

Wednesday, June 09, 2021, Time 16:13

Wintherm32v3 Version 3.31.143 Uni

Instrument: F200s

Instrument Program Version 290

Instrument Serial Number: 2520

Sample Name: A1-F1-20210609

Thickness: 37.73mm

Rear Left : 37.72 mm

Rear Right : 37.90 mm

Front Left: 37.57 mm

Front Right: 37.74 mm

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Thickness obtained : from instrument

TEST RUN

Calibration used : User Type

Calibration File Id: IRMMCalibration_sn2520

Number of transducers per plate: 1

Number of transducers used per plate: 1

Number of Setpoints: 3

Setpoint duration: 84 min

Block Averages for setpoint 1 in SI units

	Tupper [°C]	Tlower [°C]	Qupper [μV]	Qlower [μV]	Lambda [W/mK]	SampleU [°C]	SampleL [°C]
-ne-	16.09	24.59	-11531	4281	1.626	19.02	23.76
-ne-	15.00	24.96	-6793	2438	0.6301	17.14	24.30
-te-	15.00	25.01	-5572	2761	0.5459	16.78	24.25
-te-	15.00	25.01	-5065	3140	0.5339	16.62	24.14
-te-	15.00	25.01	-4752	3435	0.5316	16.53	24.06
-te-	15.01	25.01	-4550	3636	0.5310	16.46	24.01
-te-	15.01	25.01	-4422	3758	0.5303	16.42	23.97
-te-	15.00	25.01	-4341	3839	0.5300	16.39	23.94
-te-	15.00	25.01	-4290	3887	0.5296	16.37	23.93
-te-	15.00	25.01	-4252	3924	0.5294	16.36	23.92
-pe-	15.00	25.01	-4240	3934	0.5293	16.35	23.91
-pe-	15.00	25.01	-4222	3954	0.5289	16.34	23.91
-pe-	15.00	25.01	-4206	3968	0.5288	16.34	23.90
-pe-	15.00	25.01	-4198	3975	0.5288	16.34	23.90
-pe-	15.00	25.01	-4190	3980	0.5284	16.34	23.91
-pe-	15.00	25.01	-4185	3984	0.5284	16.34	23.91
-pe-	15.00	25.01	-4184	3985	0.5283	16.34	23.90
-pe-	15.01	25.01	-4182	3984	0.5282	16.34	23.91
-pe-	15.00	25.01	-4178	3984	0.5280	16.34	23.90
-pe-	15.01	25.02	-4181	3982	0.5279	16.34	23.91

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Setpoint No. 1

Setpoint Upper: 15.00 °C

Setpoint Lower: 25.00 °C

Temperature Upper: 16.34 °C

CalibFactor Upper: 0.025937

Results Upper: 0.5407 W/mK

Temperature Lower: 23.91 °C

CalibFactor Lower: 0.025942

Results Lower: 0.5154 W/mK

Percent Difference: 4.80%

Thermal Equilibrium Criteria:

Temperature Equilibrium: 0.20

Between Block HFM Equil.: 49

HFM Percent Change: 2.00

Min Number of Blocks: 4

Calculation Blocks: 3

Setpoint duration: 93 min

Block Averages for setpoint 2 in SI units

	Tupper	Tlower	Qupper	Qlower	Lambda	SampleU	SampleL
	[°C]	[°C]	[μV]	[μV]	[W/mK]	[°C]	[°C]
-ne-	10.22	20.09	-12178	-5131	1.170	13.67	20.94
-te-	10.00	20.00	-7590	399	0.5335	12.55	19.94
-te-	10.00	20.00	-6444	1494	0.5267	12.17	19.61
-te-	10.00	20.00	-5648	2299	0.5249	11.91	19.37
-te-	10.00	20.00	-5119	2837	0.5238	11.73	19.22
-te-	10.00	20.00	-4769	3190	0.5228	11.61	19.12
-te-	10.00	20.00	-4538	3424	0.5223	11.54	19.05
-te-	10.00	20.01	-4381	3583	0.5219	11.49	19.00
-te-	10.00	20.00	-4288	3682	0.5220	11.45	18.97
-te-	10.00	20.01	-4215	3746	0.5211	11.43	18.95
-te-	10.00	20.01	-4180	3795	0.5222	11.41	18.94
-pe-	10.00	20.00	-4158	3811	0.5215	11.40	18.93
-pe-	10.00	20.00	-4132	3835	0.5214	11.39	18.92
-pe-	10.00	20.00	-4112	3857	0.5213	11.39	18.92
-pe-	10.00	20.00	-4100	3869	0.5214	11.39	18.92
-pe-	10.00	20.01	-4096	3871	0.5213	11.39	18.92
-pe-	10.00	20.00	-4091	3877	0.5212	11.38	18.91
-pe-	10.00	20.01	-4089	3876	0.5211	11.39	18.91
-pe-	10.00	20.00	-4086	3880	0.5210	11.38	18.91
-pe-	10.00	20.01	-4085	3879	0.5211	11.38	18.91
-pe-	10.00	20.00	-4084	3880	0.5210	11.38	18.91
-pe-	10.01	20.01	-4085	3877	0.5212	11.39	18.91

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Setpoint No. 2
Setpoint Upper: 10.00 °C
Setpoint Lower: 20.00 °C
Temperature Upper: 11.38 °C
CalibFactor Upper: 0.026230
Results Upper: 0.5371 W/mK
Temperature Lower: 18.91 °C
CalibFactor Lower: 0.025977
Results Lower: 0.5051 W/mK
Percent Difference: 6.14%

Thermal Equilibrium Criteria:
Temperature Equilibrium: 0.20
Between Block HFM Equil.: 49
HFM Percent Change: 2.00
Min Number of Blocks: 4
Calculation Blocks: 3

Setpoint duration: 106 min

Block Averages for setpoint 3 in SI units

	Tupper	Tlower	Qupper	Qlower	Lambda	SampleU	SampleL
	[°C]	[°C]	[μV]	[μV]	[W/mK]	[°C]	[°C]
-ne-	5.32	15.15	-11806	-4987	1.159	8.83	16.01
-ne-	4.94	14.92	-7502	274	0.5305	7.61	14.92
-te-	5.00	15.00	-6308	1472	0.5243	7.24	14.62
-te-	5.00	15.00	-5530	2245	0.5206	6.97	14.39
-te-	5.00	15.00	-5011	2767	0.5186	6.79	14.24
-te-	5.00	15.00	-4667	3113	0.5173	6.67	14.13
-te-	5.00	15.00	-4443	3351	0.5173	6.59	14.06
-te-	5.00	15.00	-4291	3502	0.5166	6.53	14.02
-te-	5.00	15.00	-4198	3608	0.5169	6.50	13.98
-te-	5.00	15.00	-4133	3667	0.5163	6.48	13.97
-te-	5.00	15.00	-4081	3725	0.5164	6.46	13.95
-te-	5.00	15.01	-4062	3746	0.5164	6.45	13.94
-pe-	5.00	15.00	-4055	3752	0.5163	6.44	13.94
-pe-	4.99	15.00	-4042	3766	0.5162	6.43	13.93
-pe-	5.00	15.00	-4031	3777	0.5162	6.43	13.93
-pe-	5.00	15.00	-4025	3783	0.5163	6.43	13.93
-pe-	5.00	15.00	-4019	3792	0.5162	6.43	13.93
-pe-	5.00	15.01	-4016	3792	0.5161	6.43	13.93
-pe-	5.00	15.00	-4012	3796	0.5161	6.43	13.93
-pe-	5.00	15.01	-4011	3796	0.5160	6.43	13.93

-pe-	5.00	15.01	-4011	3796	0.5159	6.43	13.93
-pe-	5.00	15.01	-4009	3797	0.5159	6.43	13.93
-pe-	5.00	15.01	-4009	3797	0.5158	6.43	13.93
-pe-	5.00	15.01	-4006	3799	0.5158	6.43	13.93
-pe-	5.00	15.01	-4007	3795	0.5156	6.43	13.93

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Setpoint No. 3
Setpoint Upper: 5.00 °C
Setpoint Lower: 15.00 °C
Temperature Upper: 6.43 °C
CalibFactor Upper: 0.026525
Results Upper: 0.5347 W/mK
Temperature Lower: 13.93 °C
CalibFactor Lower: 0.026009
Results Lower: 0.4968 W/mK
Percent Difference: 7.35%

Thermal Equilibrium Criteria:
Temperature Equilibrium: 0.20
Between Block HFM Equil.: 49
HFM Percent Change: 2.00
Min Number of Blocks: 4
Calculation Blocks: 3

Results Table -- SI Units

Mean Temp	Upper Cond	Lower Cond	Average Cond
20.12	0.5407	0.5154	0.5280
15.15	0.5371	0.5051	0.5211
10.18	0.5347	0.4968	0.5157