

Calibration Report: Pressure Transmitter S/N: S4620032

8 March 2012

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Summary

Calibration date: 8 Mar 2012

Next Calibration date: 8 Mar 2013

A collection, analysis and calibration of data from a Pressure Transmitter, S/N: S4620032, has been completed. The calibration was performed by Vaisala, Inc. These data were collected by Vaisala on 8 March 2012.

Model: PTB101B (Vaisala)
Serial Number: S4620032

The test data presented in table format show the sensor to be extremely stable. The before and after adjustment calibration were basically identical. This calibration also included analog output (in Volts) and were exactly the same before and after adjustment. The accuracy for this sensor is +/- 0.5mb at 20C. +/- 1.5mb at 0-40C.

The following pages provide more detail into the calibration process and results.

Application: Standard Campbell data logger program for Vaisala pressure transmitter.

CALIBRATION CERTIFICATE

before adjustment

Customer SSAI
Instrument PTB101B Analog barometer
Serial number S4620032
Manufacturer Vaisala Oyj, Finland
Calibration date 8th March 2012
Test procedure doc210609a

This instrument has been calibrated against a Vaisala PTB220 factory working standard which has been calibrated against a Ruska 2465 pressure balance traceable to the National Institute of Standards and Technology (NIST, USA) at Vaisala Measurement Standards Laboratory (MSL). Vaisala MSL has been accredited by the Finnish Accreditation System (FINAS) according to ISO/IEC 17025 standard.

Calibration results

Reference pressure hPa	Observed pressure hPa	Correction* hPa	Uncertainty** hPa	Analog Output V
619.8	619.9	-0.1	± 0.15	0.10815
699.9	700.2	-0.3	± 0.15	0.54457
799.9	800.2	-0.3	± 0.15	1.08804
850.0	850.2	-0.2	± 0.15	1.35978
900.0	900.1	-0.1	± 0.15	1.63098
950.0	950.0	0.0	± 0.15	1.90217
1000.0	1000.0	0.0	± 0.15	2.17391
1060.2	1060.2	0.0	± 0.15	2.50109

*To obtain the true pressure, add the correction to the barometer reading. Interpolated corrections may be used at intermediate readings of the scale of the barometer.

**The calibration uncertainty given at 95 % confidence level, k = 2

Equipment used in calibration

Type	Serial number	Calibration date	Certificate number
Vaisala PTB220	X2550004	2012-02-03	020312-B- X2550004-P
Vaisala PTB220	X3710015	2012-02-02	020212-B- X3710015-P
34970A	MY44052432	2011-06-21	516173

Ambient conditions / Humidity 25 ± 5 %RH, Temperature 24 ± 1 °C, Pressure 1018 ± 1 hPa

Matthew Nocivelli

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CALIBRATION CERTIFICATE

after adjustment

Customer SSAI
Instrument PTB101B Analog barometer
Serial number S4620032
Manufacturer Vaisala Oyj, Finland
Calibration date 8th March 2012
Test procedure doc210609a

This instrument has been calibrated against a Vaisala PTB220 factory working standard which has been calibrated against a Ruska 2465 pressure balance traceable to the National Institute of Standards and Technology (NIST, USA) at Vaisala Measurement Standards Laboratory (MSL). Vaisala MSL has been accredited by the Finnish Accreditation System (FINAS) according to ISO/IEC 17025 standard.

At the time of shipment, the instrument described above met its operating specifications.

Calibration results

Reference pressure hPa	Observed pressure hPa	Correction* hPa	Uncertainty** hPa	Analog Output V
619.9	620.0	-0.1	± 0.15	0.10815
699.9	700.2	-0.3	± 0.15	0.54457
800.0	800.3	-0.3	± 0.15	1.08804
850.0	850.2	-0.2	± 0.15	1.35978
900.1	900.2	-0.1	± 0.15	1.63098
950.1	950.1	0.0	± 0.15	1.90217
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