

SciLog DN 3134: "Out-of-Box" Sensor Performance Test: SciCon Luer

Test Protocol: Eighteen, pre-calibrated conductivity sensors (SciCon Luer) from three different sensor lots were tested to determine "out-of-box" sensor performance. The tests were carried out with a NIST-traceable standard solution (12.88 mS). The sensor conductivity and temperature responses were recorded. The accuracy and precision levels for tested sensors were within established limits. No "out-of-box" sensor failures were found

Lot 1: SciCon Luer Factory Calibrated 10/11/2007			NIST Conductivity mS	Sensor Response mS	NIST Temperature °C	Sensor Response °C
Sensor ID	CF	TO				
C1-230163-1007	0.649	-0.01	12.88	13.06	25.00	24.7
C1-230164-1007	0.625	0.18	12.88	13.02	25.00	24.7
C1-230165-1007	0.637	0.31	12.88	13.08	24.99	24.7
C1-230166-1007	0.625	0.30	12.88	12.90	24.99	24.9
C1-230167-1007	0.634	0.56	12.88	13.02	24.99	24.4
C1-230168-1007	0.627	-0.37	12.88	13.09	24.99	24.4
Group Average	0.633	0.16	12.88	13.03	24.99	24.63
Group SD	0.009	0.32	0.000	0.069	0.000	0.197

Lot 2: SciCon Luer Factory Calibrated 2/29/2008			NIST Conductivity mS	Sensor Response mS	NIST Temperature °C	Sensor Response °C
Sensor ID	CF	TO				
C1-240139-0208	0.602	0.42	12.88	12.74	24.98	25.0
C1-240140-0208	0.630	0.42	12.88	12.90	24.98	24.8
C1-240141-0208	0.622	0.43	12.88	12.71	24.98	25.0
C1-240142-0208	0.615	0.39	12.88	12.71	24.97	24.8
C1-240143-0208	0.611	0.15	12.88	12.88	24.97	24.6
C1-240144-0208	0.630	0.28	12.88	12.78	24.97	24.7
Group Average	0.618	0.35	12.88	12.79	24.98	24.82
Group SD	0.011	0.11	0.000	0.084	0.000	0.160

Lot 3: SciCon Luer Factory Calibrated 5/15/2008			NIST Conductivity mS	Sensor Response mS	NIST Temperature °C	Sensor Response °C
Sensor ID	CF	TO				
C1-240484-0508	0.614	-0.02	12.88	12.90	24.97	24.9
C1-240484-0508	0.631	0.44	12.88	13.00	24.97	24.7
C1-240484-0508	0.614	0.42	12.88	12.94	24.97	24.7
C1-240484-0508	0.620	-0.02	12.88	12.75	24.97	24.7
C1-240484-0508	0.620	0.52	12.88	13.01	24.97	24.7
C1-240484-0508	0.609	0.20	12.88	12.82	24.97	24.6
Group Average	0.618	0.26	12.88	12.90	24.97	24.72
Group SD	0.008	0.24	0.000	0.103	0.000	0.098