

Calibration charges: D1.03, Temperature & Humidity Metrology (w.e.f. 01.04.2021)

Sl. No.	Parameter	Item Type / Group	Item Name	Alias Name	Range	No. of Points for Calibration	Limitation / Condition	Description for Additional Charges	Remarks, if any	Charges per Item Rs.	Additional Charges Rs.
Platinum Resistance Thermometers (PRT)											
1	Temperature	Platinum Resistance Thermometer	Standard Platinum Resistance Thermometer	SPRT/ HTPRT / Capsule SPRT	Triple Point of Water 0.01 °C	1	Stem Dia <=7.5 mm, Stem Length >=450 mm			19400	
2	Temperature	Platinum Resistance Thermometer	Standard Platinum Resistance Thermometer	SPRT / HTPRT / Capsule SPRT	MP of Gallium, 29.7646 °C	1	Stem Dia <=7.5 mm, Stem Length >=450 mm			19400	
3	Temperature	Platinum Resistance Thermometer	Standard Platinum Resistance Thermometer	SPRT / HTPRT / Capsule SPRT	FP of Indium, 156.5985 °C	1	Stem Dia <=7.5 mm, Stem Length >=450 mm			24400	
4	Temperature	Platinum Resistance Thermometer	Standard Platinum Resistance Thermometer	SPRT/ HTPRT	FP of Tin, 231.958 °C	1	Stem Dia <=7.5 mm, Stem Length >=450 mm			24400	
5	Temperature	Platinum Resistance Thermometer	Standard Platinum Resistance Thermometer	SPRT/ HTPRT	FP of Zinc, 419.527 °C	1	Stem Dia <=7.5 mm, Stem Length >=450 mm			24400	
6	Temperature	Platinum Resistance Thermometer	Standard Platinum Resistance Thermometer	SPRT/ HTPRT	FP of Al, 660.323 °C	1	Stem Dia <=7.5 mm, Stem Length >=450 mm			29100	
7	Temperature	Platinum Resistance Thermometer	Standard Platinum Resistance Thermometer	HTPRT	FP of Silver, 961.78 °C	1	Stem Dia <=7.5 mm, Stem Length >=450 mm			69400	
8	Temperature	Platinum Resistance Thermometer	Standard Platinum Resistance Thermometer	SPRT / Capsule SPRT	TP of Mercury, -38.8344 °C	1	Stem Dia <=7.5 mm, Stem Length >=450 mm			24400	
9	Temperature	Platinum Resistance Thermometer	Standard Platinum Resistance Thermometer	SPRT / Capsule SPRT	TP of Argon, -189.3442 °C	1	Stem Dia <=7.5 mm, Stem Length >=450 mm			29100	
10	Temperature	Platinum Resistance Thermometer	Standard Platinum Resistance Thermometer	SPRT / Capsule SPRT	B.P of Liquid Nitrogen, -195.798 °C	1	Stem Dia <=7.5 mm, Stem Length >=450 mm			19400	
11	Temperature	Platinum Resistance Thermometer	Standard Platinum Resistance Thermometer	SPRT / Capsule SPRT	0°C to -196 °C by Fixed Point method	3	Stem Dia <=7.5 mm, Stem Length >=450 mm			53200	
12	Temperature	Platinum Resistance Thermometer	Standard Platinum Resistance Thermometer	SPRT / Capsule SPRT	0.01°C to -189.3442 °C by Fixed Point method	3	Stem Dia <=7.5 mm, Stem Length >=450 mm			55700	
13	Temperature	Platinum Resistance Thermometer	Standard Platinum Resistance Thermometer	SPRT	-38.8344°C to 29.7646 °C by Fixed Point method	3	Stem Dia <=7.5 mm, Stem Length >=450 mm			48400	
14	Temperature	Platinum Resistance Thermometer	Standard Platinum Resistance Thermometer	SPRT	0°C to 29.7646 °C by Fixed Point method	2	Stem Dia <=7.5 mm, Stem Length >=450 mm			32300	
15	Temperature	Platinum Resistance Thermometer	Standard Platinum Resistance Thermometer	SPRT	0°C to 156.5985 °C by Fixed Point method	2	Stem Dia <=7.5 mm, Stem Length >=450 mm			32300	
16	Temperature	Platinum Resistance Thermometer	Standard Platinum Resistance Thermometer	SPRT	0°C to 231 °C by Fixed Point method	3	Stem Dia <=7.5 mm, Stem Length >=450 mm			44500	
17	Temperature	Platinum Resistance Thermometer	Standard Platinum Resistance Thermometer	SPRT	0°C to 420 °C by Fixed Point method	3	Stem Dia <=7.5 mm, Stem Length >=450 mm			44500	
18	Temperature	Platinum Resistance Thermometer	Standard Platinum Resistance Thermometer	SPRT	0°C to 660 °C by Fixed Point method	4	Stem Dia <=7.5 mm, Stem Length >=450 mm			64600	
19	Temperature	Platinum Resistance Thermometer	High Temp. Platinum Resistance Thermometer	HTPRT	0°C to 962 °C by Fixed Point method	5	Stem Dia <=7.5 mm, Stem Length >=450 mm			111500	
20	Temperature	Platinum Resistance Thermometer	Semi Standard Platinum Resistance Thermometer	PRT (PT-100/25)	0°C to -196 °C by Secondary Fixed Point method	3	Stem Dia <=7.5 mm, Stem Length >=450 mm			37100	
21	Temperature	Platinum Resistance Thermometer	Semi Standard Platinum Resistance Thermometer	PRT (PT-100/25)	-38.84°C to 29.76 °C by Secondary Fixed Point method	3	Stem Dia, <=7.0 mm, Stem Length >=450 mm			26600	
22	Temperature	Platinum Resistance Thermometer	Semi Standard Platinum Resistance Thermometer	PRT (PT-100/25)	0°C to 29.76 °C by secondary Fixed Point method	2	Stem Dia, <=7.0 mm, Stem Length >=450 mm			20100	
23	Temperature	Platinum Resistance Thermometer	Semi Standard Platinum Resistance Thermometer	PRT (PT-100/25)	0°C to 156 °C by secondary Fixed Point method	2	Stem Dia, <=7.0 mm, Stem Length >=450 mm			20100	
24	Temperature	Platinum Resistance Thermometer	Semi Standard Platinum Resistance Thermometer	PRT (PT-100/25)	0°C to 231°C by secondary Fixed Point method	2	Stem Dia, <=7.0 mm, Stem Length >=450 mm			24300	
25	Temperature	Platinum Resistance Thermometer	Semi Standard Platinum Resistance Thermometer	PRT (PT-100/25)	0°C to 420 °C by Secondary Fixed Point method	3	Stem Dia <=7.5 mm, Stem Length >=450 mm			37100	
26	Temperature	Platinum Resistance Thermometer	Semi Standard Platinum Resistance Thermometer	PRT (PT-100/25)	0°C to 660 °C by secondary Fixed Point method	4	Stem Dia <=7.5 mm, Stem Length >=450 mm			42000	
27	Temperature	Platinum Resistance Thermometer	Platinum Resistance Thermometer	SPRT/PRT (PT-100/25)/RTD with or without Indicator	0°C to 660 °C by Comparison calibration method	5	Stem Dia, <=7.0 mm, Stem Length >=300 mm	For each additional point		23100	4600
28	Temperature	Platinum Resistance Thermometer	Platinum Resistance Thermometer	SPRT/PRT (PT-100/25)/RTD with or without Indicator	0°C to -196 °C by Comparison calibration method	5	Stem Dia, <=7.0 mm, Stem Length >=300 mm	For each additional point	Item range should be 0 to -196 °C	23100	4600
29	Temperature	Fixed Point Cell	Triple Point of Water Cell	TPW Cell	0.01 °C	1	Well I.D >=10 mm			33900	
Clinical/ Medical Thermometers & Incubators											
30	Temperature	Clinical Thermometer (Digital/Mercury)	Clinical/Medical Thermometer	Clinical/Medical Thermometer	35°C to 43°C, (95 °F to 109.4 °F)	3	New Batteries Recommended	For each additional point	Charges for Batch up to Five Thermometers	11000	3700

		(Batch of 5 Thermometers)									
31	Temperature	Infrared Clinical Thermometer (Batch of 2 Thermometers)	IR Ear/Fore Head/ Thermal Imager	IR Clinical/Medical Thermometer	35°C to 43°C, (95 °F to 109.4 °F)	3	New Batteries Recommended	For each additional point	Charges for Batch up to Two Thermometers	11000	3700
32	Temperature & Humidity	Temperature & Humidity Sources	Infant/Baby Incubators	Infant/Baby Incubators	10°C to 50°C, 20% to 95% RH	3	Consumables to be Provided by customer	For each additional point		34000	11300
Liquid-in-Glass Thermometers (LIGTs)											
33	Temperature	Precision Glass Thermometer	Liquid in Glass Thermometer (Mercury/Alcohol)(Least Count 0.01, 0.02 & 0.05 °C	LIGT	-90°C to 300°C	5	Stem Length <=450 mm	For each additional point		28800	5800
34	Temperature	Precision Glass Thermometer	Liquid in Glass Thermometer (Mercury/Alcohol)(Least Count 0.1°C to 1°C	LIGT	-90°C to 300°C	5	Stem Length <=450 mm	For each additional point		14000	2800
35	Temperature	Glass Thermometer	Liquid in Glass Thermometer	LIGT	0°C to 400°C	5	Stem Length <=450 mm	For each additional point		35000	7000
36	Temperature	Specialized Thermometer	Quartz Thermometer	QT	0 °C to 300 °C	5	Stem Length <=450 mm	For each additional point		35000	7000
37	Temperature	Digital Thermometer	High Precision Thermometer	Digital Thermometer with Sensor probe	-90°C to 300°C	5		For each additional point		30000	6000
38	Temperature	Specilized Thermometer	Brix Hydrometer (Thermometer)		0 °C to 50 °C	5		For each additional point		27000	5400
Thermocouples (Noble & Base Metal TCs)											
39	Temperature	Standard TC	Noble Metal Thermocouple (Bare Wires)	Type S, R, B	0°C to 1200 °C	5	Wire Length >=1250 mm, Dia. <=0.5 mm	For each additional point		51800	10400
40	Temperature	Standard TC	Noble Metal Thermocouple (Probe) with or without indicator	Type S, R, B	0°C to 1200 °C	5	Probe / Sheath Length >=600 mm, Dia. <=7.5 mm	For each additional point		42800	8600
41	Temperature	Base Metal TC	Base Metal Thermocouple probe with or Without Indicator	Base Metals	0°C to 1200 °C	5	Probe / Sheath Length >=600 mm, Dia. <=7.5 mm	For each additional point		35000	7000
42	Temperature	Standard TC	Noble Metal Thermocouple	Type S, R, B	Ice Point 0.000°C	1	Sensor Length >=600 mm, Dia. <=7.5 mm			8500	
43	Temperature	Standard TC	Noble Metal Thermocouple	Type S, R, B	FP In 156.5985°C	1	Sensor Length >=600 mm, Dia. <=7.5 mm			23500	
44	Temperature	Standard TC	Noble Metal Thermocouple	Type S, R, B	FP Sn 231.928 °C	1	Sensor Length >=600 mm, Dia. <=7.5 mm			23500	
45	Temperature	Standard TC	Noble Metal Thermocouple	Type S, R, B	FP Zn 419.527°C	1	Sensor Length >=600 mm, Dia. <=7.5 mm			23500	
46	Temperature	Standard TC	Noble Metal Thermocouple	Type S, R, B	FP Al 660.323°C	1	Sensor Length >=600 mm, Dia. <=7.5 mm			30200	
47	Temperature	Standard TC	Noble Metal Thermocouple	Type S, R, B	FP Ag 961.78°C	1	Sensor Length >=600 mm, Dia. <=7.5 mm			35000	
48	Temperature	Standard TC	Noble Metal Thermocouple	Type S, R, B	MP Au 1064.18°C	1	Sensor Length >=600 mm, Dia. <=7.5 mm			25300	
49	Temperature	Standard TC	Noble metal Thermocouple	Type S, R, B	FP Cu 1084.62 °C	1	Sensor Length >=600 mm, Dia. <=7.5 mm			35000	
50	Temperature	Standard TC	Noble metal Thermocouple	Type S, R, B	MP Pd 1554.5 °C	1	Sensor Length >=600 mm, Dia. <=7.5 mm			35000	
51	Temperature	Standard TC	Noble metal Thermocouple (probe / sheath) with or without Indicator	Type S, R, B, C	0°C to 1600 °C	5	Sensor Length >=600 mm, Dia. <=7.5 mm	For each additional point		65500	13100
52	Temperature	Standard TC	Noble metal Thermocouple (bare wires)	Type S, R, B, C	0°C to 1600 °C	5	Wire Length >=1250 mm, Dia. <=0.5 mm	For each additional point		70200	14040
53	Temperature	Standard TC	Noble metal Thermocouple (probe / sheath)	Type S, R, B	Fixed Point Calibration (0°C to 1200 °C)	3 (Fixed points) (Zn,Al,Ag/Cu)	Sensor Length >=600 mm, Dia. <=7.5 mm			88800	
54	Temperature	Standard TC	Noble metal Thermocouple (Bare wires)	Type S, R, B	Fixed Point Calibration (0°C to 1200 °C)	3 (Fixed points) (Zn,Al,Ag/Cu)	Sensor Length >=600 mm, Dia. <=7.5 mm			93800	
55	Temperature	Standard TC	Noble metal Thermocouple (probe / sheath)	Type S, R, B	Fixed Point Calibration (0°C to 1600 °C)	3 (Fixed points) (Zn,Ag/Cu, Pd)	Sensor Length >=600 mm, Dia. <=7.5 mm			94000	
56	Temperature	Standard TC	Noble metal Thermocouple (bare wires)	Type S, R, B	Fixed Point Calibration (0°C to 1600 °C)	3 (Fixed points) (Zn,Ag/Cu, Pd)	Wire Length >=1250 mm, Dia. <=0.5 mm			100000	
57	Temperature	High Temperature Indicator	Datalogger with Multiple Sensor (Up to 9 Sensors)		-50°C to 1600 °C	5	Probe Length >=600 mm, Dia.<=7.5 mm for range above 700 °C	For each additional point		82600	16500
Radiation Thermometers (Pyrometers, Thermal Imagers, TS Lamp, Black Body)											
58	Temperature	Non Contact Temperature Measuring Device	Radiation Pyrometer	IR Pyrometer/ TR Pyrometer	50°C to 1300°C	5		For each additional point		46100	9200
59	Temperature	Non Contact Temperature Measuring Device	Thermal Imager/Laser gun pyrometer	IR Radiation Imaging Pyrometer	50°C to 1300°C	5		For each additional point		53000	10600
60	Temperature	High Temperature Measuring Device	Optical Pyrometer	Disappearing Filament Pyrometer / Spectral Pyrometer	800°C to 1700 °C	5	New Batteries Recommended	For each additional point		47600	9500
61	Temperature	High Temperature Measuring Device	Optical Pyrometer	Disappearing Filament Pyrometer / Spectral Pyrometer	800°C to 2200 °C	5	New Batteries Recommended	For each additional point		96800	19400
62	Temperature	High Temperature Measuring Device	Optical Pyrometer	Disappearing Filament Pyrometer / Spectral Pyrometer	1600°C to 2200 °C	5	New Batteries Recommended	For each additional point		52300	10500
63	Temperature	High Temperature	Tungsten Strip Filament	TS Lamp	800°C to 1700 °C	5	Standard Lamp	For each		53900	10800

		Radiation Source	Lamp				Holder is required	additional point			
64	Temperature	High Temperature Radiation Source	Tungsten Strip Filament Lamp	TS Lamp	1600°C to 2200 °C	5	Standard Lamp Holder is required	For each additional point		58500	11700
65	Temperature	High Temperature Radiation Source	Tungsten Strip Filament Lamp	TS Lamp	800°C to 2200 °C	5	Standard Lamp Holder is required	For each additional point		109100	21800
66	Temperature	Non Contact Temperature Measuring Device	Radiation Pyrometer/Thermal Imager/Laser gun pyrometer	IR Pyrometer/ TR Pyrometer/IR Radiation Imaging Pyrometer	600°C to 2000 °C	5	New Batteries, operational manual, mounting stand Recommended	For each additional point		91300	18300
67	Temperature	Non Contact Temperature Measuring Device	Radiation Pyrometer/Thermal Imager/Laser gun pyrometer	IR Pyrometer/ TR Pyrometer/IR Radiation Imaging Pyrometer	2000°C to 3000 °C	3	New Batteries, operational manual, mounting stand Recommended	For each additional point		143000	47700

Relative Humidity (Hygrometers, Dew/Frost Point Meters, Air Temperature) & Moisture (% MC meters)

68	Humidity	Ambient Conditions Monitoring Device	Relative Humidity Hygrometer	Dial/digital RH/ Hygrometer	10% to <20% at temperature from 10 °C to 60 °C (Humidity only)	3	New Batteries Recommended	For each additional point		10200	3400
69	Humidity	Ambient Conditions Monitoring Device	Relative Humidity Hygrometer	Dial/digital RH/ Hygrometer	40% to 60% at temperature from 10 °C to 60 °C (Humidity only)	3	New Batteries Recommended	For each additional point		13000	4300
70	Humidity	Ambient Conditions Monitoring Device	Relative Humidity Hygrometer	Dial/digital RH/ Hygrometer	20% to 95% at temperature from 10 °C to 60 °C (Humidity only)	5	New Batteries Recommended	For each additional point		26200	5200
71	Humidity	Ambient Conditions Monitoring Device	Relative Humidity Hygrometer	Dial/digital RH/ Hygrometer	10% to 95% at temperature from 10 °C to 60 °C (Humidity only)	5	New Batteries Recommended	For each additional point		31200	6200
72	Humidity	Ambient Conditions Monitoring Device	Air Temperature Hygrometer	Dial/digital RH/ Hygrometer	0°C to 10°C at humidity @ fixed RH (Temperature only)	3	New Batteries Recommended	For each additional point		15000	5000
73	Humidity	Ambient Conditions Monitoring Device	Air Temperature Hygrometer	Dial/digital RH/ Hygrometer	10°C to 60°C at humidity @ fixed RH (Temperature only)	5	New Batteries Recommended	For each additional point		25000	5000
74	Humidity	Ambient Conditions Monitoring Device	Dew Point/ Frost Point Temperature	Dew Point Meter	-30°C to 60°C	3	New Batteries Recommended	For each additional point		39100	13000
75	Humidity	Humidity Sources	Humidity Chamber/ Climatic Chamber/ Lab Incubators	Humidity Chamber/ Climatic Chamber	10% to 95% RH	3	Consumables to be Provided by customer	For each additional point		77000	25700
76	Humidity	Digital Humidity Sensor (Batch of 9 Sensors)	Relative Humidity Sensor	Dial/digital RH/ Hygrometer	10% to 95% at temperature from 10 °C to 70 °C (Humidity only)	5	New Batteries Recommended	For each additional point	Charges for Batch up to Nine Sensors	124900	25000
77	Moisture	Digital Moisture Meter	Moisture Sensor with Display	Digital/Electrical type moisture meter	0% to 100% MC	3	New Batteries Recommended	For each additional point	Moisture meter along with 3 pack of same sample supplied by customer	25300	8400

Thermal Sources (Baths, Dry Blocks, Oven, Chambers, Furnaces, Blackbody Furnaces)

78	Temperature	Constant Temperature Source	Ice Point Bath	Zeref / Zero Temp Bath / Zero Ref. Source / Ice Point Cell	0.00 °C	1				38500	
79	Temperature	Temperature Source	Liquid Temperature Bath (LN ₂ /Alcohol/Water/Oil)	Liquid Baths	-196°C to 300°C	3	Alcohol/DI Water/Oil or Any other fluid to be provided by the customer	For each additional point		48100	16000
80	Temperature	Constant Temperature Source	Salt Bath	Salt Bath	300 °C to 500 °C	3	Salt to be Provided by customer	For each additional point		49600	16500
81	Temperature	Constant Temperature Source	Fluidized Bed Bath	Alumina Bath	50°C to 700 °C	3		For each additional point		50300	16800
82	Temperature	High Temperature Source	Temperature Source	Temperature Source (Dry Block Calibrator/Furnace/ Oven/Heating Chamber/Climatic Chamber)	-50°C to 1600 °C	3		For each additional point		79000	26300
83	Temperature	High Temperature Source	Blackbody Furnace	Blackbody Source	50°C to 1600 °C	3		For each additional point		86400	28800
84	Temperature	Non Contact Temperature Measuring Source	Blackbody Radiation Source	Black Body Furnace	50°C to 1300 °C	5		For each additional point		75000	15000