CERTIFICATE OF ACCREDITATION

This is to attest

GEOSAR W.L.L

UNIT NO 183, BUILDING 2000, ROAD 1527, BLOCK 115
HIDD, 115, BAHRAIN

Calibration Laboratory CL-288

has met the requirements of AC204, *IAS Accreditation Criteria for Calibration Laboratories*, and has demonstrated compliance with ISO/IEC Standard 17025:2017, *General requirements for the competence of testing and calibration laboratories*. This organization is accredited to provide the services specified in the scope of accreditation.

Expiration Date July 1, 2027
Effective Date September 27, 2026

International Accreditation Service
Issued under the authority of IAS management

Visit www.iasonline.org for current accreditation information.

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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GEOSAR W.L.L

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Accredited to ISO/IEC 17025:2017 *Effective Date September 27, 2026*

CALIBRATION AND MEASUREMENT CAPABILITY (CMC)*

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
Dimensional			
External Micrometer	0 mm to 25 mm 0 mm to 300 mm	1.6 µm 3.9 µm	Comparison using Grade '0'Gage blocks
Calipers (Vernier & Digital)	0 mm to 300 mm	9.1 µm	Comparison using Grade '0'Gage blocks and Grade '0' long gage blocks
Height Gauges	0 mm to 300 mm	7.1 µm	Comparison using Grade '0'Gage blocks and Gage Block accessories
Dial Gauges	0 mm to 25 mm	6.0 µm	Using Dial Gauge Calibrator by Direct method
Mechanical			
Vacuum[5] (Pressure Gauges, Pressure Recorders, Pressure Transmitter, Pressure Switches)	-0.9 bar to 0 bar	0.02 bar	Using Digital Pressure Indicator and Comparator pump by Comparison Method
Pneumatic Pressure[5] (Pressure Gauges, Pressure Recorders, Pressure Transmitter, Pressure Switches)	0 bar to 20 bar	0.03 bar	Using Digital Pressure Indicator and Comparator pump by Comparison Method
Hydraulic Pressure[5] (Pressure Gauges, Pressure Recorders, Pressure Transmitter, Pressure Switches)	0 bar to 1000 bar	0.12 bar	Using Digital Pressure Indicator and Comparator pump by Comparison Method
Weighing Balance[5]	1 kg to 10 kg	0.06 g	Using F1 Class Weights by Direct Method

** If information in this CMC is presented in non-SI units, the conversion factors stated in NIST Special Publication 811 "Guide for the Use of the International System of Units (SI)" apply.*

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
	10 kg to 500 kg	0.6 kg	Using M1 Class Weights by Direct Method
Torque Wrench	5 Nm to 100 Nm 100 Nm to 500 Nm	1.2 Nm 3.5 Nm	Using Torque Wrench Calibration System by Direct method
Pressure Relief Valve[5]	0 bar to 1000 bar	0.14 bar	Using of Digital Pressure gage with pressure comparator
Thermal			
Temperature Indicator/ Controller with or without Sensor, Temperature Gauge, Thermometer (Stick Type / Glass/Digital)[5]	-30 °C to 120 °C 150 °C to 600 °C	0.16 °C 1.8 °C	Using Temperature Bath by Direct Method
Electrical – DC/LF			
DC Voltage Generate[3]	1 mV to 10 mV 10 mV to 1 V 1 V to 100 V 100 V to 500 V 500 V to 1000 V	0.021 mV 0.06 mV 1.8 mV 0.015 V 0.027 V	Direct method using Electrical Multifunction Calibrator
AC Voltage Generate[3] at 50 Hz	1 mV to 10 mV 10 mV to 100 mV 100 mV to 1 V 1 V to 100 V 100 V to 1000 V	0.02 mV 0.04 mV 2 mV 2.5 mV 0.04 V	Direct method using Electrical Multifunction Calibrator
AC Current Generate[3] at 50 Hz	1 mA to 10 mA 10 mA to 100 mA 100 mA to 5 A 5 A to 500 A	0.004 mA 0.04 mA 2.7 mA 0.58 A	Direct method using Electrical Multifunction Calibrator and Current Coil
AC Voltage Measure[3] at 50 Hz	1 mV to 10 mV 10 mV to 100 mV 100 mV to 1 V 1 V to 100 V 100 V to 1000 V	0.02 mV 0.08 mV 0.4 mV 0.005 V 0.08 V	Direct method using 6.5 Digit Precision Multimeter
AC Current Measure[3] at 50 Hz	1 mA to 10 mA 10 mA to 100 mA 100 mA to 1 A 1 A to 10 A	0.022 mA 0.19 mA 0.02 A 0.19 A	Direct method using 6.5 Digit Precision Multimeter
DC Resistance Generate[3]	1 Ω to 10 Ω 10 Ω to 1 kΩ 1 kΩ to 1 MΩ 1 MΩ to 10 MΩ 10 MΩ to 100 MΩ	0.012 Ω 0.0022 kΩ 0.023 MΩ 0.026 MΩ 0.32 MΩ	Direct method using decade Resistance Box

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY[1,2] (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
DC Resistance Measure[4]	0.5 kΩ to 1 kΩ 1 kΩ to 10 kΩ 10 kΩ to 100 kΩ 100 kΩ to 1 MΩ 1 MΩ to 25 MΩ 25 MΩ to 50 MΩ 50 MΩ to 100 MΩ	0.19 Ω 1.2 Ω 0.021 kΩ 0.71 kΩ 0.005 MΩ 0.82 MΩ 24 MΩ	Direct method using 6.5 Digit Precision Multimeter
Simulated Temperature Thermocouple Generate Type K	-190 °C to 1370°C	0.6°C	Using of Portable Multi-function calibrator (Stek)
Chemical/Gas			
Portable Gas Detector (Multigas)	Hydrogen Sulfide: 25 ppm Carbon Monoxide: 100 ppm Methane: 2.5 % Oxygen: 18 %	0.8 X 10^{-6} 2.1 X 10^{-6} 2.1 % 2.1 %	Using Standard Gases by Direct method
pH Meter	4.00 pH 7.00 pH 10.00 pH	0.02 pH 0.023 pH 0.032 pH	Direct Method Using Reference Buffer solution
Conductivity Meter (TDS)	180 µS/cm	0.75 µS/cm	Direct Method Using Reference Buffer solution

[1]The uncertainty covered by the Calibration and Measurement Capability (CMC) is expressed as the expanded uncertainty having a coverage probability of approximately 95 %. It is the smallest measurement uncertainty that a laboratory can achieve within its scope of accreditation when performing calibrations of a best existing device. The measurement uncertainty reported on a calibration certificate may be greater than that provided in the CMC due to the behavior of the calibration item and other factors that may contribute to the uncertainty of a specific calibration.

[2]When uncertainty is stated in relative terms (such as percent, a multiplier expressed as a decimal fraction or in scientific notation), it is in relation to instrument reading or instrument output, as appropriate, unless otherwise indicated.

[3]Capability is suitable for the calibration of measuring devices in the stated ranges.

[4]Capability is suitable for the calibration of devices intended to generate the indicated quantity in the stated ranges.

[5]Also available as site calibration. Note that actual measurement uncertainties achievable at a customer's site can normally be expected to be larger than the uncertainties listed on this Scope of Accreditation.