

Certificate of Calibration Fluke Park Laboratory

Description:	PRESSURE CONTROLLER/CALIBRATOR	Certificate Number:	1500230615
Manufacturer:	FLUKE CALIBRATION	Date of Calibration:	27 Dec 2017
Model:	7250i	Date Due:	27 Dec 2018
Serial Number:	69713	Temperature:	20.0 to 26.0 °C
Status:	AS-LEFT	Relative Humidity:	10 to 70 %RH
		Pressure:	95 to 103 kPa
Calibration:	FULL	Issue Date:	27 Dec 2017
Procedure:	PCAL_H SECONDARY: ZCAL/ACAL VER : 20171031		
Customer:	MESA LABORATORIES INC LAKEWOOD, CO	RMA/SO Number:	31410471
PO Number:	PO-012045		

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

Tim Brady
 Authorized Signatory

Standards Used

Description	Serial Number	Due-Date
DH INSTRUMENTS PC-7100/7600-50 KPA/KG PISTON-CYLINDER	1526	19-May-2019
DH INSTRUMENTS PC-7607-5 KPA/KG PISTON-CYLINDER	410	19-Jun-2019
FLUKE CALIBRATION 2468-758 PISTON-CYLINDER	TL1588	18-May-2019
FLUKE CALIBRATION MS-AMH-38 MASS SET	2324	11-Jan-2018
FLUKE CALIBRATION MS-AMH-38 MASS SET	2814	14-Jun-2018
RUSKA 2468A-799 MASS SET	55617	29-May-2019
DH INSTRUMENTS PG7601 PISTON GAUGE BASE	328	12-Apr-2018
DH INSTRUMENTS PG7607 PISTON GAUGE BASE	169	06-Mar-2018
FLUKE CALIBRATION 2455-11-006 PRT	68654	27-Dec-2017
GE SENSING 2456-801 PISTON GAUGE MONITOR	67607	03-May-2018
CHRISTIAN BECKER CLASS S TRIM MASS SET	P	16-Feb-2021
FLUKE CALIBRATION 2456-LEM LABORATORY ENVIRONMENT MONITOR	56915	20-Apr-2018

Quality Manuals

This calibration has been completed in accordance with:

The Fluke Corporate Quality Manual, QSD 111.00, Revision 121, Dated July, 2017 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 ¹	From 25% to 100% FS: $\pm 0.005\%$ of Reading, Below 25% FS: $\pm 0.005\%$ of 25% FS
Negative Gauge Precision (Optional) ¹	Greater of $\pm 0.005\%$ of 25% FS or 0.00075 psi (0.005 kPa)
Stability ²	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	-0.0010 kPa	5.8E-001 Pa	0.013 kPa
130.3449 kPa	130.342 kPa	-0.0029 kPa	2.5E+000 Pa	0.013 kPa
386.3147 kPa	386.312 kPa	-0.0027 kPa	6.9E+000 Pa	0.019 kPa
647.0729 kPa	647.069 kPa	-0.0039 kPa	1.1E+001 Pa	0.032 kPa
903.1184 kPa	903.114 kPa	-0.0044 kPa	1.6E+001 Pa	0.045 kPa
1034.7540 kPa	1034.750 kPa	-0.0040 kPa	1.8E+001 Pa	0.052 kPa
516.1088 kPa	516.113 kPa	0.0042 kPa	9.1E+000 Pa	0.026 kPa
260.4788 kPa	260.484 kPa	0.0052 kPa	4.7E+000 Pa	0.013 kPa
0.0000 kPa	0.004 kPa	0.0040 kPa	5.8E-001 Pa	0.013 kPa

Medium used: Nitrogen

Date Tested: 20171226

PRIMARY SENSOR VERIFICATION: NEGATIVE GAUGE				
0.0000 kPa	0.000 kPa	0.0000 kPa	5.8E-001 Pa	0.013 kPa
-24.9929 kPa	-24.992 kPa	0.0009 kPa	6.4E-001 Pa	0.013 kPa
-50.0002 kPa	-49.999 kPa	0.0012 kPa	8.0E-001 Pa	0.013 kPa
-75.0106 kPa	-75.011 kPa	-0.0004 kPa	1.0E+000 Pa	0.013 kPa
-99.9945 kPa	-99.996 kPa	-0.0015 kPa	1.2E+000 Pa	0.013 kPa
-50.0001 kPa	-50.001 kPa	-0.0009 kPa	8.0E-001 Pa	0.013 kPa
0.0000 kPa	-0.001 kPa	-0.0010 kPa	5.8E-001 Pa	0.013 kPa

Medium used: Air

Date Tested: 20171227

BAROMETRIC SENSOR VERIFICATION				
74.82099 kPa	74.8154 kPa	-0.00559 kPa	1.4E+000 Pa	0.0138 kPa
89.86055 kPa	89.8554 kPa	-0.00515 kPa	1.6E+000 Pa	0.0138 kPa
103.44150 kPa	103.4374 kPa	-0.00410 kPa	1.8E+000 Pa	0.0138 kPa

Medium used: Nitrogen

Date Tested: 20171226