



REPORT OF CALIBRATION

This instrument is calibrated and tested to verify compliance with Martel's test specifications for all ranges and parameters required to meet 1 year performance specifications. The calibration uses measurement standards traceable to the National Institute of Standards and Technology (NIST). This calibration complies with the requirements of ANSI/NCSL Z540-1-1994 part 2. Calibration and verification are performed at an ambient temperature of $23 \pm 5^{\circ}\text{C}$ and relative humidity of $> 20\%$ to $< 70\%$.


Any test uncertainty (TUR) less than 4:1 appears under the TUR heading on the data record. Where the TUR meets or exceeds 4:1, the TUR field is blank.

Tom Fatur

Tom Fatur
President

Florin Visuian

Calibrated By
Florin Visuian

Manufacturer:	Martel Corporation	Cal Date:	December 27, 2013
Model:	321A-EX 50C/3000G	Report Date:	December 27, 2013
Serial Number:	2622089	Temperature:	20.9°C
		Relative Humidity:	31 %
Calibration Procedure:	3X1A-Ex MASTER : (1 year) FINAL VER MAN/8100 7310C J		
Procedure Revision:	2.1		

Standards Used

Asset	Manufacturer	Model Number	Description	Cal. Date	Due Date
570131	Mensor	8100	Pressure Standard	17-Sep-13	17-Jan-14
58774-7310	Ruska	7310	Pressure Standard	16-Jul-13	16-Jul-14
1205100	Martel Corporation	M3001	Calibrator	2-Dec-13	28-Feb-14

Test Data

PARAMETER	RESULT	ACCEPTANCE LIMITS		TUR
		LOW	HIGH	
P1 -12.00 to 50.00 psi Verification.				
50.00_psi	50.00	49.99	50.01	PASS
43.75_psi	43.75	43.74	43.76	PASS
31.25_psi	31.25	31.24	31.26	PASS
18.75_psi	18.75	18.74	18.76	PASS
8.75_psi	8.75	8.74	8.76	PASS
0.00_psi	0.00	-0.01	0.01	PASS
-7.00_psi	-7.00	-7.02	-6.98	PASS
-14.00_psi	-14.00	-14.02	-13.98	PASS
P1 -0.9653 to 3.5000 Bar Verification.				
3.4474"Bar"	3.4475	3.4465	3.4483	PASS
3.0165"Bar"	3.0163	3.0156	3.0174	PASS
2.1546"Bar"	2.1544	2.1537	2.1555	PASS
1.2928"Bar"	1.2926	1.2919	1.2937	PASS
0.6033"Bar"	0.6032	0.6024	0.6042	PASS
0.0000"Bar"	0.0000	-0.0009	0.0009	PASS
-0.4826"Bar"	-0.4828	-0.4840	-0.4812	PASS
-0.9653"Bar"	-0.9655	-0.9667	-0.9639	PASS
P1 -96.5 to 350.0 kPa Verification.				
344.7_kPa	344.8	344.6	344.8	PASS

MET/CAL RunTime Report: Calibration Results

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PARAMETER	RESULT	ACCEPTANCE LIMITS		TUR
		LOW	HIGH	
301.7_kPa	301.6	301.6	301.8	PASS
215.5_kPa	215.4	215.4	215.6	PASS
129.3_kPa	129.3	129.2	129.4	PASS
60.3_kPa	60.3	60.2	60.4	PASS
0.0_kPa	0.0	-0.1	0.1	PASS
-48.3_kPa	-48.3	-48.4	-48.2	PASS
-96.5_kPa	-96.5	-96.6	-96.4	PASS
P2 0.0 to 3000.0 psi Verification.				
0.0_psi	0.0	-0.8	0.8	PASS
200.0_psi	199.9	199.2	200.8	PASS
600.0_psi	599.8	599.2	600.8	PASS
1000.0_psi	999.8	999.2	1000.8	PASS
1300.0_psi	1299.7	1299.2	1300.8	PASS
1700.0_psi	1699.7	1699.2	1700.8	PASS 2.7
2050.0_psi	2049.8	2049.2	2050.8	PASS 2.7
2500.0_psi	2499.7	2499.2	2500.8	PASS 2.7
2800.0_psi	2799.9	2799.2	2800.8	PASS 2.7
3000.0_psi	3000.1	2999.2	3000.8	PASS 2.7
P2 0.0 to 206.80 Bar Verification.				
0.00"Bar"	0.00	-0.05	0.05	PASS
13.79"Bar"	13.78	13.74	13.84	PASS
41.37"Bar"	41.35	41.32	41.42	PASS
68.95"Bar"	68.93	68.90	69.00	PASS
89.63"Bar"	89.61	89.58	89.68	PASS
117.21"Bar"	117.19	117.16	117.26	PASS
141.34"Bar"	141.33	141.29	141.39	PASS 2.8
172.37"Bar"	172.35	172.32	172.42	PASS 2.8
193.05"Bar"	193.05	193.00	193.10	PASS 2.8
206.84"Bar"	206.85	206.79	206.89	PASS 2.8
P2 0.0 to 20680 kPa Verification.				
0_kPa	0	-5	5	PASS
1379_kPa	1378	1374	1384	PASS
4137_kPa	4135	4132	4142	PASS
6895_kPa	6893	6890	6900	PASS
8963_kPa	8961	8958	8968	PASS
11721_kPa	11719	11716	11726	PASS
14134_kPa	14133	14129	14139	PASS 2.8
17237_kPa	17235	17232	17242	PASS 2.8
19305_kPa	19305	19300	19310	PASS 2.8
20684_kPa	20685	20679	20689	PASS 2.8
Current Read Verification.				
4.000mA	4.000	3.997	4.003	PASS
12.000mA	12.000	11.996	12.004	PASS
20.000mA	20.000	19.995	20.005	PASS
PT385-100 Read Verification.				
-40.00degC	-40.00	-40.10	-39.90	PASS
0.00degC	0.00	-0.10	0.10	PASS
150.00degC	150.00	149.90	150.10	PASS