

NO: SAMM 862

Page: 1 of 7

LABORATORY LOCATION/ CENTRAL OFFICE:	Global Venture Metrology Sdn. Bhd. No. 57-A, Jalan Bayu Tinggi 7/KS 6, Batu Unjur, 41200 Klang, Selangor , 41200, SELANGOR MALAYSIA
	
ACCREDITED SINCE :	15 MAY 2025
FIELD(S) OF CALIBRATION:	HEAT AND TEMPERATURE MASS PRESSURE

This laboratory has demonstrated its technical competence to operate in accordance with MS ISO/IEC 17025:2017 (ISO/IEC 17025:2017).

This laboratory's fulfillment of the requirements of ISO/IEC 17025 means the laboratory meets both the technical competence requirements and management system requirements that are necessary for it to consistently deliver technically valid test results and calibrations. The management system requirements in ISO/IEC 17025 are written in language relevant to laboratory operations and operate generally in accordance with the principles of ISO 9001 (see Joint ISO-ILAC-IAF Communiqué dated April 2017).

*** The uncertainty covered by the CMC is expressed as the expanded uncertainty corresponding to a coverage probability of approximately 95 % and have a coverage factor of k=2 unless stated otherwise.**

CENTRAL LOCATION	Global Venture Metrology Sdn. Bhd. No. 57-A, Jalan Bayu Tinggi 7/KS 6, Batu Unjur, 41200 Klang, Selangor , 41200, Selangor
FIELD(S) OF CALIBRATION :	HEAT & TEMPERATURE, MASS, PRESSURE

SCOPE OF CALIBRATION : HEAT AND TEMPERATURE

Instrument Calibrated/Measurement Parameter	Range	Calibration and Measurement Capability Expressed as an Uncertainty ($\pm$)*	Remarks
(by Electrical	None	None	
(partial Immersion)	None	None	bath and Dry Block
	None	None	Point
	30 °C to 200 °C	1.0 °C	Comparison with
(total Immersion)	None	None	bath
1) Pt 100	-200 °C to 850 °C	0.22 °C	
	- 200 °C to 850 °C	0.2 °C	
	-200 °C to 850 °C	0.22 °C	

Schedule

Issue date: 15 May 2025
Valid Until: -



NO: SAMM 862

Page: 2 of 7

Instrument Calibrated/Measurement Parameter	Range	Calibration and Measurement Capability Expressed as an Uncertainty ($\pm$)*	Remarks
A) Type T	- 200 °C to 400 °C	0.52 °C	
	- 270 °C to -100 °C	1.0°C	
	- 200 °C to 400 °C	0.52 °C	
B) Type E	- 200 °C to 1000 °C	0.52 °C	
	- 250 °C to -100 °C	1.0°C	
	- 200 °C to 1000 °C	0.52 °C	
C) Type K	- 200 °C to 1370 °C	0.52 °C	By electrical simulation using
	- 270 °C to -100 °C	2.0 °C	By electrical measurement
C) Type K D) Type R E) Type J	- 200 °C to 1370 °C 0 °C to 1760 °C - 200 °C to -1200 °C	0.52 °C 1.8°C 0.52 °C	By electrical simulation using calibrator and reference table ITS 90
D) Type R	0 °C to 1760 °C	1.8°C	calibrator and reference table
	- 50 °C to 500 °C	0.6 °C	table ITS 90
Device Pneumatic Hydraulic	0.9 bar to 2 bar 2 bar to 20 bar 20 bar to 100 bar 100 bar to 300 bar 300 bar to 700 bar	0.0050 bar 0.093 bar 0.6 bar 1.5 bar 4.0 bar	Calibrate by using pressure calibrator or pressure meter
E) Type J	- 200 °C to 1200 °C	0.52 °C	ITS 90
	- 210 °C to 1200 °C	0.2°C	using multimeter
Enclosures	250 °C to 1200 °C	3.5 °C	using
F) Type S	0 °C to 1760 °C	1.8°C	
	- 50 °C to 500 °C	0.6 °C	table ITS 90
	0 °C to 1760 °C	1.8°C	
G) Type B	600 °C to 1800 °C	1.8°C	
	200 °C to 500 °C	1.0°C	
	600 °C to 1800 °C	1.8°C	
H) Type N	- 200 °C to 1300 °C	0.52 °C	
	- 200 °C to 1300 °C	0.3 °C	
	- 200 °C to 1300 °C	0.52 °C	
Humidity Controlled Enclosure	25 % rh to 90 % rh @ 25°C	3.6 % rh	Calibration by humidity data logger with reference to AS2853:1986
	30 to 95 Yrh	4 %rh	Using temperature and humidity data logger
I. Generate	None	None	
Liquid-in-glass	-30 °C to 50 °C	1.3°C	Comparison with
	-30 °C to 200 °C	0.4 °C	Comparison with
	o°C	None	Comparison with
Scales	200g to 1000 g	0.005 g	Standard

Schedule

Issue date: 15 May 2025
Valid Until: -



NO: SAMM 862

Page: 3 of 7

Instrument Calibrated/Measurement Parameter	Range	Calibration and Measurement Capability Expressed as an Uncertainty ($\pm$)*	Remarks
Simulation)	None	None	
Temperature Calibrator	None	None	
Temperature Controlled	-30 °C to 250 °C	None	Calibrate by
Temperature Indicating	None	None	
	-200 °C to 0 °C	0.25 °C	calibrator.
Temperature Indicating Device (by Electrical Simulation)	None	None	
Temperature Sensor	0 °C	0.64 °C	Comparison with
	0 °C to 420 °C	0.18 °C	Comparison method using SPRT and
	0 °C to 420 °C	0.18 °C	Comparison method using SPRT and
	0 °C to 420 °C	0.51 °C	Comparison method using SPRT and
	200 °C to 400 °C	0.33 °C	
	400 °C to 600 °C 600 °C to 1200 °C	0.75 °C 2.7 °C	Comparison with reference Pt100/Type R in
	400 °C to 600 °C 600 °C to 1200 °C	None	liquid bath and
	30 °C to 200 °C 200 °C to 400 °C	0.27 °C 0.44 °C	Comparison with reference Pt100 in temperature block calibrator
Temperature Sensor With Indicator	-30 °C to 300 °C 300 °C to 640 °C	1.8 °C	Comparison with Pt100 in liquid bath and Dry
	-30 °C to 30 °C 30 °C to 650 °C	0.1 °C 0.3 °C	Comparison with standard resistance
	651 °C to 1200 °C	2.7 °C	thermometer /
	651 °C to 1200 °C	None	thermocouple in block temperature bath
	200 °C to 400 °C	None	
	200 °C to 400 °C	None	
	200 °C to 400 °C	None	
	200 °C to 400 °C	None	
	-30 °C to 0 °C 0 °C to 200 °C 200 °C to 400 °C 400 °C to 600 °C	0.09 °C 0.083 °C 0.33 °C 0.75 °C	temperature block calibrator
	600 °C to 1200 °C	2.7 °C	
	30 °C to 200 °C 200 °C to 400 °C	0.2 °C 0.41 °C	Comparison with reference Pt100 in temperature block calibrator
Thermometer	None	None	Pt100 in liquid

Schedule

Issue date: 15 May 2025
Valid Until: -



NO: SAMM 862

Page: 4 of 7

Instrument Calibrated/Measurement Parameter	Range	Calibration and Measurement Capability Expressed as an Uncertainty ($\pm$)*	Remarks
With Indicator	None	None	Pt100 in liquid
	None	None	Pt100 in Ice
	None	None	Pt100 in Ice
	420 °C to 650 °C	0.20 °C	Thermocouple type S

Schedule

Issue date: 15 May 2025
Valid Until: -



NO: SAMM 862

Page: 5 of 7

SCOPE OF CALIBRATION : MASS

Instrument Calibrated/Measurement Parameter	Range	Calibration and Measurement Capability Expressed as an Uncertainty ($\pm$)*	Remarks
Standard Weight / Dead	200 g	3.6 mg	
Weighing Balances And	Up to 200 g	0.0008 g	Calibrated using
Weight	500 g 1000 g 2kg 5 kg 10 kg 20 kg	13 mg 0.03 g 0.04 g 0.09 g 2.0g 2.0g	Calibrated using Standard Weight sets and Mass Comparator
	5 kg	0.03 g	standard weight and
	10 kg	None	comparator based on
	20 kg	0.2g	OIML R111-1: 2004 (E)
	25 kg	0.2g	

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NO: SAMM 862

Page: 6 of 7

SCOPE OF CALIBRATION : PRESSURE

Instrument Calibrated/Measurement Parameter	Range	Calibration and Measurement Capability Expressed as an Uncertainty ($\pm$)*	Remarks
Device	None	None	
	None	None	
Hydraulic	20 bar to 100 bar	0.4 bar	Pressure Meter
	0 bar to 700 bar 0 bar to 1000 bar	0.14 bar 0.016 % of reading	Calibrated using deadweight tester or by comparison method according to MSA Test Method 1 and 2 - 2022
	0 bar to 700 bar 0 bar to 1000 bar	None	
	0 bar to 700 bar	0.59 bar	
	300 bar to 700 bar	0.1 bar	
	700 bar to 2500 bar	0.5 bar	
	300 bar to 700 bar	0.1 bar	
	700 bar to 2500 bar	0.46 bar	
Pneumatic	-0.9 bar to 2 bar 2 bar to 20 bar	0.0050 bar 0.03 bar	Calibrated using Pressure Calibrator & calibrator.
	0 bar to 10 bar	0.007 bar	calibrator
	0 bar to 10 bar	0.01 bar	
	-0.9 bar to 0 bar 0 bar to 0.07 bar 0 bar to 0.7 bar 0 bar to 7 bar abs 0 bar to 7 bar 0 bar to 20 bar	0.008 bar 0.000007 bar 0.00012 bar 0.0028 bar abs 0.003 bar 0.008 bar	Calibrated using reference pressure calibrator by comparison method according to MSA Test Method 1 and 2 -2022
	0 bar to 30 bar	0.011 bar	
	-0.9 bar to 0 bar 0 bar to 0.07 bar 0 bar to 0.7 bar 0 bar to 7 bar abs 0 bar to 7 bar 0 bar to 20 bar 0 bar to 30 bar	0.008 bar 0.000057 bar 0.00058 bar 0.0063 bar abs 0.0064 bar 0.018 bar 0.058 bar	Calibrated using reference pressure calibrator by comparison method according to MSA Test Method 1 and 2 - 2022
	70 mbar to 700 mbar 700 mbar to 7000 mbar 7 bar to 30 bar	0.16 mbar 1.9 mbar 0.009 bar	Calibrate by using reference gauge based on AS 1349 (1986)
	0 bar to 300 bar	0.09 bar	
	70 mbar to 700 mbar 700 mbar to 7000 mbar 7 bar to 30 bar	0.16 mbar 1.9 mbar 0.009 bar	Calibrate by using reference gauge based on AS 1349
	0 bar to 300 bar	0.09 bar	-1986
Pressure Measuring	None	None	

Schedule

Issue date: 15 May 2025
Valid Until: -



NO: SAMM 862

Page: 7 of 7

Instrument Calibrated/Measurement Parameter	Range	Calibration and Measurement Capability Expressed as an Uncertainty ($\pm$)*	Remarks
	None	None	

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