



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
Model: 311 30D psi
Serial Number: 9956053

Cal Date: January 8, 2014
Report Date: January 8, 2014
Temperature: 20.8°C
Relative Humidity: 31 %

Calibration Procedure: SR/DR MASTER : (1 year) FINAL VER MAN/8100 7310C J
Procedure Revision: 2.1

Standards Used

Asset	Manufacturer	Model Number	Description	Cal. Date	Due Date
47446	Ruska	7010D0030	Pressure Controller	19-Dec-13	19-Mar-14
9798203	Martel Corporation	M3001	Calibrator	13-Nov-13	13-Feb-14

Test Data

PARAMETER	RESULT	ACCEPTANCE LIMITS			TUR
		LOW	HIGH		
P1 -14.000 to 30.000 psi Verification.					
30.000_psi	30.001	29.992	30.008	PASS	3.1
28.000_psi	28.001	27.992	28.008	PASS	3.3
25.000_psi	25.000	24.992	25.008	PASS	3.6
21.000_psi	21.001	20.992	21.008	PASS	
15.000_psi	15.001	14.992	15.008	PASS	
12.000_psi	11.999	11.992	12.008	PASS	
9.000_psi	9.000	8.992	9.008	PASS	
5.000_psi	5.001	4.992	5.008	PASS	
2.000_psi	2.001	1.992	2.008	PASS	
0.000_psi	0.000	-0.008	0.008	PASS	
-3.000_psi	-3.001	-3.008	-2.992	PASS	
-7.000_psi	-6.998	-7.008	-6.992	PASS	
-12.000_psi	-12.001	-12.008	-11.992	PASS	
-14.000_psi	-14.001	-14.008	-13.992	PASS	
P1 -0.9653 to 2.0684 Bar Verification.					
2.0684"Bar"	2.0685	2.0679	2.0689	PASS	3.1
1.9306"Bar"	1.9306	1.9301	1.9311	PASS	3.3
1.7236"Bar"	1.7237	1.7231	1.7241	PASS	3.6
1.4478"Bar"	1.4480	1.4473	1.4483	PASS	
1.0342"Bar"	1.0343	1.0337	1.0347	PASS	
0.8274"Bar"	0.8273	0.8269	0.8279	PASS	

PARAMETER	RESULT	ACCEPTANCE LIMITS		TUR
		LOW	HIGH	
0.6206"Bar"	0.6205	0.6201	0.6211	PASS
0.3448"Bar"	0.3448	0.3443	0.3453	PASS
0.1378"Bar"	0.1380	0.1373	0.1383	PASS
0.0000"Bar"	0.0000	-0.0005	0.0005	PASS
-0.2068"Bar"	-0.2069	-0.2073	-0.2063	PASS
-0.4826"Bar"	-0.4825	-0.4831	-0.4821	PASS
-0.8274"Bar"	-0.8274	-0.8279	-0.8269	PASS
-0.9653"Bar"	-0.9653	-0.9658	-0.9648	PASS
P1 -96.53 to 206.84 kPa Verification.				
206.84 kPa	206.85	206.79	206.89	PASS 3.1
193.06 kPa	193.06	193.01	193.11	PASS 3.3
172.36 kPa	172.37	172.31	172.41	PASS 3.6
144.78 kPa	144.80	144.73	144.83	PASS
103.42 kPa	103.43	103.37	103.47	PASS
82.74 kPa	82.73	82.69	82.79	PASS
62.06 kPa	62.05	62.01	62.11	PASS
34.48 kPa	34.48	34.43	34.53	PASS
13.78 kPa	13.80	13.73	13.83	PASS
0.00 kPa	0.00	-0.05	0.05	PASS
-20.68 kPa	-20.69	-20.73	-20.63	PASS
-48.26 kPa	-48.25	-48.31	-48.21	PASS
-82.74 kPa	-82.74	-82.79	-82.69	PASS
-96.53 kPa	-96.53	-96.58	-96.48	PASS
Voltage Read Verification.				
0.000V	0.000	-0.002	0.002	PASS
15.000V	15.000	14.996	15.004	PASS
30.000V	30.000	29.993	30.007	PASS
Loop Verification.				
29.000V	26.810	23.000	35.000	PASS
Current Read Verification.				
4.000mA	4.001	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