

## Certificate of Calibration Fluke Park Laboratory

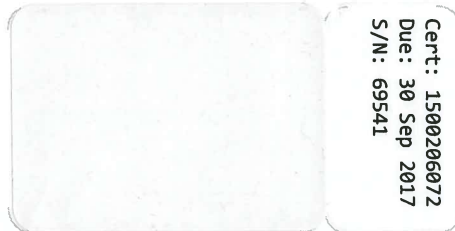
<b>Description:</b>	PRESSURE CONTROLLER/CALIBRATOR	<b>Certificate Number:</b>	1500206072
<b>Manufacturer:</b>	FLUKE CALIBRATION	<b>Date of Calibration:</b>	30 Sep 2016
<b>Model:</b>	7250i	<b>Date Due:</b>	30 Sep 2017
<b>Serial Number:</b>	69541	<b>Temperature:</b>	20.0 to 26.0 °C
<b>Status:</b>	AS-LEFT	<b>Relative Humidity:</b>	20 to 70 %RH
<b>Calibration:</b>	FULL	<b>Pressure:</b>	95 to 103 kPa
<b>Procedure:</b>	PCAL_H SECONDARY: ZCAL/ACAL VER : 20120624		
<b>Customer:</b>	MESA LABORATORIES INC LAKEWOOD, CO	<b>RMA/SO Number:</b>	31097162
<b>PO Number:</b>	PO-005244	<b>Customer ID:</b>	TE10704

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:**



*Ken Cowan*  
 \_\_\_\_\_  
 Approved Signatory  
**Ken Cowan**  
 Authorized Signatory

**Standards Used**

Description	Serial Number	Due-Date
DH INSTRUMENTS PC-7100/7600-50 KPA/KG PISTON-CYLINDER	1526	14-May-2017
FLUKE CALIBRATION 2468-758 PISTON-CYLINDER	TL1588	18-May-2019
FLUKE CALIBRATION MS-AMH-38 MASS SET	2170	23-Jun-2018
RUSKA 2468A-799 MASS SET	55617	29-May-2019
DH INSTRUMENTS PG7601 PISTON GAUGE BASE	197	28-Oct-2016
RUSKA 2455-11-006 PRT	56480	11-May-2017
GE SENSING 2456-801 PISTON GAUGE MONITOR	67607	12-May-2017
CHRISTIAN BECKER CLASS S TRIM MASS SET	P	06-Feb-2017
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	-0.000 kPa	-0.0003 kPa	5.9E-001 Pa	0.013 kPa
130.9117 kPa	130.906 kPa	-0.0052 kPa	2.5E+000 Pa	0.013 kPa
386.5980 kPa	386.594 kPa	-0.0040 kPa	7.1E+000 Pa	0.019 kPa
647.1111 kPa	647.109 kPa	-0.0021 kPa	1.2E+001 Pa	0.032 kPa
903.2176 kPa	903.210 kPa	-0.0074 kPa	1.6E+001 Pa	0.045 kPa
1034.0000 kPa	1033.998 kPa	-0.0023 kPa	1.9E+001 Pa	0.052 kPa
516.5140 kPa	516.522 kPa	0.0076 kPa	9.4E+000 Pa	0.026 kPa
260.5375 kPa	260.545 kPa	0.0079 kPa	4.8E+000 Pa	0.013 kPa
0.0000 kPa	0.007 kPa	0.0068 kPa	5.9E-001 Pa	0.013 kPa

Medium used: Nitrogen  
Date Tested: 20160930

Applied	Test Result	Error	Measurement Uncertainty	Specification
PRIMARY SENSOR VERIFICATION: NEGATIVE GAUGE				
0.0000 kPa	0.000 kPa	0.0000 kPa	5.8E-001 Pa	0.013 kPa
-24.9997 kPa	-25.001 kPa	-0.0009 kPa	6.9E-001 Pa	0.013 kPa
-50.0007 kPa	-50.002 kPa	-0.0013 kPa	9.5E-001 Pa	0.013 kPa
-75.0018 kPa	-75.005 kPa	-0.0036 kPa	1.3E+000 Pa	0.013 kPa
-99.9999 kPa	-100.006 kPa	-0.0063 kPa	1.6E+000 Pa	0.013 kPa
-50.0006 kPa	-50.003 kPa	-0.0021 kPa	9.5E-001 Pa	0.013 kPa
0.0000 kPa	-0.001 kPa	-0.0006 kPa	5.8E-001 Pa	0.013 kPa

Medium used: Air  
Date Tested: 20160930

Applied	Test Result	Error	Measurement Uncertainty	Specification
BAROMETRIC SENSOR VERIFICATION				
75.50506 kPa	75.5098 kPa	0.00474 kPa	1.6E+000 Pa	0.0138 kPa
90.54429 kPa	90.5483 kPa	0.00397 kPa	1.8E+000 Pa	0.0138 kPa
105.51465 kPa	105.5213 kPa	0.00666 kPa	2.1E+000 Pa	0.0138 kPa

Medium used: Nitrogen  
Date Tested: 20160930