



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Measure Engineering Co., Ltd.
6/1 Korpai Soi, Radniyom Road, Nernpra District
Amphur Muang, Rayong Province
Thailand, 21150

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

CALIBRATION

This certificate is valid only when accompanied by a current scope of accreditation document.
The current scope of accreditation can be verified at www.anab.org.

Jason Stine, Vice President

Expiry Date: 06 September 2027

Certificate Number: AC-3237.02



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory
quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Measure Engineering Co., Ltd.

6/1 Korpai Soi, Radniyom Road, Nernpra District
Amphur Muang, Rayong Province
Thailand, 21150
Sarayuth Tochua, sarayuth@mit.in.th

CALIBRATION

ISO/IEC 17025 Accreditation Granted: **13 February 2025**

Certificate Number: **AC-3237.02** Certificate Expiry Date: **06 September 2027**

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
¹ Thermocouple-Temperature Generate (Source)	Type J (-180 to 1 080) °C Type K (-180 to 1 233) °C Type T (-200 to 400) °C Type E (-250 to 1 000) °C Type N (-200 to 1 300) °C Type R, S (0 to 1 767) °C Type B (600 to 1 820) °C	0.46 °C 0.48 °C 0.45 °C 0.45 °C 0.61 °C 1.3 °C 0.9 °C	Direct Measurement with: Multi-Product Calibrators, 8 1/2 Digital Multi-meter
¹ RTD Temperature (Source)	Pt 395, Pt385 (-180 to 800) °C	0.062 °C	Direct Measurement with: Multi-Product Calibrators, 8 1/2 Digital Multi-meter
¹ Temperature Transmitter RTD(Measurement)	(-180 to 800) °C	0.062 °C	Simulate by High Performance Multi-Product Calibrator

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
¹ Thermocouple (Measurement)	Type J (-180 to 1 080) °C	0.46 °C	Simulate by High Performance Multi-Product Calibrator
	Type K (-180 to 1 233) °C	0.48 °C	
	Type T (-200 to 400) °C	0.45 °C	
	Type E (-250 to 1 000) °C	0.45 °C	
	Type N (-200 to 1 300) °C	0.61 °C	
	Type R, S (0 to 1 767) °C	1.3 °C	
	Type B (600 to 1 820) °C	0.9 °C	
¹ Process Indicator & Controller	Up to 20 mA	0.005 mA+0.074 % of reading	Simulate by High Performance Multi-Product Calibrator
	Up to 10 V	0.005 V+0.06 % of reading	

Length – Dimensional Metrology

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
¹ Level Gauge / Level Transmitter	(0.1 to 1) m	0.000 85 m	Comparison Technique by Standard Sounding Tape
	(1 to 5) m	0.000 89 m	
	(5 to 10) m	0.000 99 m	
	(10 to 15) m	0.001 5 m	
	(15 to 20) m	0.001 7 m	
	(20 to 30) m	0.001 9 m	

Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Liquid Flow Meter (Indicator, Electrical Output) ¹ Mass & Volumetric Flow	Up to 10 m/s	0.000 34 m/s+0.17 % of reading	Comparison to Standard Ultrasonic Flow Meter

Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Liquid Flow Meter (Indicator, Electrical Output) ¹ Volumetric Flow Rate ¹ Volumetric Flow ¹ Mass Flow Rate ¹ Mass Flow	Up to 350 000 l/h Up to 60 000 l Up to 350 000 kg/h Up to 60 000 kg	0.000 5 l/h+0.1 % of reading 0.001 l+0.1 % of reading 0.005 kg/h+0.1 % of reading 0.001 kg+0.1 % of reading	Comparison to Meter Flow meter,
¹ Pressure Measuring Instruments (Digital, Analog, Electrical Output)	(-100 to 0) kPa (>0 to 100) kPa (>100 to 400) kPa (> 400 to 2 000) kPa (> 2000 to 7 000) kPa (> 7000 to 70 000) kPa	0.036 kPa 0.034 kPa 0.019 kPa 0.82 kPa 4.5 kPa 45 kPa	Comparison to Reference Pressure Calibrator
¹ Absolute Pressure	(0 to 7 000) mbar (0 to 700) kPa	1.1 mbar (0.11 kPa)	Comparison to Pressure Calibrator
¹ Pressure Switch & Safety Valve	(> 0 2000) kPa (> 2 000 to 7 000) kPa (> 7 000 to 70 000) kPa	0.58 kPa 4.1 kPa 40 kPa	Comparison to Calibrator

Thermodynamic

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
¹ Resistance Thermometer (With Indicator, Electrical Output)	(-80 to -38) °C (> -38 to 200) °C (> 200 to 600) °C	0.03 °C 0.015 °C 0.036 °C	Comparison to Standard Thermometer, Calibration Bath, Dry Block
¹ Dial Thermometer	(-40 to 0) °C (0 to 400) °C	0.09 °C 0.15 °C	Comparison to Standard Thermometer, Calibration Bath, Dry Block
¹ Thermocouple (With Indicator, Electrical Output)	Type R, S (0 to 200) °C (> 200 to 400) °C (> 400 to 650) °C (> 650 to 1 200) °C	0.2 °C 0.29 °C 0.42 °C 0.72 °C	Comparison to Thermometer, Calibration Bath, Dry Block

Thermodynamic

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
¹ Thermocouple (With Indicator, Electrical Output)	Type K, E, J, T, N		Comparison to Thermometer, Calibration Bath, Dry Block
	(-80 to -40) °C	0.34 °C	
	(> -40 to 50) °C	0.27 °C	
	(> 50 to 100) °C	0.40 °C	
	(> 100 to 125) °C	0.48 °C	
	(> 125 to 150) °C	0.56 °C	
	(> 150 to 175) °C	0.64 °C	
	(> 175 to 200) °C	0.73 °C	
	(> 200 to 300) °C	1.1 °C	
	(> 300 to 400) °C	1.4 °C	
	(> 400 to 450) °C	1.6 °C	
	(> 450 to 500) °C	1.8 °C	
	(> 500 to 550) °C	2 °C	
	(> 550 to 600) °C	2.1 °C	
	(> 600 to 650) °C	2.3 °C	
	(> 650 to 700) °C	2.7 °C	
	(> 700 to 800) °C	3 °C	
	(> 800 to 900) °C	3.4 °C	
	(> 900 to 1 000) °C	3.7 °C	
	(> 1 000 to 1 200) °C	4.4 °C	

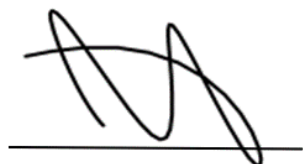
Time and Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
¹ Process Indicator & Controller	Up to 20 kHz	0.005 Hz+0.04 % of reading	Simulate by High Performance Multi-Product Calibrator

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 ($k=2$), corresponding to a confidence level of approximately 95%.

Notes:

- On-site calibration service is available for this parameter, since on-site conditions are typically more variable than those in the laboratory, larger measurement uncertainties are expected on-site than what is reported on the accredited scope.



Jason Stine, Vice President