

SciLog DN 3132: "Out-of-Box" Sensor Performance Test: SciPres Luer

Test Protocol: Eighteen, pre-calibrated pressure sensor (SciPres Luer) from three different sensor lots were tested to determine "out-of-box" sensor performance. The tests were carried out at 0, 15 and 30 psi of applied pressure. The sensor responses as well as the associated readings of an in-line, NIST-traceable gauge were recorded. The accuracy and precision of all tested sensors were within established limits. No "out-of-box" sensor failures were found

Lot 1: SciPres Luer			Applied 0 psi		Applied 15 psi		Applied 30psi	
Factory Calibration 12/16/08			NIST	Sensor	NIST	Sensor	NIST	Sensor
Sensor ID	CF	PZ	Pressure	Response	Pressure	Response	Pressure	Response
S1-210175-1208	1.037	14	0.00	0.00	14.98	15.07	30.00	30.00
S1-210176-1208	1.022	-57	0.00	0.00	14.98	14.94	30.00	30.01
S1-210177-1208	1.020	-17	0.00	0.00	14.98	14.90	30.00	30.01
S1-210179-1208	1.026	-16	0.00	0.00	14.98	14.98	30.00	30.02
S1-210180-1208	1.031	-63	0.00	0.02	14.98	15.00	30.00	30.02
S1-210181-1208	1.023	-21	0.00	0.00	14.98	14.93	30.00	30.00
Group Average	1.027	-27	0.00	0.00	14.98	14.97	30.00	30.01
Group SD	0.006	29	0.000	0.008	0.000	0.061	0.000	0.009

Lot 2: SciPres Luer			Applied 0 psi		Applied 15 psi		Applied 30 psi	
Factory Calibration 1/7/09			NIST	Sensor	NIST	Sensor	NIST	Sensor
Sensor ID	CF	PZ	Pressure	Response	Pressure	Response	Pressure	Response
S1-210224-0109	1.028	-66	0.00	-0.02	14.98	14.95	30.00	29.99
S1-210225-0109	1.014	-23	0.00	0.00	14.98	14.85	30.00	29.98
S1-210226-0109	1.012	-4	0.00	0.00	14.98	14.85	30.00	29.98
S1-210227-0109	1.029	-9	0.00	0.00	14.98	14.99	30.00	30.00
S1-210228-0109	1.028	-23	0.00	0.00	14.98	14.99	30.00	29.99
S1-210229-0109	1.039	-1	0.00	0.00	14.98	15.04	30.00	29.98
Group Average	1.025	-21	0.00	0.00	14.98	14.95	30.00	29.99
Group SD	0.010	24	0.000	0.008	0.000	0.079	0.000	0.008

Lot 3: SciPres Luer			Applied 0 psi		Applied 15 psi		Applied 30 psi	
Factory Calibration 1/15/09			NIST	Sensor	NIST	Sensor	NIST	Sensor
Sensor ID	CF	PZ	Pressure	Response	Pressure	Response	Pressure	Response
S1-220033-0109	1.030	-5	0.00	0.00	15.02	15.05	30.05	30.05
S1-220034-0109	1.036	14	0.00	-0.02	15.02	15.30	30.05	30.03
S1-220035-0109	1.066	-63	0.00	0.00	15.02	15.09	30.05	30.03
S1-220036-0109	1.020	-5	0.00	0.00	15.02	15.00	30.05	30.03
S1-220038-0109	1.029	-27	0.00	0.00	15.02	15.01	30.05	30.04
S1-220042-0109	1.013	-23	0.00	0.00	15.02	14.91	30.05	30.05
Group Average	1.032	-18	0.00	0.00	15.02	15.06	30.05	30.04
Group SD	0.018	26	0.000	0.008	0.000	0.132	0.000	0.010