

CALIBRATION CERTIFICATE

Instrument Humidity and Temperature Probe HMP155
Serial number L0550630
Manufacturer Vaisala Oyj, Finland
Calibration date 2nd March 2018

The above instrument was calibrated by comparing the readings of the instrument to working standards of the manufacturer. The reference humidity was calculated from dewpoint temperature and temperature readings with the exception of the driest condition that was measured as relative humidity. Dewpoint temperature was measured with a 373 LHX dewpoint meter. Temperature and relative humidity were measured with two factory working standards. At the time of shipment, the instrument described above met its operating specifications.

The 373 LHX dewpoint meter has been calibrated at The measurement results are traceable to the international system of units (SI) through national metrology institutes (NIST USA, MIKES Finland, Or equivalent) or ISO/IEC 17025 accredited calibration laboratories.. The temperature readings of the factory working standards have been calibrated at an ISO/IEC 17025 accredited calibration laboratory (FINAS), Vaisala Measurement Standards Laboratory (MSL) by using MSL working standards traceable to NIST. The relative humidity readings of the factory working standards have been calibrated at the Vaisala factory by using a 373 LHX dewpoint meter.

Humidity calibration results

Reference humidity	Reference temperature	Observed humidity	Observed probe temperature	Additional probe temperature	Humidity difference	Permissible difference
%RH	°C	%RH	°C	°C	%RH	%RH
+ 0.1	+ 22.02	+ 0.1	-	+ 22.03	0.0	±1.0
+ 12.5	+ 22.00	+ 12.5	-	+ 22.01	0.0	± 1.0
+ 33.3	+ 22.00	+ 33.1	-	+ 22.01	- 0.2	± 1.0
+ 54.1	+ 22.02	+ 54.0	-	+ 22.02	- 0.1	± 1.0
+ 74.8	+ 22.03	+ 74.8	-	+ 22.04	0.0	± 1.0
+ 94.6	+ 22.05	+ 94.6	-	+ 22.04	0.0	± 1.7

Temperature calibration results

Reference temperature	Observed probe temperature	Temperature difference	Additional probe temperature	Temperature difference	Permissible difference
°C	°C	°C	°C	°C	°C
+ 22.03	-	-	+ 22.04	+ 0.01	± 0.10

Equipment used in calibration

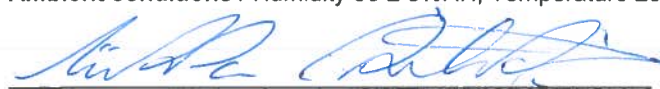
Type	Serial number	Calibration date	Certificate number
373 LHX	10-0117	2017-11-15	M-17H038
PTU303 / T	H0730006	2017-11-01	K008-A02530
HMT337	D2350020	2017-11-06	K008-A02527
PTU303 / RH	H0730006	2018-02-05	H45-18061001
HMT337 / RH	D2350020	2018-02-05	H45-18061002

Uncertainties (95 % confidence level, k=2)

Humidity ± 0.6%RH @ 0...40%RH, ± 1.0%RH @ 40...97%RH

Temperature ± 0.10 °C.

Ambient conditions / Humidity 30 ± 5%RH, Temperature 23 ± 1 °C, Pressure 1015 ± 1 hPa.


 Technician

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VAISALA

Handled by
Huttunen Antti (Antti)

Service Report

Date
05-MAR-2018

SR#
1213131

Buyer's reference
4070199767

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Consignee

STFC/Chilbolton Observatory
SFC -CHIL, Chillbolton Observatory
Drove Road, Chilbolton
STOCKBRIDGE
SO20 6BJ
United Kingdom

Invoicing address(if not consignee)

STFC/Chilbolton Observatory
STFC - Science & Technology Facilities
Council
C/O UK Shared Business Service Ltd, Polar
House,
North Start Avenue
SWINDON
SN2 1UH
United Kingdom

Service Order	Description	Serial number - Lot Number	Quantity
502094	HMP155 Humidity + Temperature Probe --REASON FOR RETURN-- Repair and standard calibration. 6 points, 0, 12.5, 33, 54, 75, 95% RH and temperature calibration at ambient (HMP155REP-RHCALFLEX). --PROBLEM(S) FOUND -- No readings due to faulty composite sensor. Filter dirty. --ACTION(S) TAKEN-- Composite sensor and filter replaced. Operation tested, adjustments made and unit was calibrated. Calibration certificate number H45-18090048 (after adjustment) issued.	L0550630	1

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