

SIGEO-CTFS meteorological monitoring METADATA



The SIGEO-CTFS stations comprise several sensors recorded automatically by a CR1000 datalogger (Campbell Scientific) at 5 min time interval. These sensors include:

- 1) Aspirated and shield temperature and relative humidity sensor plus an additional secondary temperature sensor (MetOne Instruments)
- 2) 2-D sonic anemometer WS425 (Vaisala)
- 3) Tipping rain bucket TB4-L (Campbell Scientific)
- 4) Solar radiometer CMP11 (Kipp&Zonen), plus a secondary radiometer LI-290 (LiCOR biogeoscience)

Data are available in comma separated format after passing a supervised QA/QC. We produce a new file for each year and each station with name XXX_metdata_5min_yyyy.csv, where XXX is a three code site identifier and yyyy is the year.

Variable	Unit	5-min stat	Description
TIMESTAMP	TS		time in the format mm/dd/yyyy HH:MM
RECORD	RN		record number
RadTot_KZ_Avg	W/m2	Avg	Solar Radiation Kipp&Zonen
RadTot_KZ_Std	W/m2	Std	Solar Radiation Kipp&Zonen
RadTot_Li_Avg	W/m2	Avg	Solar Radiation LiCOR
RadTot_Li_Std	W/m2	Std	Solar Radiation LiCOR
T_Air1_Avg	C	Avg	Air Temperature sensor 1
T_Air1_Std	C	Std	Air Temperature sensor 1
T_Air2_Avg	C	Avg	Air Temperature sensor 2
T_Air2_Std	C	Std	Air Temperature sensor 2
RH_Avg	%	Avg	Relative humidity
RH_Std	%	Std	Relative humidity
WS_WVc(1)	m/s	WVc	mean horizontal wind speed
WS_WVc(2)	deg	WVc	wind direction
WS_WVc(3)	deg	WVc	Std wind direction
u_Avg	m/s	Avg	Mean wind in the u direction
v_Avg	m/s	Avg	Mean wind in the v direction
Prec_Tot	mm	Tot	precipitation
Resis1_Avg	Ohm	Avg	Resistance of temp sensor
Resis1_Std	Ohm	Std	Resistance of temp sensor
Resis2_Avg	Ohm	Avg	Resistance of temp sensor
Resis2_Std	Ohm	Std	Resistance of temp sensor
Asp_Fan_Avg		Avg	Number of fan cycles
BattV_Avg	V	Avg	Battery voltage
Tbox_Avg	C	Avg	Datalogger temperature
Batstat_Avg		Avg	Battery status (1 above 12V, 0 below 12V)