

SciLog DN: 3137 SciTemp, Temperature Sensor, pH=2, 100 Hour Exposure Test
0.01 Molar Sulfuric Acid at Room Temperature
All Tested Sensors w/o Vent-Holes

Sensor ID	25 Hours			50 Hours			75 Hours			100 Hours		
	NIST (°C)	SciTemp (°C)	Δ	NIST (°C)	SciTemp (°C)	Δ	NIST (°C)	SciTemp (°C)	Δ	NIST (°C)	SciTemp (°C)	Δ
A1-210079-0108	23.72	23.77	0.05	25.67	25.72	0.05	27.51	27.56	0.05	23.98	24.03	0.05
A1-210077-0108	23.72	23.77	0.05	25.67	25.72	0.05	27.51	27.55	0.04	23.98	24.03	0.05
A1-210076-0108	23.72	23.79	0.07	25.67	25.75	0.08	27.51	27.57	0.06	23.98	24.05	0.07
A1-210075-0108	23.72	23.73	0.01	25.67	25.73	0.06	27.51	27.54	0.03	23.98	24.03	0.05
Group Ave	23.77			25.73			27.56			24.04		
SD	0.03			0.01			0.01			0.01		
%SD	0.11%			0.05%			0.05%			0.04%		

SUMMARY: The SciTemp sensor response data, collected over 100 hours of continuous pH 2 solution (0.01 molar sulfuric acid) exposure, show a stable sensor accuracy and precision level. For individual sensors, the average sensor response, measured at room temperature (23-27°C), stays within established limits of +/- 0.10 °C. The same holds for the sensor group averages based on the response of five sensors. The stability of the SciTemp sensor when exposed to pH 2 solution has been verified by

TEST PROTOCOL: Four, pre-calibrated SciTemp Luer sensors (w/o vent-holes) were removed from inventory and exposed to pH 2 solution (0.01 molar sulfuric acid) for 100hours. The 0.01 molar sulfuric acid solution was continuously pumped/re-circulated (100ml/min) through the in-line sensor assembly using a peristaltic pump. A NIST-traceable thermistor was used as a reference. At 25 hour intervals the sensor and reference readings were recorded.

NOTE: SciLog Sensor have been design for single-use applications. However, with proper care, the sensors can be re-used repeatedly while maintaing good accuracy and precision. If required, sensors can be re-calibrated using the monitor "Custom Calibration" feature.