VAISALA

MEASUREMENT STANDARDS LABORATORY
ACCREDITED CALIBRATION LABORATORY

FINAS
Finnish Accreditation Service
K008 (EN ISO/IEC 17025)

CERTIFICATE OF CALIBRATION no K008-SAMPLE

Customer	VAISALA OYj Vanha Nurmijärventie 21 01670 VANTAA FINLAND
Item	Digital Barometer
Manufacturer	Vaisala Oyj
Model	PTB330
Serial number	GXXXXXXX
Instrument number	
Calibration performed	October 2, 2017
Date	October 6, 2017
Signature	Ilkka Kotamäki Technical Manager

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Documents attached

NOTES Sample certificate.

Conditions when received Reported in Equipment Database.

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CONFIGURATION

The barometer's configuration, settings and coefficients were read from the memory.
The calibration is valid only with configuration and settings given in table 1.

Table 1. Configuration and settings

Setups read from the memory		Instrument configuration	
Software version	PTB330 / 1.10	Serial number	GXXXXXX
MPCP1	ON	MODULE TYPE	Serial number
MPCP2	ON		
MPCP3	ON	BARO-1 1 serial	G1XXXXXX
LCP1	ON	BARO-1 2 serial	G2XXXXXX
LCP2	ON	BARO-1 3 serial	G3XXXXXX
LCP3	ON		

PRESSURE CALIBRATION

The above described Digital Barometer was calibrated from 500 to 1100 hPa absolute pressure in the Measurement Standards Laboratory (MSL) of Vaisala Oyj on October 2, 2017.
The pressure readings of the barometer were compared to the values of the reference.
The measurement results were obtained from the measured values or the results were calculated from the measured values by using adjustment coefficients.
Before measurements the barometer was allowed to stabilize to the conditions of the laboratory for at least 1 hour with power supply on.
The used pressure transmitting medium was air and/or nitrogen.

REFERENCES USED DURING PRESSURE CALIBRATION

DHI PPC3 Pressure Controller/Calibrator, sno 722, due date 2018-02.

TRACEABILITY

The measurement results are traceable to the international system of units (SI) through national metrology institutes (NIST in USA or equivalent) or accredited calibration laboratories.

CALIBRATION PROCEDURE

DOC236240

UNCERTAINTY

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k = 2, which for a normal distribution corresponds to a coverage probability of approximately 95 %. The standard uncertainty of measurement has been determined in accordance with EA Publication EA-4/02.
- The uncertainty is calculated from the uncertainties caused from the reference equipment, calibration process and unit under calibration (UUC) including resolution, stability (short term), linearity, repeatability, hysteresis and rounding of the final results.
- The measurement results and uncertainty may be interpolated between measurement points.
The measurement uncertainty represents the situation at the time and conditions of calibration.
When using the UUC at different conditions and at different time the effect of the conditions and stability of the UUC shall be evaluated separately.

CALIBRATION CONDITIONS

Temperature	23 °C ± 3 °C
Humidity	35 %rh ± 25 %rh

FINAL RESULTS

The reference and the reading values presented in table(s) are averages of ten independent observations.
The corrections in table(s) shall be added algebraically to the readings.
The results are averages of the measured two pressure cycles.

Table 2. Final results, P

Reference	As found		As left		Uncertainty
	Reading	Correction	Reading	Correction	
[hPa]	[hPa]	[hPa]	[hPa]	[hPa]	[hPa]
1099,99	1100,01	-0,02	1100,00	-0,01	0,04
1050,00	1050,01	-0,01	1050,00	0,00	0,04
1000,00	1000,01	-0,01	1000,00	0,00	0,04
950,01	950,02	-0,01	950,01	0,00	0,04
850,04	850,04	0,00	850,03	0,01	0,04
750,06	750,06	0,00	750,05	0,01	0,04
650,08	650,08	0,00	650,08	0,00	0,04
550,12	550,13	-0,01	550,12	0,00	0,04
500,09	500,11	-0,02	500,10	-0,01	0,04

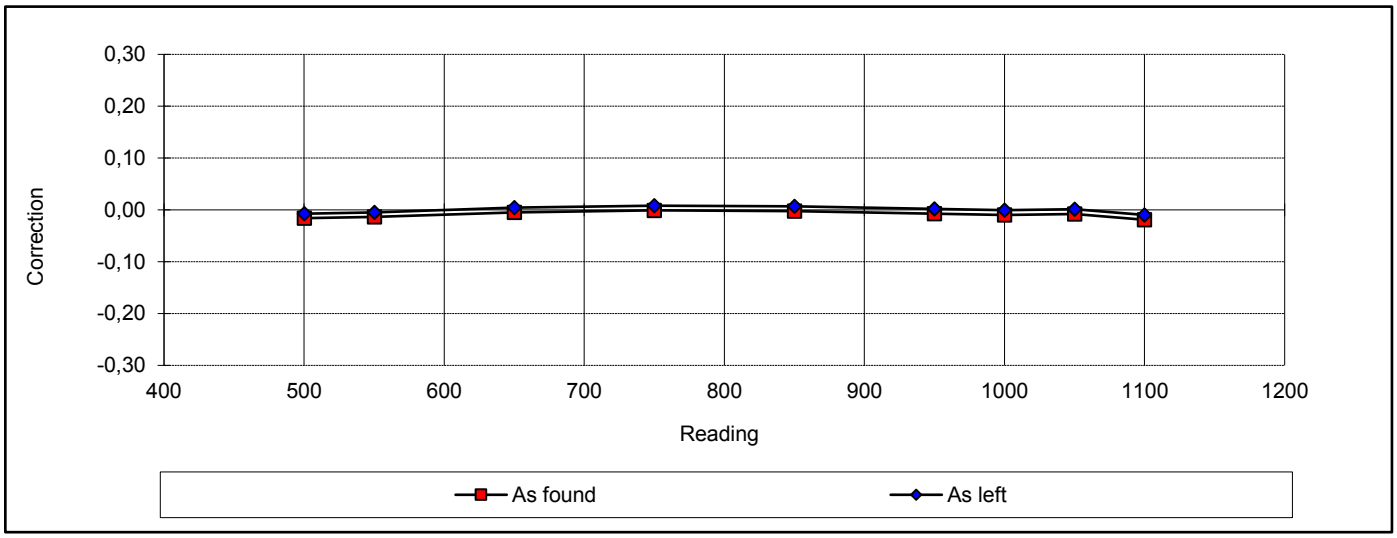

Figure 1. Final results, P [hPa]