

**SciLog DN 3138: SciPres Pressure Sensor, 100 Hr. Exposure Test,  
pH 2.0, 0.01 Molar Sulfuric Acid at 22 °C**

\* SD = Standard Deviation

Test Data Sensor ID	Start		25 hr Test		50 hr Test		75 hr Test		100 hr Test		Sensor Average 30.03	Sensor SD* 30.03 psi
	NIST 0.00	NIST 30.07	NIST 0.00	NIST 30.01	NIST 0.00	NIST 30.00	NIST 0.00	NIST 30.05	NIST 0.00	NIST 30.02		
S1-230240-1007	0.02	30.07	0.02	30.04	0.03	30.01	0.01	30.05	0.02	30.05	<b>30.04</b>	<b>0.02</b>
S1-210118-0609	0.00	30.12	0.00	30.07	0.01	30.04	0.00	30.09	0.01	30.07	<b>30.08</b>	<b>0.03</b>
S1-230117-0609	0.00	30.12	0.00	30.06	0.00	30.04	0.00	30.06	0.00	30.07	<b>30.07</b>	<b>0.03</b>
S1-240116-0609	0.00	30.12	0.00	30.07	0.00	30.05	0.00	30.06	0.00	30.07	<b>30.08</b>	<b>0.03</b>
<b>Group Average</b> <b>Group SD*</b>	<b>0.01</b>	<b>30.11</b> <b>0.03</b>	<b>0.01</b>	<b>30.06</b> <b>0.01</b>	<b>0.01</b>	<b>30.04</b> <b>0.02</b>	<b>0.00</b>	<b>30.07</b> <b>0.02</b>	<b>0.01</b>	<b>30.07</b> <b>0.01</b>		

**SUMMARY:** The sensor response data, collected over 100 hours of continuous pH 2 (sulfuric acid) exposure, show a stable sensor accuracy and precision level over time. For individual sensors, the average accuracy measured @ 30.00 psi of applied pressure, stays well within established limits of +/- 0.3 psi. The same holds for the sensor group averages based on the responses of the four sensors.

**NOTE:** SciLog sensors have been designed for disposable, single-use applications. However, with proper care, the sensors can be re-used repeatedly while maintaining good accuracy and precision. If required, sensors can be re-calibrated.

**CAUTION:** Do Not Exceed Maximum Pressure of 60 psi

**Test Protocol:** Four pre-calibrated (30.00 psi) SciPres Luer pressure sensors were exposed to pH 2.0 (0.01M sulfuric acid) for 100 hours at 22 °C. The pH 2.0 exposure test was carried out under static conditions. Four SciPres sensor were connected together with unions. The sensor assembly was capped on one end and pH 2.0 sulfuric acid solution was poured into the sensor cavity. At 25 hour intervals, the test was briefly interrupted, the sensors were flushed 3x with distilled water and purged for 5 minutes with distilled water utilizing a peristaltic recirculation pump. The sensors were tested at 0.0 (ambient air) and at 30.00 psi nominal applied pressure. All sensor responses were monitored with a NIST- traceable gauge. Sensors were tested with their original factory calibration; no re-calibration were carried out before or during the test run.

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