

Build and Calibration Record

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Instrument type	miniSVS - SV & T
Serial number	30461
Path Length, mm	50
Baud rate set ex factory	19200

Calibration History:	Certificate	Date
	2020-002	21.01.2020
	2021-030	26.11.2021
	2023-050	12.12.2023

[illegible]

Instrument Serial Number	30461
Transducer Type. mm	50
Transducer Ser No	79945
PCB Part No	0650505C
PCB Ser No	38946
Processor Firmware Version	0650713B5
FPGA Firmware Version	0650714C
Certificate Number	2023-050

Calibration Equipment used		
Instrument	Type	Serial No
Temp Bridge	ASL F17A	1204-2/3/8
PRT	Rosemount 162CE	4956

Stage 1: First order fit

Temp °C90	SoS from Bilaniuk & Wong m/s	Measured ToF nsec*100	Coefficients	Calc SoS from coefficients m/s	Error (Calc - True) m/s	Acceptable Error m/s	Pass/Fail
2.0286	1412.372	7455014	3.823240E+05	1412.372	0.000	±0.001	Pass
15.0844	1466.238	7195178	1.001074E+07	1466.238	0.000	±0.001	Pass

Stage 2: Enter calibration string

#022;10010743;382324

Stage 3: Check point

Temp °C90	Actual SoS m/s	Measured SoS m/s	Error SoS Reading Actual m/s	Acceptable Error m/s	Pass/Fail
15.0854	1466.242	1466.241	-0.001	±0.005	Pass

Name:	M. Schweichel
Date:	12.12.2023
Signature:	M. Schweichel

Sensor Calibration Record

Temperature

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Instrument Serial Number	30461
Sensor Type	PRT
Sensor Serial Number	2163
Sensor Range	-5°C to +35°C
Certificate Number	2023-050

Stage 1: Obtain Calibration data and Polynomial fit

Counts nnnn	Bath temp °C [IPTS 90]	Polynomial fit for raw data		Polynomial calculations		Acceptable Error	Pass/Fail
		Order Parameter	2 Value	Calc Temp °C [IPTS 90]	Temp Error °C [IPTS 90]		
7220452	2.016	a0	-2.562634E+02	2.016	0.000	±0.01	Pass
7661045	17.843	a1	3.562724E-05	17.843	0.000	±0.01	Pass
8131046	34.735	a2	1.984031E-14	34.735	0.000	±0.01	Pass

Stage 2: Enter calibration string: #087;1.984031E-14;3.562724E-05;-2.562634E+02

Stage 3: Post Calibration Check

Reading °C [IPTS 90]	Bath temp °C [IPTS 90]	Error [Reading- Actual] °C [IPTS 90]	Acceptable Error	Pass/Fail
2.016	2.016	0.000	±0.01	Pass

Calibration Equipment used

Instrument	Type	Serial No
Temp Bridge	ASL F17A	1204-2/3/8
PRT	Rosemount 162CE	1736

As Received Check

Existing Cal #088		
-7.450000e-15;3.601267e-5;-2.575911e2		
Calc Temp	Error	Pass/Fail
2.048	0.032	Fail
17.866	0.023	Fail
34.737	0.002	Pass
Correction Equation (Old to New)		
$y = 2.118208E-05 x^2 + 1.000155E+00 x + -3.285531E-02$		

Name	M. Schweichel
Date	07.12.23
Signed	M. Schweichel