Issue date: 24 June 2025
Valid Until: -

NO: SAMM 839
(Issue 2, 24 June 2025 replacement
of SAMM 839 dated 24 June 2025)

LABORATORY LOCATION/ CENTRAL OFFICE:	Nihon Denkei (M) Sdn. Bhd. Unit No. A-11-1, North Point Office Mid Valley City No. 1, Medan Syed Putra Utara 59200 WP Kuala Lumpur , 59200, WILAYAH PERSEKUTUAN KUALA LUMPUR MALAYSIA
ACCREDITED SINCE :	24 JUNE 2025
FIELD(S) OF CALIBRATION:	ELECTRICAL

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	Nihon Denkei (M) Sdn. Bhd. Unit No. A-11-1, North Point Office Mid Valley City No. 1, Medan Syed Putra Utara 59200 WP Kuala Lumpur , 59200, Wilayah Persekutuan Kuala Lumpur
FIELD(S) OF CALIBRATION :	ELECTRICAL,

SCOPE OF CALIBRATION : ELECTRICAL

Instrument Calibrated/Measurement Parameter	**Range**	**Calibration and Measurement Capability Expressed as an Uncertainty (±)***	**Remarks**
(b) Dc Current	100.1 nA to 1 mA 1.1 mA to 10 mA 10.1 mA to 100 mA 100.1 mA to 1 mA 1.1 mA to 10 mA 10.1 mA to 100 mA 100.1 mA to 1 A 1.1 A to 10 A	510 mA/A 510 mA/A 500 mA/A 500 mA/A 500 mA/A 500 mA/A 810 mA/A 1.3 mA/A	Measurement Using Multimeter Keysight 34470A

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Instrument Calibrated/Measurement Parameter	**Range**	**Calibration and Measurement Capability Expressed as an Uncertainty (±)***	**Remarks**
(c) Ac Voltage	40Hz to 50kHz 10.1 mV to 100 mV 100.1 mV to 1 V 1.1 V to 10 V 10.1 V to 100 V 100.1 V to 750 V	810 mV/V 790 mV/V 810 mV/V 810 mV/V 890 mV/V	Measurement Using Multimeter Keysight 34470A
(d) Ac Current	20Hz to 5kHz 10.1 mA to 100 mA 100.1 mA to 1 mA 1.1 mA to 10 mA 10.1 mA to 100 mA 100.1 mA to 1 A 1.1 A to 10 A	 1.0 mA/A 1.2 mA/A 1.2 mA/A 1.2 mA/A 1.1 mA/A 1.8 mA/A	Measurement Using Multimeter Keysight 34470A
Sources A) Dc Voltage	-0.1 mV to -100 mV -100.1 mV to -1 V -1.1 V to -10 V -10.1 V to -100 V -100.1 V to -1000 V 0.1 mV to 100 mV 100.1 mV to 1 V 1.1 V to 10 V 10.1 V to 100 V 100.1 V to 1000 V	40 µV/V 21 µV/V 18 µV/V 39 µV/V 39 µV/V 40 µV/V 21 µV/V 18 µV/V 39 µV/V 39 µV/V	Measurement Using Multimeter Keysight 34470A
(e) Resistance 2 Wire	0.1-„¦ to 100 ? 100.1-„¦ to 1 k? 1.1k-„¦ to 10 k? 10.1k-„¦ to 100 k? 100.1k-„¦ to 1 M? 1.1M-„¦ to10 M? 10.1M-„¦ to 100 M?	70 µ?/? 41 µ?/? 41 µ?/? 41 µ?/? 72 µ?/? 270 µ?/? 3.1 m?/?	Measurement Using Multimeter Keysight 34470A
(f) Resistance 4 Wire	0.1-„¦ to 100 ? 100.1-„¦ to 1 k? 1.1k-„¦ to 10 k? 10.1k-„¦ to 100 k? 100.1k-„¦ to 1 M? 1.1M-„¦ to10 M?	71 µ?/? 41 µ?/? 41 µ?/? 41 µ?/? 72 µ?/? 270 µ?/?	Measurement Using Multimeter Keysight 34470A
(g) Dc High Voltage	0.5 kV to 2.0 kV 2.1 kV to 4.0 kV 4.1 kV to 6.0 kV 6.1 kV to 8.0 kV 8.1 kV to 10.0 kV	8.0 mV/V 10 mV/V 9.0 mV/V 10 mV/V 10 mV/V	Measurement Using High Voltage Digital Meter Kikusui 149-10A

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Instrument Calibrated/Measurement Parameter	**Range**	**Calibration and Measurement Capability Expressed as an Uncertainty (±)***	**Remarks**
(h) Ac High Voltage At 50 Hz	0.5 kV to 2.0 kV 2.1 kV to 4.0 kV 4.1 kV to 6.0 kV 6.1 kV to 8.0 kV 8.1 kV to 10.0 kV	5.0 mV/V 5.0 mV/V 5.0 mV/V 5.0 mV/V 5.0 mV/V	Measurement Using High Voltage Digital Meter Kikusui 149-10A
(i) Leakage Dc Current	0.1 mA to 0.5 mA 0.51 mA to 1.0 mA 1.1 mA to 2.0 mA 2.1 mA to 5.0 mA	6.0 mA/A 5.1 mA/A 10 mA/A 10 mA/A	Measurement Using Current Calibrator For Withstanding VoltageTester TOS1200 and Multimeter Keysight 34470A
(j) Leakage Ac Current At 50 Hz	0.1 mA to 0.5 mA 0.51 mA to 1.0 mA 1.1 mA to 2.0 mA 2.1 mA to 5.0 mA 5.1 mA to 10.0 mA 10.1 mA to 20.0 mA 20.1 mA to 50.0 mA	7.0 mA/A 5.1 mA/A 10 mA/A 9.0 mA/A 10 mA/A 10 mA/A 7.1 mA/A	Measurement Using Current Calibrator For Withstanding Voltage Tester TOS1200 and Multimeter Keysight 34470A
Indicating Instruments (a) Insulation Resistance	10 k-„¦ to 100 k? 100 k-„¦ to 1000 k? 1 M-„¦ to 10 M? 10 M-„¦ to 100 M? 100 M-„¦ to 1000 M?	0.30 m?/? 0.30 m?/? 0.30 m?/? 3.1 m?/? 0.70 m?/?	Generating using Decade Resistance Box IET HRRS-B-5-10k

SITE LOCATION (HQ)	1. CATEGORY I
FIELD(S) OF CALIBRATION :	ELECTRICAL

SCOPE OF CALIBRATION : ELECTRICAL

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques	Remarks
(b) Dc Current	100.1 nA to 1 mA 1.1 mA to 10 mA 10.1 mA to 100 mA 100.1 mA to 1 mA 1.1 mA to 10 mA 10.1 mA to 100 mA 100.1 mA to 1 A 1.1 A to 10 A	510 mA/A 510 mA/A 500 mA/A 500 mA/A 500 mA/A 500 mA/A 810 mA/A 1.3 mA/A	Measurement Using Multimeter Keysight 34470A
(c) Ac Voltage	40Hz to 50kHz 10.1 mV to 100 mV 100.1 mV to 1 V 1.1 V to 10 V 10.1 V to 100 V 100.1 V to 750 V	810 mV/V 790 mV/V 810 mV/V 810 mV/V 890 mV/V	Measurement Using Multimeter Keysight 34470A
(d) Ac Current	20Hz to 5kHz 10.1 mA to 100 mA 100.1 mA to 1 mA 1.1 mA to 10 mA 10.1 mA to 100 mA 100.1 mA to 1 A 1.1 A to 10 A	1.0 mA/A 1.2 mA/A 1.2 mA/A 1.2 mA/A 1.1 mA/A 1.8 mA/A	Measurement Using Multimeter Keysight 34470A
Sources a) Dc Voltage	-0.1 mV to -100 mV -100.1 mV to -1 V -1.1 V to -10 V -10.1 V to -100 V -100.1 V to -1000 V	40 mV/V 21 mV/V 18 mV/V 39 mV/V 39 mV/V	Measurement Using Multimeter Keysight 34470A
	0.1 mV to 100 mV 100.1 mV to 1 V 1.1 V to 10 V 10.1 V to 100 V 100.1 V to 1000 V	40 mV/V 21 mV/V 18 mV/V 39 mV/V 39 mV/V	Measurement Using Multimeter Keysight 34470A
(g) Dc High Voltage	0.5 kV to 2.0 kV 2.1 kV to 4.0 kV 4.1 kV to 6.0 kV 6.1 kV to 8.0 kV 8.1 kV to 10.0 kV	8.0 mV/V 10 mV/V 9.0 mV/V 10 mV/V 10 mV/V	Measurement Using High Voltage Digital Meter Kikusui 149-10A
(h) Ac High Voltage At 50 Hz	0.5 kV to 2.0 kV 2.1 kV to 4.0 kV 4.1 kV to 6.0 kV 6.1 kV to 8.0 kV 8.1 kV to 10.0 kV	5.0 mV/V 5.0 mV/V 5.0 mV/V 5.0 mV/V 5.0 mV/V	Measurement Using High Voltage Digital Meter Kikusui 149-10A

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques	Remarks
(i) Leakage Dc Current	0.1 mA to 0.5 mA 0.51 mA to 1.0 mA 1.1 mA to 2.0 mA 2.1 mA to 5.0 mA	6.0 mA/A 5.1 mA/A 10 mA/A 10 mA/A	Measurement Using Current Calibrator For Withstanding VoltageTester TOS1200 and MUltimeter Keysight 34470A
(j) Leakage Ac Current At 50 Hz	0.1 mA to 0.5 mA 0.51 mA to 1.0 mA 1.1 mA to 2.0 mA 2.1 mA to 5.0 mA 5.1 mA to 10.0 mA 10.0 mA to 20.0 mA 20.1 mA to 50.0 mA	7.0 mA/A 5.1 mA/A 10 mA/A 9.0 mA/A 10 mA/A 10 mA/A 7.1 mA/A	Measurement Using Current Calibrator For Withstanding Voltage Tester TOS1200 and Multimeter Keysight 34470A
Indicating Instruments (a)insulation Resistance	10 k-„¦ to 100 k? 100 k-„¦ to 1000 k? 1 M-„¦ to 10 M? 10 M-„¦ to 100 M? 100 M-„¦ to 1000 M?	0.30 m?/? 0.30 m?/? 0.30 m?/? 3.1 m?/? 0.70 m?/?	Generating using Decade Resistance Box IET HRRS-B-5-10k
(e) Resistance 2 Wire	0.1-„¦ to 100 ? 100.1-„¦ to 1 k? 1.1k-„¦ to 10 k? 10.1k-„¦ to 100 k? 100.1k-„¦ to 1 M? 1.1M-„¦ to10 M? 10.1M-„¦ to 100 M?	70 µ?/? 41 µ?/? 41 µ?/? 41 µ?/? 72 µ?/? 270 µ?/? 3.1 m?/?	Measurement Using Multimeter Keysight 34470A
(f) Resistance 4 Wire	0.1-„¦ to 100 ? 100.1-„¦ to 1 k? 1.1k-„¦ to 10 k? 10.1k-„¦ to 100 k? 100.1k-„¦ to 1 M? 1.1M-„¦ to10 M?	71 µ?/? 41 µ?/? 41 µ?/? 41 µ?/? 72 µ?/? 270 µ?/?	Measurement Using Multimeter Keysight 34470A