

Calibration or Measurement Service			Measurand Level or Range			Measurement Conditions/Independent Variable		Expanded Uncertainty					Reference Standard used in calibration		List of Comparisons supporting this measurement/calibration service	Comments to be published via the web page	Administration				
Quantity/Class	Instrument or Artifact	Instrument Type or Method	Minimum value	Maximum value	Units	Parameter	Specifications	Value	Units	Coverage Factor	Level of Confidence	Is the expanded uncertainty a relative one?	Standard	Source of traceability			NMI Service Identifier	Service Category	NMI	Review Status	Review Comments
Temperature	Platinum Resistance Thermometer	Triple point of water	0.01	0.01	°C	Temperature	21 °C ± 2 °C	0.00043	°C	2	95%	No	Triple point of water Cell	PTB	1998 comparison of fixed point cells		INM-L02-01	1.3.2	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Platinum Resistance Thermometer	Gallium melting point	297646	297646	°C	Temperature	21 °C ± 2 °C	0.00095	°C	2	95%	No	Gallium cell	CENAM	SIM.T-K9.1, Draft B, 2013-02-22		INM-L02-02	1.3.2	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Platinum Resistance Thermometer	Tin freezing point	231928	231928	°C	Temperature	21 °C ± 2 °C	0.0026	°C	2	95%	No	Tin slim cell	PTB	SIM.T-K9.1, Draft B, 2013-02-22		INM-L02-03	1.3.2	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Platinum Resistance Thermometer	Zinc freezing point	419527	419527	°C	Temperature	21 °C ± 2 °C	0.0032	°C	2	95%	No	Zn slim cell	PTB	SIM.T-K9.1, Draft B, 2013-02-22		INM-L02-04	1.3.2	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Platinum Resistance Thermometer	Ice point bath	0	0	°C	Temperature	21 °C ± 2 °C	0.013	°C	2	95%	No	Ice point bath	INM			INM-L02-05	2.2.2	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Platinum Resistance Thermometer	Comparison in stirred ethanol bath	-80	0	°C	Temperature	21 °C ± 2 °C	0.072	°C	2	95%	No	SPRTs	CENAM			INM-L02-06	2.2.2	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Platinum Resistance Thermometer	Comparison in stirred liquid bath and metal block furnace	0	420	°C	Temperature	21 °C ± 2 °C	0.044	°C	2	95%	No	SPRTs	CENAM			INM-L02-07	2.2.2	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Platinum Resistance Thermometer	Comparison in metal block furnace	420	660	°C	Temperature	21 °C ± 2 °C	0.052	°C	2	95%	No	SPRTs	CENAM			INM-L02-08	2.2.2	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Thermocouples: noble metal, (Types S, R and B) and base metal (Types T, J, K, E, and N)	Comparison ice point and metal tube & block furnace	0	400	°C	Temperature	21 °C ± 2 °C	0.12 to 1.2	°C	2	95%	No	Noble metal T/C	INM, PTB			INM-L02-09	2.3.1 2.3.2	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Thermocouples: noble metal, (Types S, R and B) and base metal (Types T, J, K, E, and N)	Comparison metal tube & block furnace	400	800	°C	Temperature	21 °C ± 2 °C	1.2 to 2.4	°C	2	95%	No	Noble metal T/C	PTB			INM-L02-10	2.3.1 2.3.2	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Thermocouples: noble metal, (Types S, R and B) and base metal (Types T, J, K, E, and N)	Comparison metal tube & block furnace	800	1200	°C	Temperature	21 °C ± 2 °C	2.4 to 3.3	°C	2	95%	No	Noble metal T/C	PTB			INM-L02-11	2.3.1 2.3.2	INM Colombia		
						Relative humidity	50% RH ± 15% RH														

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Temperature	Liquid-in-Glass thermometers: 0.05 °C graduation	Comparison in stirred liquid bath	-38	5	°C	Temperature	21 °C ± 2 °C	0.048	°C	2	95%	No	SPRTs	CENAM			INM-L02-12	2.4.1	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Liquid-in-Glass thermometers: 0.1 °C graduation	Comparison in stirred liquid bath	-38	5	°C	Temperature	21 °C ± 2 °C	0.049	°C	2	95%	No	SPRTs	CENAM			INM-L02-13	2.4.1	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Liquid-in-Glass thermometers: 0.2 °C graduation	Comparison in stirred liquid bath	-38	5	°C	Temperature	21 °C ± 2 °C	0.056	°C	2	95%	No	SPRTs	CENAM			INM-L02-14	2.4.1	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Liquid-in-Glass thermometers: 0.5 °C graduation	Comparison in stirred liquid bath	-38	5	°C	Temperature	21 °C ± 2 °C	0.092	°C	2	95%	No	SPRTs	CENAM			INM-L02-15	2.4.1	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Liquid-in-Glass thermometers: 1 °C graduation	Comparison in stirred liquid bath	-38	5	°C	Temperature	21 °C ± 2 °C	0.17	°C	2	95%	No	SPRTs	CENAM			INM-L02-16	2.4.1	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Liquid-in-Glass thermometers: 0.05 °C graduation	Comparison in stirred liquid bath	5	80	°C	Temperature	21 °C ± 2 °C	0.037	°C	2	95%	No	SPRTs	CENAM			INM-L02-17	2.4.1	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Liquid-in-Glass thermometers: 0.1 °C graduation	Comparison in stirred liquid bath	5	80	°C	Temperature	21 °C ± 2 °C	0.039	°C	2	95%	No	SPRTs	CENAM			INM-L02-18	2.4.1	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Liquid-in-Glass thermometers: 0.2 °C graduation	Comparison in stirred liquid bath	5	80	°C	Temperature	21 °C ± 2 °C	0.048	°C	2	95%	No	SPRTs	CENAM			INM-L02-19	2.4.1	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Liquid-in-Glass thermometers: 0.5 °C graduation	Comparison in stirred liquid bath	5	80	°C	Temperature	21 °C ± 2 °C	0.089	°C	2	95%	No	SPRTs	CENAM			INM-L02-20	2.4.1	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Liquid-in-Glass thermometers: 1 °C graduation	Comparison in stirred liquid bath	5	80	°C	Temperature	21 °C ± 2 °C	0.17	°C	2	95%	No	SPRTs	CENAM			INM-L02-21	2.4.1	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Liquid-in-Glass thermometers: 0.05 °C graduation	Comparison in stirred liquid bath	80	150	°C	Temperature	21 °C ± 2 °C	0.053	°C	2	95%	No	SPRTs	CENAM			INM-L02-22	2.4.1	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Liquid-in-Glass thermometers: 0.1 °C graduation	Comparison in stirred liquid bath	80	150	°C	Temperature	21 °C ± 2 °C	0.054	°C	2	95%	No	SPRTs	CENAM			INM-L02-23	2.4.1	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Liquid-in-Glass thermometers: 0.2 °C graduation	Comparison in stirred liquid bath	80	150	°C	Temperature	21 °C ± 2 °C	0.061	°C	2	95%	No	SPRTs	CENAM			INM-L02-24	2.4.1	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Liquid-in-Glass thermometers: 0.5 °C graduation	Comparison in stirred liquid bath	80	150	°C	Temperature	21 °C ± 2 °C	0.096	°C	2	95%	No	SPRTs	CENAM			INM-L02-25	2.4.1	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Liquid-in-Glass thermometers: 1 °C graduation	Comparison in stirred liquid bath	80	150	°C	Temperature	21 °C ± 2 °C	0.17	°C	2	95%	No	SPRTs	CENAM			INM-L02-26	2.4.1	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Liquid-in-Glass thermometers: 0.02 °C graduation	Comparison in stirred liquid bath	16	24	°C	Temperature	21 °C ± 2 °C	0.013	°C	2	95%	No	SPRTs	CENAM			INM-L02-27	2.4.1	INM Colombia		
						Relative humidity	50% RH ± 15% RH														
Temperature	Liquid-in-Glass thermometers: 0.01 °C graduation	Comparison in stirred liquid bath	-1	1	°C	Temperature	21 °C ± 2 °C	0.013	°C	2	95%	No	SPRTs	CENAM			INM-L02-28	2.4.1	INM Colombia		
						Relative humidity	50% RH ± 15% RH														

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Temperature	Blackbody radiation sources	Transfer radiation thermometer	50	200	°C	Relative humidity	50% RH ± 15% RH	1.7	°C	2	95%	No	Flat-plate BB	CENAM		INM-L02-29	2.5.2	INM Colombia			
						Temperature	21 °C ± 2 °C														
Temperature	Blackbody radiation sources	Transfer radiation thermometer	200	500	°C	Relative humidity	50% RH ± 15% RH	2.4	°C	2	95%	No	Flat-plate BB	CENAM		INM-L02-30	2.5.2	INM Colombia			
						Temperature	21 °C ± 2 °C														
Temperature	Radiation thermometer	Direct measurement with standard	0	120	°C	Relative humidity	50% RH ± 15% RH	1.2	°C	2	95%	No	Flat-plate BB	CENAM		INM-L02-31	2.5.4	INM Colombia			
						Temperature	21 °C ± 2 °C														
Temperature	Radiation thermometer	Direct measurement with standard	120	350	°C	Relative humidity	50% RH ± 15% RH	1.6	°C	2	95%	No	Flat-plate BB	CENAM		INM-L02-32	2.5.4	INM Colombia			
						Temperature	21 °C ± 2 °C														
Temperature	Radiation thermometer	Direct measurement with standard	350	500	°C	Relative humidity	50% RH ± 15% RH	2.2	°C	2	95%	No	Flat-plate BB	CENAM		INM-L02-33	2.5.4	INM Colombia			
						Temperature	21 °C ± 2 °C														
Temperature	Digital System Thermometers (PRT sensor)	Ice point bath	0	0	°C	Relative humidity	50% RH ± 15% RH	0.013	°C	2	95%	No	Ice point bath	INM		INM-L02-34	2.7.1	INM Colombia			
						Temperature	21 °C ± 2 °C														
Temperature	Digital System Thermometers (PRT sensor)	Comparison in stirred liquid bath	-80	0	°C	Relative humidity	50% RH ± 15% RH	0.072	°C	2	95%	No	SPRTs	CENAM		INM-L02-35	2.7.1	INM Colombia			
						Temperature	21 °C ± 2 °C														
Temperature	Digital System Thermometers (PRT sensor)	Comparison in stirred liquid bath and metal block furnace	0	420	°C	Relative humidity	50% RH ± 15% RH	0.044	°C	2	95%	No	SPRTs	CENAM		INM-L02-36	2.7.1	INM Colombia			
						Temperature	21 °C ± 2 °C														
Temperature	Digital System Thermometers (PRT sensor)	Comparison in metal block furnace	420	660	°C	Relative humidity	50% RH ± 15% RH	0.052	°C	2	95%	No	SPRTs	CENAM		INM-L02-37	2.7.1	INM Colombia			
						Temperature	21 °C ± 2 °C														
Temperature	Digital System Thermometers (base-metal thermocouple sensor)	Comparison in stirred liquid bath and metal block furnace	-80	250	°C	Relative humidity	50% RH ± 15% RH	0.80	°C	2	95%	No	SPRTs	CENAM		INM-L02-38	2.7.1	INM Colombia			
						Temperature	21 °C ± 2 °C														
Humidity	Humidity measuring equipment	Two pressure humidity generator and a Dew point hygrometer	10	95	%RH	Relative humidity	50% RH ± 15% RH	0.9	%RH	2	95%	No	Two pressure humidity generator and a Dew point hygrometer	INM, PTB		INM-L02-39	3.1, 3.2 and 3.3	INM Colombia			
						Temperature	21 °C ± 2 °C														
Temperature	Thermohygrometers : temperature measurement	Comparison in climatic chamber	0	70	°C	Relative humidity	50% RH ± 15% RH	0.2	°C	2	95%	No	Digital System Thermometers (PRT sensors)	INM		INM-L02-40	2.7.1	INM Colombia			
						Temperature	21 °C ± 2 °C														