

Calibration Report: Pressure Transmitter S/N: S4620032

Bryan Fabbri
Science Systems and Applications, Inc.
Hampton, Virginia

Summary

Calibration date: 3 June 2009

Next Calibration date: 3 June 2010

A collection, analysis and calibration of data from a Pressure Transmitter, S/N: S4620032, has been completed. The calibration was performed by Vaisala, Inc., the manufacturer of the instrument. These data were collected by Vaisala on 3 June 2009.

Model: PTB101B (Vaisala)
Serial Number: S4620032

The test data presented in data table format display the pressure transmitter, before adjustment, to be out of specification at several lower pressure references and right at specification at the higher pressure references. After adjustment, the observed pressure compared to the reference pressure readings were within specifications. The accuracy for these pressure transmitters is +/- 0.5mb.

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 SCIENCE SYSTEMS
Instrument PTB101B Analog barometer
Serial number S4620032
Manufacturer Vaisala Oyj, Finland
Calibration date 3rd June 2009
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
619.9	620.4	-0.5	± 0.15
700.0	700.7	-0.7	± 0.15
800.1	800.8	-0.7	± 0.15
850.1	850.8	-0.7	± 0.15
900.2	900.8	-0.6	± 0.15
950.2	950.7	-0.5	± 0.15
1000.1	1000.6	-0.5	± 0.15
1060.2	1060.7	-0.5	± 0.15

*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	X1260001	2009-03-31	K008-S00615
Vaisala PTB220	X3710015	2009-03-18	K008-S00618
AT 34970A	US37047279	2008-03-03	1000508042

Ambient conditions / Humidity $41 \pm 5\%$ RH, Temperature $23 \pm 1\text{ }^{\circ}\text{C}$, Pressure $1014 \pm 1\text{ hPa}$

For Vaisala



Nicholas Paoletta

This report shall not be reproduced except in full, without the written approval of Vaisala.

doc210635b



CALIBRATION CERTIFICATE

after adjustment

Customer SCIENCE SYSTEMS
Instrument PTB101B Analog barometer
Serial number S4620032
Manufacturer Vaisala Oyj, Finland
Calibration date 3rd June 2009
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
620.0	620.1	-0.1	± 0.15
700.1	700.4	-0.3	± 0.15
800.1	800.4	-0.3	± 0.15
850.2	850.4	-0.2	± 0.15
900.2	900.3	-0.1	± 0.15
950.1	950.1	0.0	± 0.15
1000.1	1000.1	0.0	± 0.15
1060.2	1060.3	-0.1	± 0.15

*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	X1260001	2009-03-31	K008-S00615
Vaisala PTB220	X3710015	2009-03-18	K008-S00618
AT 34970A	US37047279	2008-03-03	1000508042

Ambient conditions / Humidity $41 \pm 5\%$ RH, Temperature 23 ± 1 °C, Pressure 1014 ± 1 hPa

For Vaisala

Nicholas Paoletta

This report shall not be reproduced except in full, without the written approval of Vaisala.

doc210635b