

Tabela equipamentos – MEAÍPE

Variable	Unit (SI)	Sensor	Range	Accuracy	Height (m)
Air temperature	°C	Campbell Sci. Model HC2S3	-40 to +70	±0.1°C at +23°C	3.66
Relative humidity	%		0 to 100%	±0.8% at +23°C	
Pressure	hPa	Vaisala Model PTB110	500 to 1100 hPa	±0.6hPa (@ 0° to 40°C)	0.55
Wind speed	m s ⁻¹	RM Young Model Model 05103	0-100 ms ⁻¹	±0.3 ms ⁻¹	4.31
Wind direction	degree		0-360 degree	±3 degree	
Pyranometer	W m ⁻²	Kipp Zonen Net Radiation Model CNR4	305 to 2800 nm	< 5%	3.94
Pyrgeometer			4500 to 42000nm	< 10%	
Rain Gage	mm	HS Hyquest Solutions Model CS700-L	0 to 700 mmh ⁻¹	±2% @ < 250 mmh ⁻¹	2.4
Soil temperature	°C	Campbell Sci. Model 109	-50 to 70 °C	±0.1°C (0 to 70°C)	-0.05
Soil heat flux	W m ⁻²	Hukseflux Model HFP01	± 2000 Wm ²	Within -15% to +5% in most common soils (12 hour totals)	-0.05
Gamma radiation	µSv/h	Gamma-Scout	0.01 – 5000 µSvh ⁻¹	< 1%	0.11 0.35 2.99
Ux	m s ⁻¹	Campbell Sci Anemometer sonic Model CSAT3	±30 ms ⁻¹ , ±60 ms ⁻¹	< ±0.08 ms ⁻¹	4.10
Uy					
Uz			±8 ms ⁻¹	< ±0.08 ms ⁻¹	
c*			300 to 366 ms ⁻¹ (-50° to +60°C)	< ±0.04 ms ⁻¹	
CO ₂	µmol mol ⁻¹	LICOR Gas Analyzer Model LI-7500	0 to 3000 µmol mol ⁻¹	1%	4.12
H ₂ O	mmol mol ⁻¹		0 to 60 mmol mol ⁻¹	1%	
Temperature	°C		-25 to 50°C	Under the worst conditions (50°C and saturated), a 10 °C error in the temperature measurement would make less than a 0.01% error in the CO ₂ number density. Mole fraction errors in pressure and temperature are directly proportional to errors in mole fraction.	
Pressure	kPa		50 to 110 kPa		

*Speed of sound