

## Certificate of Calibration Fluke Park Laboratory

<b>Description:</b>	PRESSURE CONTROLLER/CALIBRATOR	<b>Certificate Number:</b>	1500212521
<b>Manufacturer:</b>	FLUKE CALIBRATION	<b>Date of Calibration:</b>	06 Feb 2017
<b>Model:</b>	7250i	<b>Date Due:</b>	06 Feb 2018
<b>Serial Number:</b>	68521	<b>Temperature:</b>	20.0 to 26.0 °C
<b>Status:</b>	AS-LEFT	<b>Relative Humidity:</b>	10 to 70 %RH
		<b>Pressure:</b>	95 to 103 kPa
<b>Calibration:</b>	FULL	<b>Issue Date:</b>	06 Feb 2017
<b>Procedure:</b>	PCAL_H SECONDARY: ZCAL/ACAL VER : 20120624		
<b>Customer:</b>	MESA LABORATORIES INC	<b>RMA/SO Number:</b>	31188219
	LAKWOOD, CO	<b>Customer ID:</b>	TE10572
<b>PO Number:</b>	PO-007301		

This calibration is traceable to the SI through recognized national measurement institutes (NIST, PTB, NPL, NIM, NRC, etc.), radiometric techniques, or natural physical constants and is in compliance with ISO/IEC17025:2005 and ANSI/NCSL Z540.1. The calibration has been completed in accordance with the Fluke Corporate Quality System document QSD 111.0. Calibration certificates without identification of the authorizing person are not valid. This certificate applies to only the item identified and shall not be reproduced other than in full, without the specific written approval by Fluke Corporation.

This calibration certificate may contain data that is not covered by the Scope of Accreditation. The unaccredited test points, where applicable, are indicated by an asterisk (\*), or confined to clearly marked sections. This certificate shall not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

Measurement uncertainties at the time of test are given where applicable. They are calculated in accordance with the method described in the ISO Guide to the Expression of Uncertainty in Measurement. The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k such that the coverage probability corresponds to approximately 95 %.

**Comments:**



  
 Approved Signatory  
**Ken Cowan**  
 Authorized Signatory

**Standards Used**

Description	Serial Number	Due-Date
DH INSTRUMENTS PC-7607-5 KPA/KG PISTON-CYLINDER	410	09-Oct-2017
DH INSTRUMENTS PC-7100/7600-50 KPA/KG PISTON-CYLINDER	668	11-Aug-2018
FLUKE CALIBRATION 2468-758 PISTON-CYLINDER	TL1588	18-May-2019
FLUKE CALIBRATION MS-AMH-38 MASS SET	2170	23-Jun-2018
FLUKE CALIBRATION MS-AMH-38 MASS SET	2815	19-May-2017
RUSKA 2468A-799 MASS SET	55617	29-May-2019
DH INSTRUMENTS PG7601 PISTON GAUGE BASE	197	03-Mar-2017
DH INSTRUMENTS PG7607 PISTON GAUGE BASE	169	21-Feb-2017
RUSKA 2455-11-006 PRT	56480	11-May-2017
GE SENSING 2456-801 PISTON GAUGE MONITOR	67607	12-May-2017
TROEMNER CLASS S TRIM MASS SET	53185	28-Sep-2018
FLUKE CALIBRATION 2456-LEM LABORATORY ENVIRONMENT MONITOR	56915	15-Apr-2017

**Quality Manuals**

This calibration has been completed in accordance with:

- The Fluke Corporate Quality Manual, QSD 111.0, Revision 118, Dated August, 2014 and/or
- The Fluke 17025 Quality Manual, QSD 111.41, Revision 005, Dated Sept. 2014

**TEST CONDITIONS**

Four hours were allowed for the device under test temperature to stabilize before commencing the test.

The primary sensor was zeroed to reduce zero drift before collecting data.

**Reference level:** The bottom of the display where the display and the front panel join.

**PERFORMANCE SPECIFICATIONS: 7250i**

MODEL	7250i
Precision <sup>1</sup>	From 25% to 100% FS: $\pm 0.005\%$ of Reading, Below 25% FS: $\pm 0.005\%$ of 25% FS
Negative Gauge Precision (Optional) <sup>1</sup>	Greater of $\pm 0.005\%$ of 25% FS or 0.00075 psi (0.005 kPa)
Stability <sup>2</sup>	0.0075% of reading

**Barometric Sensor Option:**

The two sigma expanded uncertainty of the barometric reference sensor is estimated to be less than or equal to 0.002 psi (13.8 Pa) per year. It is recommended that this uncertainty component be combined in quadrature (RSS) with the primary sensor uncertainty when operating in absolute mode with a barometric sensor.

**Vacuum Sensor (Evacuated Reference) Option:**

The two sigma expanded uncertainty of the vacuum sensor used to monitor the reference pressure is estimated to be the greater of 10% of reading or 10 mTorr (1.33 Pa), whichever is greater per year. It is recommended that this uncertainty component be combined in quadrature (RSS) with the primary sensor uncertainty when operating in absolute mode with an evacuated reference vacuum sensor.

**Notes:**

1. Precision is defined as the combined effect of linearity, repeatability and hysteresis throughout the operating temperature range.
2. One-Year stability specification. This uncertainty is combined in quadrature (RSS) with the precision specification for data reported as "As Found".

No statement of compliance with specifications is made or implied on this certificate. If manufacturer's specifications are listed, measured values greater than the manufacturer's specification limits are indicated by 'MV>Spec'.

Applied	Test Result	Error	Measurement Uncertainty	Specification
AS LEFT DATA				
PRIMARY SENSOR VERIFICATION: GAUGE				
0.0000 kPa	-0.001 kPa	-0.0009 kPa	5.8E-001 Pa	0.013 kPa
130.9245 kPa	130.922 kPa	-0.0022 kPa	2.6E+000 Pa	0.013 kPa
386.6364 kPa	386.634 kPa	-0.0022 kPa	7.4E+000 Pa	0.019 kPa
647.1755 kPa	647.176 kPa	0.0009 kPa	1.2E+001 Pa	0.032 kPa
903.3076 kPa	903.300 kPa	-0.0072 kPa	1.7E+001 Pa	0.045 kPa
1034.1030 kPa	1034.100 kPa	-0.0031 kPa	2.0E+001 Pa	0.052 kPa
516.5653 kPa	516.571 kPa	0.0059 kPa	9.9E+000 Pa	0.026 kPa
260.5632 kPa	260.570 kPa	0.0072 kPa	5.0E+000 Pa	0.013 kPa
0.0000 kPa	-0.001 kPa	-0.0007 kPa	5.8E-001 Pa	0.013 kPa

Medium used: Nitrogen  
Date Tested: 20170203

PRIMARY SENSOR VERIFICATION: NEGATIVE GAUGE				
0.0000 kPa	-0.001 kPa	-0.0014 kPa	5.8E-001 Pa	0.013 kPa
-25.0000 kPa	-25.001 kPa	-0.0014 kPa	6.9E-001 Pa	0.013 kPa
-50.0020 kPa	-50.003 kPa	-0.0009 kPa	9.5E-001 Pa	0.013 kPa
-75.0010 kPa	-75.002 kPa	-0.0006 kPa	1.3E+000 Pa	0.013 kPa
-100.0020 kPa	-100.002 kPa	-0.0005 kPa	1.6E+000 Pa	0.013 kPa
-50.0020 kPa	-50.004 kPa	-0.0025 kPa	9.5E-001 Pa	0.013 kPa
0.0000 kPa	-0.003 kPa	-0.0025 kPa	5.8E-001 Pa	0.013 kPa

Medium used: Air  
Date Tested: 20170206

BAROMETRIC SENSOR VERIFICATION				
74.82231 kPa	74.8225 kPa	0.00014 kPa	1.3E+000 Pa	0.0138 kPa
89.86339 kPa	89.8632 kPa	-0.00022 kPa	1.5E+000 Pa	0.0138 kPa
103.43750 kPa	103.4376 kPa	0.00009 kPa	1.8E+000 Pa	0.0138 kPa

Medium used: Nitrogen  
Date Tested: 20170203