% traceable to UK Met Office
Resolution:	Sensor has an analogue output so its resolution is dependent on the datalogger, the datalogger resolution is better than 0.01 $w.m^{-2}$

AIR PRESSURE

Range:	500 – 1050 mbar
Resolution:	Better than 0.1 mbar
Accuracy:	Absolute error @ 20°C and 1000mbar typically 0.5mbar (max 1 mbar). Error over 0-50°C typically 1.5mbar (maximum 3.6mbar)
Resolution:	Sensor has an analogue output so its resolution is dependent on the datalogger, the datalogger resolution is better than 0.05 mbar