

Micrometeorological Instrumentation at Kruger Park Study Site

Eddy Covariance Tower

Measurement	Instrument Type	Make & Model*	No. Units	Output Units
Turbulence (u,v,w)	3-D Sonic anemometer	Gill Wind Master Pro	1	m s ⁻¹
CO ₂ mixing ratio	Infrared gas analyzer	LiCor 6262	1	μmol mol ⁻¹
H ₂ O mixing ratio	Infrared gas analyzer	LiCor 6262	1	mmol mol ⁻¹
Air pressure	Barometric pressure sensor	Vaisala Barocap	1	mb
Air temperature	PT1000	Vaisala HMP45C	1	C
Relative humidity	Capacitive RH sensor	Vaisala HMP45C	1	%
Incoming/reflected shortwave radiation	Pyranometer	Kipp & Zonen CM14	1	W m ⁻²
Incoming/emitted longwave radiation	Pyrgeometer	Kipp & Zonen CG2	1	W m ⁻²
Precipitation	Tipping bucket	Texas Instruments TE525	1	mm
Wind speed	Cup anemometer	Climatronics F460	1	m s ⁻¹
Wind direction	Wind vane	Climatronics F460	1	Degrees North

Combretum Tower

Measurement	Instrument Type	Make & Model*	No. Units	Output Units
CO ₂ concentration profile	Infrared gas analyzer	PP Systems CIRAS-SC	1	μmol mol ⁻¹
H ₂ O concentration profile	Infrared gas analyzer	PP Systems CIRAS-SC	1	mb
Air temperature profile	PT1000	R.M. Young 41342	4	C
Soil temperature profile	Thermistor	Campbell Scientific 108	8	C
Soil moisture profile	Water content reflectometer	Campbell Scientific CS615	8	m ³ m ⁻³
Soil heat flux	Thermopile gradient	REBS HFT3	3	W m ⁻²

Acacia Tower

Measurement	Instrument Type	Make & Model*	No. Units	Output Units
CO ₂ concentration profile	Infrared gas analyzer	PP Systems CIRAS-SC	1	μmol mol ⁻¹
H ₂ O concentration profile	Infrared gas analyzer	PP Systems CIRAS-SC	1	mb
Air temperature profile	PT1000	R.M. Young 41342	4	C
Soil temperature profile	Thermistor	Campbell Scientific 108	10	C
Soil moisture profile	Water content reflectometer	Campbell Scientific CS615	10	m ³ m ⁻³
Soil heat flux	Thermopile gradient	REBS HFT3	3	W m ⁻²

* Listing of manufacturer and model does not constitute product endorsement by the Investigators, Colorado State University or funding agencies.