

# Report: Pressure Transducer s/n 592635

## ECN: A022415

24 July 1999

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### SUMMARY

Calibration date: 24 July 1999. Next calibration due: 24 July 2001.

A collection, analysis and calibration of data from a Pressure Transducer, s/n 592635, has been completed. The calibration was performed by the calibration laboratory, Wyle Laboratories. These data were collected by Wyle Laboratories on 24 July 1999.

Model : PTA427

Serial Number : 592635

The test data presented in data table format show the transducer deviation in volts and percent transducer deviation of 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.	A022415	DATE	7/24/99
MODEL NUMBER	PTA427	SER. NO.	592635	CAL BY	W2661
INPUT RANGE	800-1060 HPA	W.O. NO.	439278	ORDER #	

**WYLE 3**

CALIBRATION PRIOR TO ADJUSTMENT

REFERENCE STANDARD TORR X1	REF STD CORRECTED MB X	TRANSDUCER OUTPUT VOLTS Y1	LEAST SQUARES STRAIGHT LINE VOLTS Y	TRANSDUCER DEVIATION VOLTS (Y1-Y)	TRANSDUCER DEVIATION % OF FS
600.05	800.00	0.0227	0.0109	0.0118	0.238
639.05	851.99	0.9954	1.0063	-0.0109	-0.220
678.06	904.00	1.9959	2.0021	-0.0062	-0.124
717.06	956.00	2.9973	2.9975	-0.0002	-0.005
756.06	1007.99	3.9965	3.9930	0.0035	0.070
795.07	1060.00	4.9931	4.9887	0.0044	0.088
756.06	1007.99	3.9962	3.9930	0.0032	0.064
717.06	956.00	2.9970	2.9975	-0.0005	-0.011
678.06	904.00	1.9960	2.0021	-0.0061	-0.122
639.05	851.99	0.9954	1.0063	-0.0109	-0.220
600.05	800.00	0.0228	0.0109	0.0119	0.240

ZERO BALANCE	-307.468 % OF FS	CONVERSION FACTOR	1.333220
MAX DEVIATION	+/- 0.240 % OF FS	AMBIENT TEMPERATURE	22.4 DEG C.
HYSTERESIS	+/- 0.003 % OF FS	AMBIENT HUMIDITY	53 PERCENT
SENSITIVITY	0.019145 VOLT/MB	AMBIENT PRESSURE	14.670 PSIA
STD DEVIATION	0.00842 VOLTS	OUTPUT AT BAROMETRIC PRESSURE =	4.048 V
INPUT VOLTAGE	24.000 VOLTS DC		
INSTRUMENT TEMPERATURE	22.4 DEG C.		

\*COMBINED NONLINEARITY AND HYSTERESIS

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**WYLE 3**

AUX EQUIP	FLUKE DVM, MODEL # 8840A, 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 4/14/00
NOTE	UNITS IN MILLIBARS AS PER USER'S REQUEST
MFR SPEC	COMBINED NONLINEARITY AND HYSTERESIS = 0.11 % OF FS

SUMMARY OF CALIBRATION DATA

EXCITATION VOLTAGE	24.000 VOLTS DC	BAROMETRIC PRESSURE	14.670 PSIA
INPUT PINS	+RED/-BLK	OUTPUT AT BAROMETRIC PRESSURE =	4.048 V
OUTPUT PINS	+BRN/-SHIELD		

OUTPUT AT	800.00	MB	=	0.0227	VOLTS
OUTPUT AT	1060.00	MB	=	4.9931	VOLTS
OUTPUT AT	800.00	MB	=	0.0228	VOLTS

CALIBRATION PRIOR TO ADJUSTMENT

INSTRUMENT TEMPERATURE	22.4 DEG C.
ZERO INTERCEPT (X)	799.431396 MB
ZERO INTERCEPT (Y)	-15.305375 VOLTS.
SENSITIVITY (X/Y)	52.232067 MB/VOLT.
SENSITIVITY (Y/X)	0.019145 VOLT/MB
ZERO BALANCE	-307.468 PERCENT OF FS.
COMBINED NONLIN AND HYST	0.240 PERCENT OF FS.
HYSTERESIS	0.003 PERCENT OF FS.