

TRANSCAT® CERTIFICATE OF CALIBRATION

Trust in every measure

Customer: ILLIANA INSTRUMENT
1831 Govert Drive
Scherverville, IN 46375

NVLAP®
NVLAP LAB CODE
200867-0

PO Number: 3609

Certificate/SO Number: 15-A7G5A-20-1 Revision 0

Manufacturer: Fluke Corporation
Model Number: 718-1G
Description: Pressure Calibrator
Serial Number: 3204121
ID: NONE

As-Found: In Tolerance
As-Left: In Tolerance

Calibration Date: June 01, 2016
Due Date: June 01, 2018

Calibrated To: Manufacturer Specification
Calibration Procedure: 1-AC47333-0

Transcat Calibration Laboratories have been audited and found in compliance with ISO/IEC 17025:2005. Accredited calibrations performed within the Lab's Scope of Accreditation are indicated by the presence of the Accrediting Body's Logo and Certificate Number on this Certificate of Calibration. Any measurements on an accredited calibration not covered by that Lab's Scope of Accreditation are listed in the notes section of the certificate. This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, SCC, NRC, CLAS, ANAB or any agency of the Federal Government. NVLAP, NIST, SCC, NRC, CLAS or ANAB do not guarantee the accuracy of an individual calibration by accredited laboratories.

Transcat calibrations, as applicable, are performed in compliance with the requirements of the Transcat Quality Manual Revision I, ISO 9001:2008, ANSI/NCCL Z540.1-1994 (R2002), and ISO 10012:2003. When specified contractually, the requirements of ISO TS16949:2009, 10CFR21, 10CFR50 App. B and ASME NQA-1:2012 are also covered. Complete records of work performed are maintained by Transcat and are available for inspection. Laboratory standards used in the performance of this calibration are shown on the Supplemental Report.

Transcat documents the traceability of measurements to the SI units through the National Institute of Standards and Technology (NIST), or the National Research Council of Canada (NRC), or other recognized national measurement institutes (NMI) that are signatories to the CIPM Mutual Recognition Arrangement, or accepted fundamental and/or natural physical constants, or by the use of specified methods, consensus standards or ratio type measurements. Documentation supporting traceability information is available for review at a Transcat facility. The measured quantity and the measurement uncertainty are required for further dissemination of traceability.

Uncertainties are reported with a coverage factor $k=2$, providing a level of confidence of approximately 95%. All calibrations have been performed using processes having a TUR of 4:1 or better (3:1 for mass calibrations), unless otherwise noted on the Supplemental Report. The Test Uncertainty Ratio (TUR) is calculated in accordance with NCCL International RP-18. For mass calibrations: Conventional mass referenced to 8.0 g/cm³.


The results in this report relate only to the item calibrated or tested, and the determination of in or out of tolerance is specific to the model/serial no. referenced above based on the tolerances shown on the supplemental report; these tolerances are either the original equipment manufacturer's (OEM's) warranted specifications or the client's requested specifications. Any number of factors can cause a unit to drift out of tolerance at any time following its calibration. Limitations on the uses of this instrument are detailed in the OEM's operating instructions. This certificate may not be reproduced except in full, without the written approval of Transcat. Additional information, if applicable may be included on separate report(s).


Notes:

Firmware version is 4.01.

Calibrated At:
2056 S. Alex Road
West Carrollton, OH 45449

Facility Responsible:
2056 S. Alex Road
West Carrollton, OH 45449
800-828-1470

Calibrated By:
 Digitally Signed By
Daniel Quigney
Date: June 01, 2016

Reviewed By:
 Digitally Signed By
Marc Rhoades for
Date: June 01, 2016

Daniel Quigney
Calibration Technician

Derek Atkinson
Lab Manager

Unit Barcode: 
900B0142298

Date Received: May 24, 2016

Customer: ILLIANA INSTRUMENT
PO Number: 3609

Certificate/SO Number: 15-A7G5A-20-1 Revision 0

Manufacturer: Fluke Corporation	Service Type: R9
Model Number: 718-1G	
Description: Pressure Calibrator	
Serial Number: 3204121	Calibration Date: Jun 01, 2016
ID: NONE	Date Due: Jun 01, 2018
	Calibration Procedure: 1-AC47333-0

Description	Setpoints	Accuracy	Low Limit	High Limit	As Found / As Left	Cal Process Uncertainty (k=2; ±)	Measurement Uncertainty (k=2; ±)	Units	TUR
Unit Firmware Version Test									
Unit Firmware Version Test			P	P	P				

The column labeled Cal Process Uncertainty (CPU) does not include the short term component of the UUT. The column labeled Measurement Uncertainty includes both CPU and the short term component of the UUT. TUR is calculated using CPU.

Note: Reported resolution of the UUT does not represent calibration uncertainty or accuracy of the UUT.

Revision 0

Field not applicable. (P = Pass, F = Fail)

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PO Number: 3609

Certificate/SO Number: 15-A7G5A-20-1 Revision 0

Description	Setpoints	Accuracy	Low Limit	High Limit	As Found / As Left	Cal Process Measurement		Units	TUR
						Uncertainty (k=2; ±)	Uncertainty (k=2; ±)		
Pressure Measure									
Pressure Measure	0.1000psi	±(0.05% FS)	0.0995	0.1005	0.1002 psi	7.9e-005	9.8e-005	psi	6.3 : 1
	0.2000psi	±(0.05% FS)	0.1995	0.2005	0.2002 psi	7.9e-005	9.8e-005	psi	6.3 : 1
	0.3000psi	±(0.05% FS)	0.2995	0.3005	0.3002 psi	7.9e-005	9.8e-005	psi	6.3 : 1
	0.4000psi	±(0.05% FS)	0.3995	0.4005	0.4002 psi	7.9e-005	9.8e-005	psi	6.3 : 1
	0.5000psi	±(0.05% FS)	0.4995	0.5005	0.5002 psi	7.9e-005	9.8e-005	psi	6.3 : 1
	0.6000psi	±(0.05% FS)	0.5995	0.6005	0.6002 psi	7.9e-005	9.8e-005	psi	6.3 : 1
	0.7000psi	±(0.05% FS)	0.6995	0.7005	0.7003 psi	7.9e-005	9.8e-005	psi	6.3 : 1
	0.8000psi	±(0.05% FS)	0.7995	0.8005	0.8003 psi	7.7e-005	9.8e-005	psi	6.5 : 1
	0.9000psi	±(0.05% FS)	0.8995	0.9005	0.9003 psi	8.6e-005	1.0e-004	psi	5.8 : 1
	1.0000psi	±(0.05% FS)	0.9995	1.0005	1.0001 psi	9.5e-005	1.1e-004	psi	5.2 : 1
	-0.2000psi	±(0.05% FS)	-0.2005	-0.1995	-0.2001 psi	7.9e-005	9.8e-005	psi	6.3 : 1
	-0.4000psi	±(0.05% FS)	-0.4005	-0.3995	-0.4003 psi	7.9e-005	9.8e-005	psi	6.3 : 1
	-0.6000psi	±(0.05% FS)	-0.6005	-0.5995	-0.6002 psi	7.9e-005	9.8e-005	psi	6.3 : 1
	-0.8000psi	±(0.05% FS)	-0.8005	-0.7995	-0.7999 psi	7.7e-005	9.8e-005	psi	6.5 : 1
	-1.0000psi	±(0.05% FS)	-1.0005	-0.9995	-1.0000 psi	9.5e-005	1.1e-004	psi	5.2 : 1
Leak Test									
Leak Rate per Minute - 718-1G	-1.000psi	≤ (0.005 psi)	0.000	0.005	0.001 psi				
	1.000psi	≤ (0.005 psi)	0.000	0.005	0.000 psi				

The column labeled Cal Process Uncertainty (CPU) does not include the short term component of the UUT. The column labeled Measurement Uncertainty includes both CPU and the short term component of the UUT. TUR is calculated using CPU.

Note: Reported resolution of the UUT does not represent calibration uncertainty or accuracy of the UUT.

TRANSCAT[®] SUPPLEMENTAL REPORT

Trust in every measure CALIBRATION LAB DATA AS FOUND / AS LEFT

Customer: ILLIANA INSTRUMENT
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Certificate/SO Number: 15-A7G5A-20-1 Revision 0

Description	Setpoints	Accuracy	Low Limit	High Limit	As Found / As Left	Cal Process Measurement		Units	TUR
						○ Uncertainty (k=2; ±)	T		
DC Current Measure									
	4.000mA	±(0.015% R _{dg} + 2 LSD)	3.997	4.003	4.000 mA	1.6e-004	2.4e-003	mA	18.7 : 1
	12.000mA	±(0.015% R _{dg} + 2 LSD)	11.996	12.004	11.999 mA	1.1e-003	2.9e-003	mA	3.7 : 1
	24.000mA	±(0.015% R _{dg} + 2 LSD)	23.994	24.006	23.999 mA	1.6e-003	3.1e-003	mA	3.8 : 1

Function Check	Pass/Fail	Pass/Fail	Pass/Fail	Pass/Fail	Pass/Fail
mA Loop Power Verification	P	P	P	P	P
Sensor Jack Verification	P	P	P	P	P
Display Verification	P	P	P	P	P

As Found and As Left Data recorded on June 01, 2016

Temperature 70.9°F / 21.6°C Relative Humidity 50% Temp/RH Asset M1318

Asset	Manufacturer	Model	Description	Cal Date	Due Date	Traceability Numbers
31197	Filuke Corporation	5500A-SC300	Multifunction Calibrator, w/Scope Option	Nov 25, 2015	Aug 31, 2016	5-831197-20-2
M1078	General Resistance	RDS77A	Resistance Decade Box	Dec 18, 2015	Dec 31, 2016	5-8M1078-19-1
M1186	DH Instruments	PPC4-ui	Pressure Controller	Jan 04, 2016	Jul 31, 2016	5-8M1186-45-1
T0071	Agilent/HP/Agilent Tech	3458A	Digital Multimeter, 8.5 Digit	Sep 29, 2015	Sep 30, 2016	5-8T0071-21-1

Remarks
 Firmware version is 4.01.