



METER
ENVIRONMENT

ATMOS 41 ACCURACY AND SPECTRAL RESPONSE SPECIFICATIONS

ATMOS 41

ATMOS 41 relative humidity sensor

Accuracy varies with temperature and humidity, $\pm 3\%$ RH typical.

HUMIDITY (%RH)	100	$\pm 2.0\%$								
	90	$\pm 2.0\%$								
	80	$\pm 2.0\%$	$\pm 1.5\%$	$\pm 2.0\%$	$\pm 2.0\%$	$\pm 2.0\%$				
	70	$\pm 1.5\%$	$\pm 2.0\%$	$\pm 2.0\%$						
	60	$\pm 1.5\%$	$\pm 2.0\%$	$\pm 2.0\%$						
	50	$\pm 1.5\%$	$\pm 2.0\%$	$\pm 2.0\%$						
	40	$\pm 1.5\%$	$\pm 2.0\%$							
	30	$\pm 1.5\%$	$\pm 2.0\%$							
	20	$\pm 1.5\%$	$\pm 2.0\%$							
	10	$\pm 1.5\%$	$\pm 2.0\%$							
	0	$\pm 1.5\%$	$\pm 2.0\%$							
	0	10	20	30	40	50	60	70	80	
	TEMPERATURE (°C)									

Figure 1. RH sensor accuracy

ATMOS 41 vapor pressure sensor

Accuracy varies with temperature and humidity, ± 0.2 kPa typical below 40 °C

HUMIDITY (%RH)	100	± 0.03	± 0.05	± 0.09	± 0.16	± 0.27	± 0.44	± 0.69	± 1.33	± 2.38
	90	± 0.03	± 0.05	± 0.09	± 0.15	± 0.26	± 0.42	± 0.66	± 1.26	± 2.24
	80	± 0.03	± 0.04	± 0.07	± 0.12	± 0.21	± 0.34	± 0.63	± 1.20	± 2.10
	70	± 0.02	± 0.04	± 0.07	± 0.12	± 0.20	± 0.32	± 0.50	± 1.13	± 1.96
	60	± 0.02	± 0.03	± 0.06	± 0.11	± 0.18	± 0.30	± 0.47	± 1.06	± 1.82
	50	± 0.02	± 0.03	± 0.06	± 0.10	± 0.17	± 0.28	± 0.45	± 0.99	± 1.68
	40	± 0.02	± 0.03	± 0.05	± 0.09	± 0.16	± 0.26	± 0.42	± 0.76	± 1.54
	30	± 0.01	± 0.03	± 0.05	± 0.09	± 0.15	± 0.24	± 0.39	± 0.69	± 1.40
	20	± 0.01	± 0.02	± 0.04	± 0.08	± 0.14	± 0.23	± 0.36	± 0.62	± 1.26
	10	± 0.01	± 0.02	± 0.04	± 0.07	± 0.12	± 0.21	± 0.33	± 0.55	± 1.13
	0	± 0.01	± 0.02	± 0.04	± 0.06	± 0.11	± 0.19	± 0.30	± 0.48	± 0.99
	0	10	20	30	40	50	60	70	80	
	TEMPERATURE (°C)									

Figure 2. Vapor pressure sensor accuracy

PYRANOMETER SPECTRAL RESPONSE

Spectral response estimate of Apogee silicon-cell pyranometers. Spectral response was estimated by multiplying the spectral response of the photodiode, diffuser, and adhesive. Spectral response measurements of diffuser and adhesive were made with a spectrometer, and spectral response data for the photodiode were obtained from the manufacturer. See graph below.

