

Customer: ILLIANA INSTRUMENT

1831 Govert Drive Schererville, IN 46375

PO Number: 3605

200867-0

Certificate/SO Number: 15-A7C3O-20-1 Revision 0

Manufacturer: Fluke Corporation

Model Number: 700P24

Description: Pressure Module, Differential Serial Number: 80002407

ID: 1230

As-Found: In Tolerance

As-Left: In Tolerance

Calibration Date: May 16, 2016

Due Date: May 16, 2018

Calibrated To: Manufacturer Specification

Calibration Procedure: 1-AC06089-7

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/NCSL 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 NCSL International RP-18. For mass calibrations: Conventional mass referenced to 8.0 g/cm².

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 fulf, without the written approval of Transcat. Additional information, if applicable may be included on separate report(s).

Notes:

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: May 16, 2016

Daniel Quigney Calibration Technician Reviewed By:

Digitally Signed By Marc Rhoades for

Date: May 17, 2016

Derek Atkinson Lab Manager

Customer Number: 1-520763-000

F0013R29 1/4/16

Unit Barcode:

Date Received: May 12, 2016

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SUPPLEMENTAL REPORT

CALIBRATION LAB DATA AS FOUND / AS LEFT

Customer: ILLIANA INSTRUMENT

PO Number: 3605

Certificate/SO Number: 15-A7C3O-20-1 Revision 0

Manufacturer: Fluke Corporation Service Type: R9

Model Number: 700P24

Description: Pressure Module, Differential

Serial Number: 80002407 Calibration Date: May 16, 2016

ID: 1230 Date Due: May 16, 2018

Calibration Procedure: 1-AC06089-7

Description	Setpoints	Accuracy	Low Limit	High Limit	As Found / As Left	O Cal Proces O Uncertaint T (k=2; ±)	s Measurement y Uncertainty (k=2; ±)	Units	TUR
Pressure Measure		•							
Linearity High Port	0.000psi	±(0.05% Span)	-0.008	0.008	0.000 psi				
	1.500psi	±(0.05% Span)	1.492	1.508	1.500 psi	1.4e-004	8.8e-004	psi	57.0 : 1
	3.000psi	±(0.05% Span)	2.992	3.008	3.000 psi	2.8e-004	9.1e-004	psi	29.0 : 1
	4.500psi	±(0.05% Span)	4.492	4.508	4.500 psi	4.1e-004	9.6e-004	psi	19.5 : 1
	6.000psi	±(0.05% Span)	5.992	6.008	6.000 psi	5.5e-004	1.0e-003	psi	14.7 : 1
	7.500psi	±(0.05% Span)	7.492	7.508	7.500 psi	6.8e-004	1.1e-003	psi	11.8 : 1
	9.000psi	±(0.05% Span)	8.992	9.008	9.000 psi	8,2e-004	1.2e-003	psi	9.8 : 1
	10.500psi	±(0.05% Span)	10.492	10.508	10.499 psi	9.5e-004	1.3e-003	psi	8.4 : 1
	12.000psi	±(0.05% Span)	11.992	12.008	11.999 psi	1.1e-003	1.4e-003	psi	7.4 : 1
	13,500psi	±(0.05% Span)	13.492	13.508	13.499 psi	1.2e-003	1.5e-003	psi	6.6 : 1
	15.000psi	±(0.05% Span)	14.992	15.008	15.000 psi	1.4e-003	1.6e-003	psi	5.9 : 1
Hysteresis	9.000psi	±(0.05% Span)	8.992	9.008	9.000 psi	8.2e-004	1.2e-003	psi	9.8:1
	7.500psi	±(0.05% Span)	7.492	7.508	7.500 psi	6.8e-004	1.1e-003	psi	11.8 : 1
	6.000psi	±(0.05% Span)	5.992	6.008	6.000 psi	5.5e-004	1.0e-003	psi	14.7 : 1

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

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



CALIBRATION LAB DATA AS FOUND / AS LEFT

Customer: ILLIANA INSTRUMENT

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Cal Process Measurement

Uncertainty Uncertainty TUR Units Description Setpoints Accuracy Low Limit High Limit As Found / As Left $(k=2; \pm)$ (k=2; ±) Pressure Measure ±(0.05% Span) -0.008 800.0 0.001 psi Differential Measurement 0,000psi

As Found and As Left Data recorded on May 16, 2016

Temperature 72.1°F / 22.3°C Relative Humidity 31% Temp/RH Asset M1324

Manufacturer Model Description Cal Date **Due Date** Traceability Numbers **Asset** 5-&M1186-45-1 PPC4-ui Pressure Controller Jan 04, 2016 Jul 31, 2016 M1186 **DH** Instruments

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

F0177R2 03/22/16