

Calibration Report: Pressure Transducer

S/N: P2110015

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Summary

Calibration Date: 12 July 2004

Next Calibration Date: 12 July 2005

A collection, analysis and calibration of data from Vaisala Pressure Transducer, S/N:P2110015 has been completed. The calibration was performed by the calibration laboratory, Wyle Laboratories. This data was collected by Wyle Laboratories on July 12, 2004.

MODEL : PTB101B

SERIAL NUMBER : P2110015

The test data presented in data table format show the transducers deviation in volts and percent transducer deviation of full scale (FS). Note: Units in millibars per user's request.

APPLICATION: Add corrections to measurements per post calibration table.

REPORT OF CALIBRATION-WYLE LABORATORIES

STATIC CALIBRATION OF PRESSURE TRANSDUCER

MANUFACTURER	VAILASA	ECN	A022385	DATE	7/12/04
MODEL NUMBER	PTB101B	SER #	P2110015	CAL BY	W2661
INPUT RANGE	600-1060 hPaa	WO #	478437	ORDER #	WYLE 3!

CALIBRATION NO. 1

REFERENCE STANDARD TORR X1	REF STD CORRECTED hPa X	^{1st} TRANSDUCER OUTPUT VOLTS Y1	LEAST SQUARES STRAIGHT LINE VOLTS Y	TRANSDUCER DEVIATION VOLTS (Y1-Y)	TRANSDUCER DEVIATION % OF FS
457.54	610.00	0.0810	0.0820	-0.0010	-0.041
525.04	699.99	0.5708	0.5701	0.0007	0.029
592.55	790.00	1.0591	1.0583	0.0008	0.034
660.05	879.99	1.5464	1.5464	0.0000	0.001
727.56	970.00	2.0342	2.0345	-0.0003	-0.014
795.07	1060.00	2.5224	2.5227	-0.0003	-0.013
727.56	970.00	2.0341	2.0345	-0.0004	-0.018
660.05	879.99	1.5464	1.5464	0.0000	0.001
592.55	790.00	1.0591	1.0583	0.0008	0.034
525.04	699.99	0.5706	0.5701	0.0005	0.020
457.54	610.00	0.0812	0.0820	-0.0008	-0.033

ZERO BALANCE	-132.196 % OF FS	CONVERSION FACTOR	1.333220
MAX DEVIATION	+/- 0.041 % OF FS	AMBIENT TEMPERATURE	21.2 DEG C.
HYSTERESIS	+/- 0.004 % OF FS	AMBIENT HUMIDITY	43 PERCENT
SENSITIVITY	0.00542 V/hPa	AMBIENT PRESSURE	14.708 PSIA
STD DEVIATION	0.00068 VOLTS	OUTPUT AT BAROMETRIC PRESSURE	= 2.2705 VDC
INPUT VOLTAGE	12.000 VOLTS DC		
INSTRUMENT TEMPERATURE	21.2 DEG C.		

*COMBINED NONLINEARITY AND HYSTERESIS

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AUX EQUIP	FLUKE DVM, MODEL NO 8842A, GFE NO. 5108
AUX EQUIP	H.P. POWER SUPPLY MODEL NO. 6102A, GFE NO. 2126
REF STD	RUSKA QUARTZ PRESSURE STANDARD, 0-1000 TORR
REF STD	S/N 27607, GFE# 3925, CALIBRATION DUE 2/3/05
MFR SPEC	COMBINED NONLINEARITY AND HYSTERESIS = 0.11 % OF FS

SUMMARY OF CALIBRATION DATA

EXCITATION VOLTAGE 12.000 VOLTS DC BAROMETRIC PRESSURE 14.708 PSIA
 INSULATION RESIST 1000 MOHM(50 VDC) OUTPUT AT BAROMETRIC PRESSURE = 2.2705 V

OUTPUT AT 610.00 hPa	=	0.0810 VOLTS
OUTPUT AT 1060.00 hPa	=	2.5224 VOLTS
OUTPUT AT 610.00 hPa	=	0.0812 VOLTS

: CAL :	INST :	ZERO INTERCEPT :	SENSITIVITY :	ZERO :	COMBINED :	HYSTERESIS :
: NO :	TEMP :	(X) :	(Y) :	(X/Y) :	(Y/X) :	BALANCE:NONLIN+HYST :
:	DEG C :	hPa :	V :	:	:	% OF FS: % OF FS : % OF FS :
:	:	:	:	:	:	:
: 1 :	21.2 :	594.882 :	-3.2265 :	184.3734 :	0.00542 :	-132.20: +/- 0.041 : +/- 0.004 :

Linear fit of Vaisala Barometric Pressure Sensor (Model: PTB101B, S/N: P2110015)

