PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Organization of:

HSM Sistemas de Metrología, S. de R.L. de C.V.

Carretera Estatal 431, km 1 + 93, Europark II Bodega 25C, El Colorado
Municipio de El Marqués, Querétaro, México. C.P. 76246

and hereby declares that the Organization is accredited in accordance with the recognized International Standard:

ISO/IEC 17025:2017

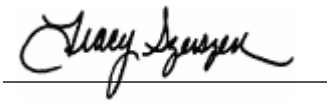
Whereby, technical competence has been confirmed for the associated scope supplement, in the fields of:

Dimensional, Mechanical, Fluid Quantities, Chemical, Optical, Mass, Force and Weighing Devices, Thermodynamic, Time and Frequency and Electrical Calibration

(As detailed in the supplement)

Accreditation claims for conformity assessment activities shall only be made from the addresses referenced within this certificate and shall apply solely to those activities identified in the related scope. This Accreditation is granted subject to the Accreditation Body rules governing the Accreditation referred to above, and the Organization hereby commits to observing and complying with those rules in their entirety.

For PJLA:



Tracy Szerszen
President

Perry Johnson Laboratory
Accreditation, Inc. (PJLA)
755 W. Big Beaver, Suite 1325
Troy, Michigan 48084

Initial Accreditation Date:	*Issue Date:*	*Expiration Date:*
January 14, 2019	July 11, 2025	July 31, 2027

Accreditation No.:	*Certificate No.:*
102290	L25-529

The validity of this certificate is maintained through ongoing assessments based on a continuous accreditation cycle. The validity of this certificate should be confirmed through the PJLA website: www.pjlabs.com

Certificate of Accreditation: Supplement

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Carretera Estatal 431, km 1 + 93, Europark II Bodega 25C, El Colorado
Municipio de El Marqués, Querétaro, México. C.P. 76246
Contact Name: Francisco Hernandez Phone: 442-195-9668

Accreditation is granted to the facility to perform the following conformity assessment activities:

FIELD OF CALIBRATION	MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	EXPANDED MEASUREMENT UNCERTAINTY (±) [1]	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED	FLEX CODE	LOCATION OF ACTIVITY
Dimensional	Calipers	1 mm to 1 000 mm	(5 + 0.009L) µm	Gage Blocks Mitutoyo, Starret RS81B Shars 303-5311C / Check Master Mitutoyo	513-359 JIS7516	F1, F2	F, O
Dimensional	Depth Calipers	1 mm to 600 mm	(5 + 0.005L) µm	Gage Blocks Mitutoyo, Starret RS81B Shars 303-5311C / Check Master Mitutoyo	513-359 JIS7516	F1, F2	F, O
Dimensional	Outside / Inside Micrometers	1 mm to 600 mm	(0.67 + 0.009L) µm	Gage Blocks Mitutoyo, Starret RS81B Shars 303-5311C / Check Master Mitutoyo	513-359 JIS7516	F1, F2	F, O
Dimensional	Thickness Gage	0.01 mm to 5 mm	(0.4 + 0.005L) µm	Micrometer	JIS B 7524	F1, F2	F, O
Dimensional	Thickness Foils	0.005 mm to 25 mm	(0.55 + 4 x 10^{-3}L) µm	Inductive Probe Sylvac P5i Digital Display Sylvac D70I	JIS B 7502	F1, F2	F, O
Dimensional	Thickness Meter	0.001 mm to 25 mm	(1.6 + 0.01L) µm	Thickness Foil	ASTM-B499	F1, F2	F, O
Dimensional	Thickness Meter	0.001 mm to 100 mm	(0.6 + 0.01L) µm	Gage blocks	ASTM-B499	F1, F2	F, O
Dimensional	Depth Micrometers	1 mm to 600 mm	(0.95 + 0.01L) µm	Gage Blocks Mitutoyo Starret RS81B, Shars 303-311C Height Master Mitutoyo 513-359	JIS 7502	F1, F2	F, O
Dimensional	Digital and Dial Indicators	0.001 mm to 80 mm (Res.= 0.001 mm)	(0.67 + 0.01L) µm	Dial Gage Tester Mitutoyo 170-102-12	JIS 7533	F1, F2	F, O

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Dimensional	Digital and Dial Indicators	Up to 100 mm (Res.= 0.0001 mm)	(0.14 + 0.01L) µm	Gauge Block	JIS 7533	F1, F2	F, O
Dimensional	Digital and Dial Indicators	0.01 mm to 25 mm (Res.= 0.01 mm)	5 µm	Dial Gage Tester Mitutoyo 170-102-12	JIS 7533	F1, F2	F, O
Dimensional	Digital and Dial Indicators	1 mm to 25 mm (Res.= 0.01 mm)	(5 + 0.08L) µm	Gage Blocks Mitutoyo Starret RS81B	Shars 303-5311C	F1, F2	F, O
Dimensional	Height Gages	1 mm to 600 mm	(1 + 2.5 x 10^{-3}L) µm	Dial Gage Tester Mitutoyo 170-102-12	JIS 7517	F1, F2	F, O
Dimensional	Steel Rules	0.01 mm to 300 mm (Res.= 0.01 mm)	0.05 mm	Gage Blocks, Mitutoyo, Starret RS81B, Shars 303-5311C, Dimensional Digital scale	JIS7516	F1, F2	F, O
Dimensional	Steel Rules	0.5 mm to 1 000 mm (Res.= 0.005 mm)	(0.1 + 2 x 10^{-4}L) mm	Gage Blocks, Mitutoyo, Starret RS81B, Shars 303-5311C, Dimensional Digital scale	JIS7516	F1, F2	F, O
Dimensional	Flexible Tape	5 mm to 20 000 mm	(0.1 + 2 x 10^{-4}L) mm	Gage Blocks, Mitutoyo, Starret RS81B, Shars 303-5311C, Dimensional Digital scale	JIS7516	F1, F2	F, O
Dimensional	Glass Rule	5 mm to 1 000 mm	0.05 mm	Dimensional Digital Scale Guide	CENAM Technical	F1, F2	F
Dimensional	Dial Thickness Gage	1 mm to 50.8 mm (Res.= 0.001 mm)	(0.6 + 4 x 10^{-3}L) µm	Gage Blocks Mitutoyo Starret RS81B Shars 303-5311C	JIS7503	F1, F2	F, O

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Dimensional	Digital and Dial Indicators	Up to 100 mm (Res.= 0.0001 mm)	(0.14 + 0.01L) µm	Gauge Block	JIS 7533	F1, F2	F, O
Dimensional	Digital and Dial Indicators	0.01 mm to 25 mm (Res.= 0.01 mm)	5 µm	Dial Gage Tester Mitutoyo 170-102-12 JIS 7533	JIS 7533	F1, F2	F, O
Dimensional	Digital and Dial Indicators	1 mm to 25 mm (Res.= 0.01 mm)	(5 + 0.08L) µm	Gage Blocks Mitutoyo Starret RS81B	Shars 303-5311C	F1, F2	F, O
Dimensional	Height Gages	1 mm to 600 mm	(1 + 2.5 x 10^{-3}L) µm	Dial Gage Tester Mitutoyo 170-102-12	JIS 7517	F1, F2	F, O
Dimensional	Steel Rules	0.01 mm to 300 mm (Res.= 0.01 mm)	0.05 mm	Gage Blocks, Mitutoyo, Starret RS81B, Shars 303-5311C, Dimensional Digital scale	JIS7516	F1, F2	F, O
Dimensional	Steel Rules	0.5 mm to 1 000 mm (Res.= 0.005 mm)	(0.1 + 2 x 10^{-4}L) mm	Gage Blocks, Mitutoyo, Starret RS81B, Shars 303-5311C, Dimensional Digital scale	JIS7516	F1, F2	F, O
Dimensional	Flexible Tape	5 mm to 20 000 mm	(0.1 + 2 x 10^{-4}L) mm	Gage Blocks, Mitutoyo, Starret RS81B, Shars 303-5311C, Dimensional Digital scale	JIS7516	F1, F2	F, O
Dimensional	Glass Rule	5 mm to 1 000 mm	0.05 mm	Dimensional Digital Scale Guide	CENAM Technical	F1, F2	F
Dimensional	Optical Comparators (Angularity)	360°	0.014°	Angle Gage Blocks	JIS7184	F1, F2	F, O

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Dimensional	Optical Comparators (Axial Squareness)	76 mm Displacement	(2.4 + 0.025L) µm	Glass Scale Mitutoyo 182-514-10, JIS7184	JIS7184	F1, F2	F, O
Dimensional	Length Measurement Bars	1 mm to 500 mm	(0.6 + 0.01L) µm	Gage Blocks, Inductive Senso	HSM –PR-DI-17	F1, F2	F
Dimensional	Gauge Block (Grade 1 and 2)	1 mm to 100 mm	(1.8 x 10-5 + 2 x 10^{-6}L) mm	Grade 0 Block and Inductive Probe Sensors	HSM-PR-DI-17 ISO-3650	F1, F2	F
Dimensional	Pin Gages	1 mm to 100 mm	0.4 µm	High Accuracy Micrometer, Inductive Probe Sensors	ASME B89.1.5	F1, F2	F
Dimensional	Roughness Meter (RA)	2.91 µm	0.028 µm	Roughness Standard	JIS B 0601	F1, F2	F, O
Dimensional	Roughness Meter (Ry)	9.2 µm	0.05 µm	Roughness Standard	JIS B 0601	F1, F2	F, O
Dimensional	Angularity, Goniometer, Protractor	10° to 90°	0.014°	Angle Gage Blocks	NMX-CH-151-IMNC	F1, F2	F, O
Mechanical	Indirect Verification of Rockwell Hardness Machines HRC	20 HRC to 100 HRC	0.38 HRC	Hardness Test Blocks	Euramet cg-16	F1, F2	F, O
Mechanical	Indirect Verification of Rockwell Hardness Machines HRBW	40 HRBW to 100 HRBW	1.2 HRBW	Hardness Test Blocks	Euramet cg-16	F1, F2	F, O
Mechanical	Pressure Vacuum	-80 kPa to 0 kPa	0.07 kPa	Digital Pressure Gage Additel ADT673 Hydraulic Pump Crystal Gauge Pump XP	Euramet-cg-17	F1, F2	F, O

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Mechanical	Pressure Meter	2 Pa to 200 Pa	0.011 Pa	Digital Pressure Gage Crystal 300PSIXP2I Hydraulic Pump Crystal Gauge Pump XP	Euramet-cg-17	F1, F2	F, O
Mechanical	Pressure Meter	200 Pa to 2 000 Pa	0.12 Pa	Digital Pressure Gage Crystal 300PSIXP2I Hydraulic Pump Crystal Gauge Pump XP	Euramet-cg-17	F1, F2	F, O
Mechanical	Pressure Meter	0.2 MPa to 2.07 MPa	0.000 5 MPa	Digital Pressure Gage Additel ADT673 Hydraulic Pump Crystal Gauge Pump XP	Euramet-cg-17	F1, F2	F, O
Mechanical	Pressure Meter	2.07 MPa to 70 MPa	4.2 kPa	Digital Pressure Gage Crystal 10000PSIXP2I, Hydraulic Pump Crystal Gauge Pump XP	Euramet-cg-17	F1, F2	FO
Mechanical	Verification of the Shore Durometer Spring Force (Type A, D)	0.55 N to 8.05 N	0.32 N	Load Cell	CENAM Technical Guide	F1, F2	F, O
Mechanical	Torque Tools, Electrical and Pneumatic Screwdriver, Bottle Cap Torque Tester (Dynamic and Static Torque)	0.3 N·m to 1.29 N·m	0.65 % of reading	Mountz Torque Analyzer	ISO 6789	F1, F2	F, O

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Mechanical	Torque Tools, Electrical and Pneumatic Screwdriver, Bottle Cap Torque Tester (Dynamic and Static Torque)	1.3 N·m to 11.35 N·m	0.25 % of reading	Mountz Torque Analyzer	ISO 6789	F1, F2	F, O
Mechanical	Torque Tools, Electrical and Pneumatic Screwdriver, Bottle Cap Torque Tester (Dynamic and Static Torque)	11.35 N·m to 135.6 N·m	0.25 % of reading	Mountz Torque Analyzer	ISO 6789	F1, F2	F, O
Mechanical	Torque Tools, Electrical and Pneumatic Screwdriver, Bottle Cap Torque Tester (Dynamic and Static Torque)	135.6 N·m to 736 N·m	0.3 % of reading	Mountz Torque Analyzer	ISO 6789	F1, F2	F, O
Fluid Quantities	Burette	5 mL to 100 mL	$(4.8 \times 10^{-3} + 1.71 \times 10^{-4}V)$ mL	Analytical Balance A&D Company HR-200 Double Distilled Water Karal 3044	CENAM Technical Guide	F1, F2	F

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Fluid Quantities	Test Tube	100 mL	0.95 mL	Analytical Balance A&D Company HR-200 Double Distilled Water Karal 3044	CENAM Technical Guide	F1, F2	F
Fluid Quantities	Pipette	1 mL to 100 mL	$(2.2 \times 10^{-3} + 1.19 \times 10^{-4}V)$ mL	Analytical Balance A&D Company HR-200 Double Distilled Water Karal 3044	CENAM Technical Guide	F1, F2	F
Fluid Quantities	Piston Pipette	0.1 mL to 10 mL	$(4.9 \times 10^{-4} + 1.87 \times 10^{-4}V)$ mL	Analytical Balance A&D Company HR-200 Double Distilled Water Karal 3044	CENAM Technical Guide	F1, F2	F
Fluid Quantities	Piston Burette	1 mL to 100 mL	$(2 \times 10^{-3} + 4.75 \times 10^{-4}V)$ mL	Analytical Balance A&D Company HR-200 Double Distilled Water Karal 3044	CENAM Technical Guide	F1, F2	F
Fluid Quantities	Volumetric Flask	1 mL to 100 mL	$(8.2 \times 10^{-3} + 1.19 \times 10^{-4}V)$ mL	Analytical Balance A&D Company HR-200 Double Distilled Water Karal 3044	CENAM Technical Guide	F1, F2	F
Chemical	pH Meter	4 pH	0.02 pH	Reference Material Cole Parmer	CENAM Technical Guide	F1, F2	F, O
Chemical	pH Meter	7 pH	0.12 pH	Reference Material Cole Parmer	CENAM Technical Guide	F1, F2	F, O
Chemical	pH Meter	10 pH	0.22 pH	Reference Material Cole Parmer	CENAM Technical Guide	F1, F2	F, O

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Chemical	Conductivity Meter	84.1 µS/cm	0.96 µS/cm	Reference Material, Ricca Chemical	CENAM Technical Guide	F1, F2	F, O
Chemical	Conductivity Meter	12.88 mS/cm	0.06 mS/cm	Reference Material, Ricca Chemical	CENAM Technical Guide	F1, F2	F, O
Chemical	Conductivity Meter	1 413 µS/cm	6.1 µS/cm	Reference Material Control Company	CENAM Technical Guide	F1, F2	F, O
Chemical	Kinematic Viscosity	255.8 mm^2/s	0.29 %	Cannon Certified Viscosity Reference Standard c100, Thermometer, StopWatch	ASTM D7945 ASTM D6299 ASTM D446 ASTM D445 ASTM D1200 ASTM D4212 ASTM D7279 ASTM D88	F1, F2	F, O
Chemical	Kinematic Viscosity	230.4 mm^2/s	0.26 %	Cannon Certified Viscosity Reference Standard N100, Thermometer, StopWatch	ASTM D7945 ASTM D6299 ASTM D446 ASTM D445 ASTM D1200 ASTM D4212 ASTM D7279 ASTM D88	F1, F2	F, O

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Chemical	Kinematic Viscosity	94 mm^2/s	0.22 %	Cannon Certified Viscosity Reference Standard RT100, Thermometer, StopWatch	ASTM D7945 ASTM D6299 ASTM D446 ASTM D445 ASTM D1200 ASTM D4212 ASTM D7279 ASTM D88	F1, F2	F, O
Chemical	Kinematic Viscosity	510.2 mm^2/s	0.29 %	Cannon Certified Viscosity Reference Standard Rt 500 Thermometer, StopWatch	ASTM D7945 ASTM D6299 ASTM D446 ASTM D445 ASTM D1200 ASTM D4212 ASTM D7279 ASTM D88	F1, F2	F, O
Chemical	Kinematic Viscosity	1 012 mm^2/s	0.38 %	Cannon Certified Viscosity Reference Standard Rt1 000 Thermometer, StopWatch	ASTM D7945 ASTM D6299 ASTM D446 ASTM D445 ASTM D1200 ASTM D4212 ASTM D7279 ASTM D88	F1, F2	F, O

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Chemical	Kinematic Viscosity	5 147 mm^2/s	0.38 %	Cannon Certified Viscosity Reference Standard Rt5 000 Thermometer, StopWatch	ASTM D7945 ASTM D6299 ASTM D446 ASTM D445 ASTM D1200 ASTM D4212 ASTM D7279 ASTM D88	F1, F2	F, O
Chemical	Kinematic Viscosity	12 020 mm^2/s	0.44 %	Cannon Certified Viscosity Reference Standard Rt12 500 Thermometer, Stop Watch	ASTM D794 ASTM D6299 ASTM D446 ASTM D445 ASTM D1200 ASTM 4212 ASTM D7279 ASTM D88	F1, F2	F, O
Optical	Refractometer Meter (@ 25 °C)	0 % Brix	0.16 % Brix	Certified Reference Material	OIMLR108	F1, F2	F, O
Optical	Refractometer Meter (@ 25 °C)	2.5 % Brix	0.17 % Brix	Certified Reference Material	OIMLR108	F1, F2	F, O
Optical	Refractometer Meter (@ 25 °C)	5 % Brix	0.17 % Brix	Certified Reference Material	OIMLR108	F1, F2	F, O
Optical	Refractometer Meter (@ 25 °C)	7.5 % Brix	0.17 % Brix	Certified Reference Material	OIMLR108	F1, F2	F, O
Optical	Refractometer Meter (@ 25 °C)	10 % Brix	0.17 % Brix	Certified Reference Material	OIMLR108	F1, F2	F, O

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Optical	Refractometer Meter (@ 25 °C)	15 % Brix	0.17 % Brix	Certified Reference Material	OIMLR108	F1, F2	F, O
Mass, Force and Weighing Devices	Equipment to Source & Measure Force (Compression and Tension)	Up to 100 kgf	(0.03 % reading + 2 x 10^{-4}F) kgf	Weight Set F1 and M1	ISO 7500	F1, F2	F, O
Mass, Force and Weighing Devices	Equipment to Source & Measure Force (Compression and Tension)	10 kgf to 500 kgf	(0.03 % of reading + 2 x 10^{-4}F) kgf	Load Cells	ISO 7500	F1, F2	F, O
Mass, Force and Weighing Devices	Balances & Scales	0.001 g to 50 g (Res.= 0.000 5 g)	(0.86 + 5.4 x 10^{-3}Wt) mg	Weight Master Class F1	Euramet-cg 18	F1, F2	O
Mass, Force and Weighing Devices	Balances & Scales	0.01 g to 150 g (Res.= 0.002 g)	(1.7 + 3.6 x 10^{-3}Wt) mg	Weight Master Class F1	Euramet-cg 18	F1, F2	O
Mass, Force and Weighing Devices	Balances & Scales	0.025 g to 500 g (Res.= 0.005 g)	(4.3 + 2.5 x 10^{-3}Wt) mg	Weight Master Class F1	Euramet-cg 18	F1, F2	O
Mass, Force and Weighing Devices	Balances & Scales	0.05 g to 1 kg (Res.= 0.01 g)	(8.8 + 2.5 x 10^{-3}Wt) mg	Weight Master Class F1	Euramet-cg-18	F1, F2	O
Mass, Force and Weighing Devices	Balances & Scales	0.1 g to 2 kg (Res.= 0.02 g)	(17.7 + 2.5 x 10^{-3}Wt) mg	Weight Master Class F1	Euramet-cg-18	F1, F2	O
Mass, Force and Weighing Devices	Balances & Scales	0.25 g to 5 kg (Res.= 0.05 g)	(43.6 + 2.5 x 10^{-3}Wt) mg	Weight Master Class F1	Euramet-cg-18	F1, F2	O
Mass, Force and Weighing Devices	Balances & Scales	0.5 g to 1 kg (Res.= 0.1 g)	(84 + 26 x 10^{-3}Wt) mg	Weight Master Class F1	Euramet-cg-18	F1, F2	O
Mass, Force and Weighing Devices	Balances & Scales	1 g to 2 kg (Res.= 0.2 g)	(0.16 + 26 x 10^{-6}Wt) g	Weight Master Class F1	Euramet-cg-18	F1, F2	O

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Municipio de El Marqués, Querétaro, México. C.P. 76246
Contact Name: Francisco Hernandez Phone: 442-195-9668

Accreditation is granted to the facility to perform the following conformity assessment activities:

FIELD OF CALIBRATION	MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	EXPANDED MEASUREMENT UNCERTAINTY (±) 1	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED	FLEX CODE	LOCATION OF ACTIVITY
Mass, Force and Weighing Devices	Balances & Scales	0.25 g to 5 kg (Res.= 0.5 g)	(0.42 + 26 x 10^{-6}Wt) g	Weight Master Class F1	Euramet-cg-18	F1, F2	O
Mass, Force and Weighing Devices	Balances & Scales	10 g to 12 kg (Res.= 2 g)	(1.7 + 44.5 x 10^{-6}Wt) g	Weight Master Class F1	Euramet-cg-18	F1, F2	O
Mass, Force and Weighing Devices	Balances & Scales	25 g to 30 kg (Res.= 5 g)	(4.2 + 44.5 x 10^{-6}Wt) g	Weight Master Class F1 and M1	Euramet-cg-18	F1, F2	O
Mass, Force and Weighing Devices	Balances & Scales	50 g to 10 kg (Res.= 10 g)	(8.4 + 0.25 x 10^{-3}Wt) g	Weight Master Class F1 and M1	Euramet-cg-18	F1, F2	O
Mass, Force and Weighing Devices	Balances & Scales	100 g to 20 kg (Res.= 20 g)	(16.5 + 0.26 x 10^{-3}Wt) g	Weight Master Class F1 and M1	Euramet-cg-18	F1, F2	O
Mass, Force and Weighing Devices	Balances & Scales	250 g to 50 kg (Res.= 50 g)	(42 + 0.26 x 10^{-3}Wt) g	Weight Master Class F1 and M1	Euramet-cg-18	F1, F2	O
Mass, Force and Weighing Devices	Balances & Scales	500 g to 100 kg (Res.= 100 g)	(83 + 0.26 x 10^{-3}Wt) g	Weight Master Class F1 and M1	Euramet-cg-18	F1, F2	O
Mass, Force and Weighing Devices	Balances & Scales	1 000 g to 500 kg (Res.= 200 g)	(166 + 0.26 x 10^{-3}Wt) g	Weight Master Class F1 and M1	Euramet-cg-18	F1, F2	O
Mass, Force and Weighing Devices	Balances & Scales	2 500 g to 500 kg (Res.= 500 g)	(420 + 0.65 x 10^{-3}Wt) g	Weight Master Class F1 and M1	Euramet-cg-18	F1, F2	O
Mass, Force and Weighing Devices	Balances & Scales	5 000 g to 500 kg (Res.= 1 kg)	(838 + 1.46 x 10^{-3}Wt) g	Weight Master Class F1 and M1	Euramet-cg-18	F1, F2	O
Mass, Force and Weighing Devices	Balances & Scales	10 kg to 500 kg (Res.= 2 kg)	(1 650 + 2.3 x 10^{-3}Wt) g	Weight Master Class F1 and M1	Euramet-cg-18	F1, F2	O
Mass, Force and Weighing Devices	Balances & Scales	25 kg to 500 kg (Res.= 5 kg)	(4 190 + 4.6 x 10^{-3}Wt) g	Weight Master Class F1 and M1	Euramet-cg-18	F1, F2	O
Mass, Force and Weighing Devices	Balances & Scales	500 kg to 1 000 kg (Res.= 5 kg)	(5.773 5 + 4.78 x 10^{-8}Wt) kg	Weight Master Class M1	Euramet-cg-18	F1, F2	O

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Mass, Force and Weighing Devices	Analytical Balance	1 mg to 300 g	$(5.15 \times 10^{-7} + 3 \times 10^{-4}\text{Wt})$ g	Class E2 weights	Euramet cg-18	F1, F2	F, O
Thermodynamic	Thermometer used with Thermocouple J, K, T, E Thermistor, Gas, Bimetallic	0 °C to 30 °C	0.03 °C	WIKA CTH7000 with SPRT Accumat AM1751 Ice Bath, Temperature Block	Euramet-cg-8	F1, F2	F, O
Thermodynamic	Thermometer used with Thermocouple J, K, T, E Thermistor, Gas, Bimetallic	30 °C to 670 °C	0.26 °C	WIKA CTH7000 with SPRT Accumat AM1751 Ice Bath, Temperature Block	Euramet-cg-8	F1, F2	F, O
Thermodynamic	Industrial Thermometer used with RTD	-25 °C to 0 °C	0.18 °C	WIKA CTH7000 with SPRT Accumat AM1751, Ice Bath Temperature Block	Euramet-cg-8	F1, F2	F, O
Thermodynamic	Industrial Thermometer used with RTD	0 °C to 670 °C	0.08 °C	WIKA CTH7000 with SPRT Accumat AM1751, Ice Bath Temperature Block	Euramet-cg-8	F1, F2	F, O
Thermodynamic	Temperature Accuracy - Generation Ovens, Furnaces, Muffles	30 °C to 400 °C	0.025 °C	WIKA CTH7000 with SPRT Accumat AM1751, Ice Bath Temperature Block	Euramet-cg-8	F1, F2	F, O

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Thermodynamic	Temperature Accuracy - Generation Ovens, Furnaces, Muffles	400 °C to 670 °C	0.035 °C	WIKA CTH7000 with SPRT Accumat AM1751, Ice Bath Temperature Block	Euramet-cg-8	F1, F2	F, O
Thermodynamic	Liquid in Glass Thermometer (Res.= 0.1 °C)	0 °C to 500 °C	0.06 °C	WIKA CTH7000 with SPRT Accumat AM1751, Ice Bath Temperature Block	Euramet-cg-8	F1, F2	F
Thermodynamic	Freezers	-80 °C to 30 °C	0.035 °C	WIKA CTH7000 with SPRT Accumat AM1751	Euramet-cg-8 AIAG-CQI9 AMS2750 IEC 60068-3-5	F1, F2	F, O
Thermodynamic	Oven, Freezer Calibration / Temperature Uniformity Survey	-10 °C to 300 °C	0.25 °C	Fluke Hydra 2625	RTD Pt-100 AIAG-CQI9 AMS2750	F1, F2	F, O
Thermodynamic	Oven, Freezer Calibration / Temperature Uniformity Survey	300 °C to 600 °C	0.35 °C	Fluke Hydra 2625	RTD Pt-100 AIAG-CQI9 AMS2750	F1, F2	F, O
Thermodynamic	Oven, Freezer Calibration / Temperature Uniformity Survey	-100 °C to 760 °C	0.6 °C	Fluke Hydra 2625 Thermocouple J	AIAG-CQI9 AMS2750	F1, F2	F, O
Thermodynamic	Oven, Freezer Calibration / Temperature Uniformity Survey	250 °C to 1 000 °C	1.2 °C	Fluke Hydra 2625 Thermocouple R, S	AIAG-CQI9 AMS2750	F1, F2	F, O
Thermodynamic	Oven, Freezer Calibration / Temperature Uniformity Survey	1 000 °C to 1 767 °C	1.8 °C	Fluke Hydra 2625 Thermocouple R, S	AIAG-CQI9 AMS2750	F1, F2	F, O

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Thermodynamic	Oven, Freezer Calibration / Temperature Uniformity Survey	-100 °C to 1 000 °C	1 °C	Fluke Hydra 2625 Thermocouple K	AIAG-CQI9 AMS2750	F1, F2	F, O
Thermodynamic	Oven, Freezer Calibration / Temperature Uniformity Survey	1 000 °C to 1 350 °C	1.8 °C	Fluke Hydra 2625 Thermocouple K	AIAG-CQI9 AMS2750	F1, F2	F, O
Thermodynamic	IR Thermometers	25 °C to 550 °C	1 °C	Fluke IR Thermometer Black Body Source Comparison	CENAM Technical Guide	F1, F2	F, O
Thermodynamic	IR Thermometers	25 °C to 550 °C	1 °C	RTD Thermometer Black Body Source Comparison	MSL-TG22 Technical Guide	F1, F2	F, O
Thermodynamic	IR Thermometers	0 °C	1 °C	Fluke IR Thermometer Melting Point of Ice	MSL-TG2 Technical Guide MSL-TG1 Technical Guide	F1, F2	F
Thermodynamic	IR Thermometers	0 °C	0.7 °C	RTD Thermometer Melting point of ice	MSL-TG02 Technical Guide MSL-TG22 Technical Guide MSL-TG1 Technical Guide	F1, F2	F

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Thermodynamic	Temperature Measurement Thermocouple Type K	-25 °C to 0 °C	0.31 °C	WIKA CTH7000 with SPRT Accumat AM1751 Ice Bath, Temperature Dry Well	Euramet-cg-8	F1, F2	F
Thermodynamic	Temperature Measurement Thermocouple Type K	0 °C to 500 °C	0.25 °C	WIKA CTH7000 with SPRT Accumat AM1751 Ice Bath, Temperature Dry Well	Euramet-cg-8	F1, F2	F
Thermodynamic	Temperature Measurement Thermocouple Type J	-25 °C to 0 °C	0.31 °C	WIKA CTH7000 with SPRT Accumat AM1751 Ice Bath, Temperature Dry Well	Euramet-cg-8	F1, F2	F
Thermodynamic	Temperature Measurement Thermocouple Type J	0 °C to 500 °C	0.25 °C	WIKA CTH7000 with SPRT Accumat AM1751 Ice Bath, Temperature Dry Well	Euramet-cg-8	F1, F2	F
Thermodynamic	Temperature Measurement Thermocouple Type T	-25 °C to 0 °C	0.27 °C	WIKA CTH7000 with SPRT Accumat AM1751 Ice Bath, Temperature Dry Well	Euramet-cg-8	F1, F2	F
Thermodynamic	Temperature Measurement Thermocouple Type T	0 °C to 500 °C	0.2 °C	WIKA CTH7000 with SPRT Accumat AM1751 Ice Bath, Temperature Dry Well	Euramet-cg-8	F1, F2	F

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Thermodynamic	Temperature Measurement Thermocouple Type E	-25 °C to 0 °C	0.27 °C	WIKA CTH7000 with SPRT Accumat AM1751 Ice Bath, Temperature Dry Well	Euramet-cg-8	F1, F2	F
Thermodynamic	Temperature Measurement Thermocouple Type E	0 °C to 500 °C	0.2 °C	WIKA CTH7000 with SPRT Accumat AM1751 Ice Bath, Temperature Dry Well	Euramet-cg-8	F1, F2	F
Thermodynamic	Temperature Measurement Thermocouple Type R	-25 °C to 0 °C	0.39 °C	WIKA CTH7000 with SPRT Accumat AM1751 Ice Bath, Temperature Dry Well	Euramet-cg-8	F1, F2	F
Thermodynamic	Temperature Measurement Thermocouple Type R	0 °C to 500 °C	0.35 °C	WIKA CTH7000 with SPRT Accumat AM1751 Ice Bath, Temperature Dry Well	Euramet-cg-8	F1, F2	F
Thermodynamic	Temperature Measurement Thermocouple Type S	-25 °C to 0 °C	0.39 °C	WIKA CTH7000 with SPRT Accumat AM1751 Ice Bath, Temperature Dry Well	Euramet-cg-8	F1, F2	F
Thermodynamic	Temperature Measurement Thermocouple Type S	0 °C to 500 °C	0.35 °C	WIKA CTH7000 with SPRT Accumat AM1751 Ice Bath, Temperature Dry Well	Euramet-cg-8	F1, F2	F

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Thermodynamic	Temperature Measurement RTD Pt 100	-80 °C to -76 °C	0.2 °C	WIKA CTH7000 with SPRT Accumat AM1751 Dry Ice	Euramet-cg-8	F1, F2	F
Thermodynamic	Temperature Measurement RTD Pt 100	-25 °C to 0 °C	0.2 °C	WIKA CTH7000 with SPRT Accumat AM1751 Ice Bath, Temperature Dry Well	Euramet-cg-8	F1, F2	F
Thermodynamic	Temperature Measurement RTD Pt 100	0 °C to 500 °C	0.2 °C	WIKA CTH7000 with SPRT Accumat AM1751 Ice Bath, Temperature Dry Well	Euramet-cg-8	F1, F2	F
Thermodynamic	Thermohygrometers (Temperature)	7 °C to 50 °C	0.2 °C	WIKA CTH7000 with SPRT Comparison Humidity Chamber	CENAM Technical Guide	F1, F2	F, O
Thermodynamic	Thermohygrometers (Humidity) Climatic Chambers	10 % RH to 95 % RH	0.65 % RH	Thermohygrometer ROTRONIC Model HC2A-S Vaisala Model HM70	CENAM Technical Guide	F1, F2	F, O
Thermodynamic	Thermohygrometer (Humidity) (Fixed Point)	11 % RH	0.7 % RH	Rotronic and Vaisala SRM Salt Solutions	CENAM Technical Guide	F1, F2	F
Thermodynamic	Thermohygrometer (Humidity) (Fixed Point)	35 % RH	0.7 % RH	Rotronic and Vaisala SRM Salt Solutions	CENAM Technical Guide	F1, F2	F
Thermodynamic	Thermohygrometer (Humidity) (Fixed Point)	50 % RH	0.7 % RH	Rotronic and Vaisala SRM Salt Solutions	CENAM Technical Guide	F1, F2	F

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Thermodynamic	Thermohygrometer (Humidity) (Fixed Point)	75 % RH	0.7 % RH	Rotronic and Vaisala SRM Salt Solutions	CENAM Technical Guide	F1, F2	F
Thermodynamic	Thermohygrometer (Humidity) (Fixed Point)	80 % RH	0.7 % RH	Rotronic and Vaisala SRM Salt Solutions	CENAM Technical Guide	F1, F2	F
Thermodynamic	Thermohygrometer (Humidity) (Fixed Point)	95 % RH	0.7 % RH	Rotronic and Vaisala SRM Salt Solutions	CENAM Technical Guide	F1, F2	F
Time and Frequency	Low Frequency Generator Photo-Tachometer	0.1 Hz to 10 000 Hz (6 rpm to 600 000 rpm)	1×10^{-6} Hz/Hz	HSM Low Frequency Generator, Universal Counter	HP 5335B, CPEM 2014	F1, F2	F, O
Time and Frequency	Stopwatch	10 s to 1×10^{7} s	1×10^{-8} s/s	Universal Counter GPS	CENAM Technical Guide	F1, F2	F, O
Time and Frequency	Function Generator, Signal Generator	0.1 Hz to 1.3 GHz	2×10^{-10} Hz/Hz	Universal Counter GPS	CENAM Technical Guide	F1, F2	F
Time and Frequency	Standard Oscillator	10 MHz	2×10^{-10} Hz/Hz	Universal Counter GPS	CENAM Technical Guide	F1, F2	F
Time and Frequency	Function Generator, Signal Generator / Period	10 ns to 10 s	2×10^{-9} Hz/Hz	Universal Counter GPS	CENAM Technical Guide	F1, F2	F
Time and Frequency	Time Interval Counter, Universal Counter	10 s to 86 400 s	2×10^{-10} s/s	Universal Counter GPS	CENAM Technical Guide	F1, F2	F
Time and Frequency	Osciloscope (Amplitude) (@ 1 MΩ)	2 mV to 200 mV	10 µV + 0.2 % of reading	Multiproduct T&E 5025C Series 2 9769 and 9770 options	Euramet-cg-7	F1, F2	F, O

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Time and Frequency	Osciloscope (Amplitude) (@ 1 MΩ)	0.2 V to 20 V	25 µV + 0.05 % of reading	Multiproduct T&E 5025C Series 2 9769 and 9770 options	Euramet-cg-7	F1, F2	F, O
Time and Frequency	Osciloscope (Amplitude) (@ 1 MΩ)	20 V up to 200 V	10 mV + 0.05 % of reading	Multiproduct T&E 5025C Series 2 9769 and 9770 options	Euramet-cg-7	F1, F2	F, O
Time and Frequency	Osciloscope (Amplitude) (@ 50 Ω)	1 mV to 200 mV	20 µV + 0.25 % of reading	Multiproduct T&E 5025C Series 2 9769 and 9770 options	Euramet-cg-7	F1, F2	F, O
Time and Frequency	Osciloscope (Amplitude) (@ 50 Ω)	0.2 V to 2 V	20 µV + 0.25 % of reading	Multiproduct T&E 5025C Series 2 9769 and 9770 options	Euramet-cg-7	F1, F2	F, O
Time and Frequency	Equipment to Frequency	0.1 Hz up to 10 MHz	0.000 01 % of reading	Multiproduct T&E 5025C Series 2 9769 and 9770 options and 9762 Rubidium High Stability Reference	Euramet cg-7	F1, F2	F, O
Time and Frequency	Equipment to Frequency	10 MHz to 100 MHz	0.000 1 % of reading	Multiproduct T&E 5025C Series 2 9769 and 9770 options and 9762 Rubidium High Stability Reference	Euramet cg-7	F1, F2	F, O
Time and Frequency	Equipment to Frequency	100 MHz to 2.2 GHz	0.002 % of reading	Multiproduct T&E 5025C Series 2 9769 and 9770 options and 9762 Rubidium High Stability Reference	Euramet cg-7	F1, F2	F, O

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Time and Frequency	Fast Rise	400 ps	150 ps	Multiproduct T&E 5025C Series 2 9769 and 9770 options and 9762 Rubidium High Stability Reference	Euramet cg-7	F1, F2	F, O
Time and Frequency	Oscilloscopes and Spectrum Analyzer (Amplitude) (@ Up to 50 kHz)	0.35 Vpp to 3.5 Vpp	400 µVpp + 0.5 % reading	Multiproduct T&E 5025C Series 2 9769 and 9770 options and 9762 Rubidium High Stability Reference	Euramet cg-7	F1, F2	F, O
Time and Frequency	Oscilloscopes and Spectrum Analyzer (Amplitude) (@ 50 kHz to 100 kHz)	0.35 Vpp to 3.5 Vpp	400 µVpp + 1 % of reading	Multiproduct T&E 5025C Series 2 9769 and 9770 options and 9762 Rubidium High Stability Reference	Euramet cg-7	F1, F2	F, O
Time and Frequency	Oscilloscopes and Spectrum Analyzer (Amplitude) (@ 100 kHz to 300 kHz)	0.35 Vpp to 3.5 Vpp	10 mVpp + 1 % of reading	Multiproduct T&E 5025C Series 2 9769 and 9770 options and 9762 Rubidium High Stability Reference	Euramet cg-7	F1, F2	F, O
Time and Frequency	Oscilloscopes and Spectrum Analyzer (Amplitude) (@ 300 kHz to 1 MHz)	0.35 Vpp to 3.5 Vpp	35 mVpp + 1.5 % of reading	Multiproduct T&E 5025C Series 2 9769 and 9770 options and 9762 Rubidium High Stability Reference	Euramet cg-7	F1, F2	F, O

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Time and Frequency	Oscilloscopes and Spectrum Analyzer (Amplitude) (@ 1 MHz to 200 MHz	0.35 Vpp to 3.5 Vpp	3 % of reading	Multiproduct T&E 5025C Series 2 9769 and 9770 options and 9762 Rubidium High Stability Reference	Euramet cg-7	F1, F2	F, O
Time and Frequency	Oscilloscopes and Spectrum Analyzer (Amplitude) (@ 200 MHz to 500 MHz)	0.35 Vpp to 3.5 Vpp	4 % of reading	Multiproduct T&E 5025C Series 2 9769 and 9770 options and 9762 Rubidium High Stability Reference	Euramet cg-7	F1, F2	F, O
Time and Frequency	Oscilloscopes and Spectrum Analyzer (Amplitude) (@ 500 MHz to 1 GHz)	0.35 Vpp to 3.5 Vpp	5.5 % of reading	Multiproduct T&E 5025C Series 2 9769 and 9770 options and 9762 Rubidium High Stability Reference	Euramet cg-7	F1, F2	F, O
Time and Frequency	Oscilloscopes and Spectrum Analyzer (Amplitude) (@ 1 GHz to 2.2 GHz)	0.35 Vpp to 3.5 Vpp	6.5 % of reading	Multiproduct T&E 5025C Series 2 9769 and 9770 options and 9762 Rubidium High Stability Reference	Euramet cg-7	F1, F2	F, O
Electrical	Temperature Calibration Indication and Control Equipment used with Thermocouple Type B	200 °C to 800 °C	1.5 °C	Process Calibrator Mastech MS7220 Electrical Simulation of Thermocouple Output	Euramet-cg-11	F1, F2	F, O

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Electrical	Temperature Calibration Indication and Control Equipment used with Thermocouple Type B	800 °C to 1 800 °C	1.9 °C	Process Calibrator Mastech MS7220 Electrical Simulation of Thermocouple Output	Euramet-cg-11	F1, F2	F, O
Electrical	Temperature Calibration Indication and Control Equipment used with Thermocouple Type E	-200 °C to 1 000 °C	0.52 °C	Process Calibrator Mastech MS7220 Electrical Simulation of Thermocouple Output	Euramet-cg-11	F1, F2	F, O
Electrical	Temperature Calibration Indication and Control Equipment used with Thermocouple Type J	-200 °C to 1 200 °C	0.36 °C	Process Calibrator Mastech MS7220 Electrical Simulation of Thermocouple Output	Euramet-cg-11	F1, F2	F, O
Electrical	Temperature Calibration Indication and Control Equipment used with Thermocouple Type K	-200 °C to 1 370 °C	0.43 °C	Process Calibrator Mastech MS7220 Electrical Simulation of Thermocouple Output	Euramet-cg-11	F1, F2	F, O
Electrical	Temperature Calibration Indication and Control Equipment used with Thermocouple Type N	-200 °C to 1 300 °C	0.8 °C	Process Calibrator Mastech MS7220 Electrical Simulation of Thermocouple Output	Euramet-cg-11	F1, F2	F, O
Electrical	Temperature Calibration Indication and Control Equipment used with Thermocouple Type R	-200 °C to 1 760 °C	0.78 °C	Process Calibrator Mastech MS7220 Electrical Simulation of Thermocouple Output	Euramet-cg-11	F1, F2	F, O

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Contact Name: Francisco Hernandez Phone: 442-195-9668

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Electrical	Temperature Calibration Indication and Control Equipment used with Thermocouple Type S	-200 °C to 1 760 °C	0.78 °C	Process Calibrator Mastech MS7220 Electrical Simulation of Thermocouple Output	Euramet-cg-11	F1, F2	F, O
Electrical	Temperature Calibration Indication and Control Equipment used with Thermocouple Type T	-200 °C to 400 °C	0.43 °C	Process Calibrator Mastech MS7220 Electrical Simulation of Thermocouple Output	Euramet-cg-11	F1, F2	F, O
Electrical	Temperature Calibration, Indication, and Control Equipment used with RTD Type Pt 100, 385 Ω and Pt 100, 3 926 Ω	-200 °C to 850 °C	0.35 °C	Process Calibrator Mastech MS7222 Electrical Simulation of RTD Output	Euramet-cg-11	F1, F2	F, O
Electrical	Temperature Calibration, Indication, and Control Equipment used with RTD Type Pt 200, 385 Ω	-200 °C to 250 °C	0.25 °C	Process Calibrator Mastech MS7222 Electrical Simulation of RTD Output	Euramet-cg-11	F1, F2	F, O
Electrical	Temperature Calibration, Indication, and Control Equipment used with RTD Type Pt 200, 385 Ω	250 °C to 630 °C	0.25 °C	Process Calibrator Mastech MS7222 Electrical Simulation of RTD Output	Euramet-cg-11	F1, F2	F, O
Electrical	Temperature Calibration, Indication, and Control Equipment used with RTD Type Pt 500, 385 Ω	-200 °C to 500 °C	0.25 °C	Process Calibrator Mastech MS7222 Electrical Simulation of RTD Output	Euramet-cg 11	F1, F2	F, O

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Electrical	Temperature Calibration, Indication, and Control Equipment used with RTD Type Pt 500, 385 Ω	500 °C to 630 °C	0.35 °C	Process Calibrator Mastech MS7222 Electrical Simulation of RTD Output	Euramet-cg 11	F1, F2	F, O
Electrical	Temperature Calibration, Indication, and Control Equipment used with RTD Type Pt 1 000, 385 Ω	-200 °C to 630 °C	0.25 °C	Process Calibrator Mastech MS7222 Electrical Simulation of RTD Output	Euramet-cg 11	F1, F2	F, O
Electrical	Equipment to Measure DC Voltage	Up to 90 mV	6 µV + 0.024 % of reading	Fluke 2635 Data Acquisition Unit	CEM EL-001	F1, F2	F, O
Electrical	Equipment to Measure DC Voltage	90 mV to 300 mV	20 µV + 0.023 % of reading	Fluke 2635 Data Acquisition Unit	CEM EL-001	F1, F2	F, O
Electrical	Equipment to Measure DC Voltage	300 mV to 900 mV	20 µV + 0.021 % of reading	Fluke 2635 Data Acquisition Unit	CEM EL-001	F1, F2	F, O
Electrical	Equipment to Measure DC Voltage	0.9 V to 3 V	0.2 mV + 0.024 % of reading	Fluke 2635 Data Acquisition Unit	CEM EL-001	F1, F2	F, O
Electrical	Equipment to Measure DC Voltage	3 V to 30 V	2 mV + 0.024 % of reading	Fluke 2635 Data Acquisition Unit	CEM EL-001	F1, F2	F, O
Electrical	Equipment to Measure DC Voltage	30 V to 300 V	20 mV + 0.024 % of reading	Fluke 2635 Data Acquisition Unit	CEM EL-001	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 50 Hz to 100 Hz)	0.01 mV to 300 mV	0.25 mV + 0.3 % of reading	Fluke 2635 Data Acquisition Unit	CEM EL-001	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 100 Hz to 10 kHz)	0.01 mV to 300 mV	0.25 mV + 0.16 % of reading	Fluke 2635 Data Acquisition Unit	CEM EL-001	F1, F2	F, O

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Electrical	Equipment to Measure AC Voltage (@ 50 Hz to 100 Hz)	0.3 V to 3 V	0.25 mV + 0.16 % of reading	Fluke 2635 Data Acquisition Unit	CEM EL-001	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 100 Hz to 10 kHz)	0.3 V to 3 V	2.5 mV + 0.29 % of reading	Fluke 2635 Data Acquisition Unit	CEM EL-001	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 50 Hz to 100 Hz)	3 V to 30 V	0.25 mV + 0.29 % of reading	Fluke 2635 Data Acquisition Unit	CEM EL-001	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 100 Hz to 10 kHz)	3 V to 30 V	2.5 mV + 0.15 % of reading	Fluke 2635 Data Acquisition Unit	CEM EL-001	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 50 Hz to 100 Hz)	30 V to 300 V	20 mV + 0.14 % of reading	Fluke 2635 Data Acquisition Unit	CEM EL-001	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 100 Hz to 10 kHz)	30 V to 300 V	0.2 mV + 0.16 % of reading	Fluke 2635 Data Acquisition Unit	CEM EL-001	F1, F2	F, O
Electrical	Equipment to Measure Resistance	Up to 300 Ω	20 mΩ + 0.014 % of reading	Fluke 2635 Data Acquisition Unit	CEM EL-001	F1, F2	F, O
Electrical	Equipment to Measure Resistance	0.3 kΩ to 3 kΩ	0.2 Ω + 0.016 % of reading	Fluke 2635 Data Acquisition Unit	CEM EL-001	F1, F2	F, O
Electrical	Equipment to Measure Resistance	3 kΩ to 30 kΩ	2 Ω + 0.014 % of reading	Fluke 2635 Data Acquisition Unit	CEM EL-001	F1, F2	F, O
Electrical	Equipment to Measure Resistance	30 kΩ to 300 kΩ	20 Ω + 0.021 % reading	Fluke 2635 Data Acquisition Unit	CEM EL-001	F1, F2	F, O

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Electrical	Equipment to Measure Resistance	300 kΩ to 3 MΩ	200 Ω + 0.063 % of reading	Fluke 2635 Data Acquisition Unit	CEM EL-001	F1, F2	F, O
Electrical	Equipment to Measure Resistance	3 MΩ to 10 MΩ	2 kΩ + 0.17 % of reading	Fluke 2635 Data Acquisition Unit	CEM EL-001	F1, F2	F, O
Electrical	Equipment to Output DC Voltage	Up to 100 mV	3.5 µV + 0.005 % of reading	DMM HP 34401A	EL-001	F1, F2	F
Electrical	Equipment to Output DC Voltage	0.1 V to 1 V	7 µV + 0.004 % of reading	DMM HP 34401A	EL-001	F1, F2	F
Electrical	Equipment to Output DC Voltage	1 V to 10 V	50 µ + 0.003 5 % of reading	DMM HP 34401A	EL-001	F1, F2	F
Electrical	Equipment to Output DC Voltage	10 V to 100 V	600 µV + 0.004 5 % of reading	DMM HP 34401A	EL-001	F1, F2	F
Electrical	Equipment to Output DC Voltage	100 V to 1 000 V	100 µV + 0.004 5 % of reading	DMM HP 34401A	EL-001	F1, F2	F
Electrical	Equipment to Output Resistance	Up to 100 Ω	4 mΩ + 0.01 % of reading	DMM HP 34401A	EL-001	F1, F2	F
Electrical	Equipment to Output Resistance	0.1 kΩ to 1 kΩ	0.01 Ω + 0.01 % of reading	DMM HP 34401A	EL-001	F1, F2	F
Electrical	Equipment to Output Resistance	1 kΩ to 10 kΩ	0.1 Ω + 0.01 % of reading	DMM HP 34401A	EL-001	F1, F2	F
Electrical	Equipment to Output Resistance	10 kΩ to 100 kΩ	1 Ω + 0.01 % of reading	DMM HP 34401A	EL-001	F1, F2	F
Electrical	Equipment to Output Resistance	0.1 MΩ to 1 MΩ	0.01 kΩ + 0.01 % of reading	DMM HP 34401A	EL-001	F1, F2	F
Electrical	Equipment to Output Resistance	1 MΩ to 10 MΩ	0.1 kΩ + 0.01 % of reading	DMM HP 34401A	EL-001	F1, F2	F

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Electrical	Equipment to Output Resistance	10 MΩ to 100 MΩ	10 kΩ + 0.01 % of reading	DMM HP 34401A	EL-001	F1, F2	F
Electrical	Equipment to Output DC Current	Up to 10 mA	2 µA + 0.05 % of reading	DMM HP 34401A	EL-001	F1, F2	F
Electrical	Equipment to Output DC Current	10 mA to 100 mA	5 µA + 0.05 % of reading	DMM HP 34401A	EL-001	F1, F2	F
Electrical	Equipment to Output DC Current	0.1 A to 1 A	0.1 mA + 0.1 % of reading	DMM HP 34401A	EL-001	F1, F2	F
Electrical	Equipment to Output DC Current	1 A to 3 A	0.6 mA + 0.12 % of reading	DMM HP 34401A	EL-001	F1, F2	F
Electrical	Equipment to Output AC Voltage (@ 10 Hz to 20 kHz)	0.001 to 100 mV	0.04 mV + 0.06 of reading	DMM HP 34401A	EL-001	F1, F2	F
Electrical	Equipment to Output AC Voltage (@ 10 Hz to 20 kHz)	0.1 V to 1 V	0.3 mV + 0.06 of reading	DMM HP 34401A	EL-001	F1, F2	F
Electrical	Equipment to Output AC Voltage (@ 10 Hz to 20 kHz)	1 V to 10 V	3 mV + 0.06 of reading	DMM HP 34401A	EL-001	F1, F2	F
Electrical	Equipment to Output AC Voltage (@ 10 Hz to 20 kHz)	10 V to 100 V	30 mV + 0.06 of reading	DMM HP 34401A	EL-001	F1, F2	F
Electrical	Equipment to Output AC Voltage (@ 10 Hz to 20 kHz)	100 V to 750 V	225 mV + 0.06 of reading	DMM HP 34401A	EL-001	F1, F2	F
Electrical	Equipment to Output AC Current	10 µA to 1 A	0.4 mA + 0.1 of reading	DMM HP 34401A	EL-001	F1, F2	F

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Electrical	Equipment to Output AC Current	1 A to 3 A	1.8 mA + 0.15 of reading	DMM HP 34401A	EL-001	F1, F2	F
Electrical	DC Voltage Rectifier / Power Supply	0 mV to 100 mV	3.5 µV +0.005 % of reading	DMM HP 34401A	Euramet-cg-15	F1, F2	F, O
Electrical	DC Voltage Rectifier / Power Supply	0.1 V to 1 V	7 µV + 0.004 % of reading	DMM HP 34401A	Euramet-cg-15	F1, F2	F, O
Electrical	DC Voltage Rectifier / Power Supply	1 V to 10 V	50 µV + 0.003 5 % of reading	DMM HP 34401A	Euramet-cg-15	F1, F2	F, O
Electrical	DC Voltage Rectifier / Power Supply	10 V to 100 V	600 µV + 0.004 5 % of reading	DMM HP 34401A	Euramet-cg-15	F1, F2	F, O
Electrical	DC Voltage Rectifier / Power Supply (@ 10 Hz to 20 kHz)	0.001 mV to 100 mV	0.04 mV + 0.06 % of reading	DMM HP 34401A	Euramet-cg-15	F1, F2	F, O
Electrical	DC Voltage Rectifier / Power Supply (@ 10 Hz to 20 kHz)	0.1 V to 1 V	0.3 mV + 0.06 % of reading	DMM HP 34401A	Euramet-cg-15	F1, F2	F, O
Electrical	DC Voltage Rectifier / Power Supply (@ 10 Hz to 20 kHz)	1 V to 10 V	3 mV + 0.06 % of reading	DMM HP 34401A	Euramet-cg-15	F1, F2	F, O
Electrical	DC Voltage Rectifier / Power Supply (@ 10 Hz to 20 kHz)	10 V to 100 V	30 mV + 0.06 % of reading	DMM HP 34401A	Euramet-cg-15	F1, F2	F, O
Electrical	Electrical Ripple Rectifier / Power Supply	0.1 %	0.01 % of reading	DMM HP 34401A	Euramet-cg-15	F1, F2	F, O
Electrical	AC Current Rectifier / Power Supply	10 µA to 1 A	0.4 mA + 0.1 % of reading	DMM HP 34401A	Euramet-cg-15	F1, F2	F, O

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Electrical	AC Current Rectifier / Power Supply	1 A to 3 A	1.8 mA + 0.15 % of reading	DMM HP 34401A	Euramet-cg-15	F1, F2	F, O
Electrical	AC Current Rectifier / Power Supply	3 A to 40 A	0.02 A + 0.5 % of reading	DMM HP 34401A	Euramet-cg-15	F1, F2	F, O
Electrical	AC Current Rectifier / Power Supply	40 A to 400 A	0.2 A + 1.2 % of reading	DMM UNI-T Multi-Turn	Euramet cg-15	F1, F2	F, O
Electrical	AC Current Rectifier / Power Supply	400 A to 2 000 A	2 A + 1.5 % of reading	DMM UNI-T Multi-Turn	Euramet cg-15	F1, F2	F, O
Electrical	AC Current Rectifier / Power Supply	40 A to 400 A	0.2 A + 0.8 % of reading	DMM UNI-T Multi-Turn	Euramet cg-15	F1, F2	F, O
Electrical	AC Current Rectifier / Power Supply	400 A to 2 000 A	2 A + 1 % of reading	DMM UNI-T Multi-Turn	Euramet cg-15	F1, F2	F, O
Electrical	AC Current Rectifier / Power Supply	2 000 A to 8 000 A	2 A + 1.5 % of reading	DMM HP 34401A	Euramet cg-15	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 3 Hz to 5 Hz)	20 mV to 100 mV	0.03 mV + 1 % reading	DMM Keysight 34461A	Euramet cg-15	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 3 Hz to 5 Hz)	0.1 V to 1 V	0.000 3 V + 1 % of reading	DMM Keysight 34461A	Euramet cg-15	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 3 Hz to 5 Hz)	1 V to 10 V	0.00 3 V + 1 % of reading	DMM Keysight 34461A	Euramet cg-15	F1, F2	F, O

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Electrical	Equipment to Measure AC Voltage (@ 5 Hz to 10 Hz)	20 mV to 100 mV	0.03 mV + 0.35 % of reading	DMM Keysight 34461A	Euramet cg-15	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 5 Hz to 10 Hz)	0.1 V to 1 V	0.000 3 V + 0.35 % of reading	DMM Keysight 34461A	Euramet cg-15	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 5 Hz to 10 Hz)	1 V to 10 V	0.003 V + 0.35 % of reading	DMM Keysight 34461A	Euramet cg-15	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 10 Hz to 20 kHz)	20 mV to 100 mV	0.06 % of reading + 0.03 mV	DMM Keysight 34461A	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 10 Hz to 20 kHz)	0.1 V to 1 V	0.06 % of reading + 0.000 3 V	DMM Keysight 34461A	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 10 Hz to 20 kHz)	1 V to 10 V	0.06 % of reading + 0.003 V	DMM Keysight 34461A	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output DC Voltage	20 mV to 200 mV	4 µV + 0.001 5 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O

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Electrical	Equipment to Output DC Voltage	0.2 mV to 2V	15 µV + 0.001 5 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output DC Voltage	2 mV to 20 V	75 µV + 0.001 5 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output DC Voltage	20 mV to 200 V	500 µV + 0.0015 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output DC Voltage	200 mV to 1 010 V	1.5 mV + 0.0025 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 20 Hz to 500 kHz)	1 mV to 20 mV	30 µV + 0.02 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 20 Hz to 500 kHz)	20 mV to 200 mV	30 µV + 0.02 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 20 Hz to 1 MHz)	0.2 V to 2 V	50 µV + 0.02 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 20 Hz to 100 kHz)	2 V to 20 V	500 µV + 0.02 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 40 Hz to 1 kHz)	20 V to 200 V	3 mV + 0.03 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 40 Hz to 1 kHz)	200 V to 1 050 V	20 mV + 0.05 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O

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Electrical	Equipment to Output DC Current	0 µA to 200 µA	15 nA + 0.008 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output DC Current	0.2 mA to 2 mA	40 nA + 0.006 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output DC Current	2 mA to 20 mA	200 nA + 0.006 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output DC Current	20 mA to 200 mA	2 µA + 0.006 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output DC Current	0.2 A to 2 A	70 µA + 0.015 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output DC Current	2 A to 22 A	1 mA + 0.025 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output DC Current	22 A to 1 050 A	5 mA + 0.03 % of reading	Multiproduct T&E 5025C Series 2 and T&E 9780 Clamp Adapter	Euramet cg-15	F1, F2	F, O
Electrical	Equipment to Output Resistance	1 to 1 000 Ω	15 mΩ + 0.01 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Resistance	1 kΩ to 10 kΩ	25 mΩ + 0.02 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Resistance	10 kΩ to 100 kΩ	1 Ω + 0.01 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Resistance	0.1 MΩ to 1 MΩ	10 Ω + 0.01 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Resistance	1 MΩ to 10 MΩ	100 Ω + 0.02 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O

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Carretera Estatal 431, km 1 + 93, Europark II Bodega 25C, El Colorado
Municipio de El Marqués, Querétaro, México. C.P. 76246
Contact Name: Francisco Hernandez Phone: 442-195-9668

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FIELD OF CALIBRATION	MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	EXPANDED MEASUREMENT UNCERTAINTY (±) 1	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED	FLEX CODE	LOCATION OF ACTIVITY
Electrical	Equipment to Output Resistance	10 MΩ to 100 MΩ	10 kΩ + 0.1 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Resistance	0.1 GΩ to 1.1 GΩ	1 MΩ + 1 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Resistance	1 Ω	5 mΩ	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Resistance	10 Ω	5 mΩ	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Resistance	100 Ω	0.008 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Resistance	1 kΩ	0.0035 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Resistance	100 kΩ	0.003 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Resistance	100 kΩ up to 10 GΩ	1 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Resistance	10 GΩ up to 100 GΩ	5 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 20 Hz to 5 kHz)	10 µA to 200 µA	150 nA + 0.05 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 20 Hz to 5 kHz)	0.2 mA to 2 mA	150 nA + 0.05 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 20 Hz to 5 kHz)	2 mA to 20 mA	2 µA + 0.05 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O

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Electrical	Equipment to Output AC Current (@ 20 Hz to 5 kHz)	20 mA to 200 mA	20 µA + 0.05 % of reading +	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 20 Hz to 500 kHz)	0.2 A to 2 A	100 µA + 0.05 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 20 Hz to 500 kHz)	2 A to 22 A	3 mA + 0.1 % of reading	Multiproduct T&E 5025C Series 2	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 20 Hz to 500 kHz)	22 A to 1 050 A	5 mA + 0.2 % of reading	Multiproduct T&E 5025C Series 2 and T&E 9780 Clamp Adapter	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output DC Power	Up to 0.004 W	8.7 % of reading	Multiproduct T&E 5025C Series 2 9797 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output DC Power	Up to 0.04 W	0.89 % of reading	Multiproduct T&E 5025C Series 2 9797 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output DC Power	Up to 0.4 W	0.11 % of reading	Multiproduct T&E 5025C Series 2 9797 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output DC Power	Up to 4 W	0.031 % of reading	Multiproduct T&E 5025C Series 2 9797 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output DC Power	Up to 40 W	0.007 % of reading	Multiproduct T&E 5025C Series 2 9797 Option	Euramet-cg-15	F1, F2	F, O

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Electrical	Equipment to Output DC Power	Up to 440 W	0.004 5 % of reading	Multiproduct T&E 5025C Series 2 9797 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output DC Power	Up to 4400 W	0.001 2 % of reading	Multiproduct T&E 5025C Series 2 9797 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output DC Power	Up to 23 100 W	0.002 5 % of reading	Multiproduct T&E 5025C Series 2, 9797 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output DC Power	Up to 200 kW	0.025 % of reading	Multiproduct T&E 5025C Series 2 9797 option and T&E Clamp Meter Adapter 9780	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output AC Power (@ 40 Hz to 500 Hz)	Up to 0.04 W	3.8 % of reading	Multiproduct T&E 5025C Series 2, 9797 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output AC Power (@ 40 Hz to 500 Hz)	0.04 W to 0.4 W	0.38 % of reading	Multiproduct T&E 5025C Series 2, 9797 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output AC Power (@ 40 Hz to 500 Hz)	0.4 W to 4 W	0.047 % of reading	Multiproduct T&E 5025C Series 2, 9797 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output AC Power (@ 40 Hz to 500 Hz)	4 W to 40 W	0.027 % of reading	Multiproduct T&E 5025C Series 2, 9797 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output AC Power (@ 40 Hz to 500 Hz)	40 W to 440 W	0.004 2 % of reading	Multiproduct T&E 5025C Series 2, 9797 Option	Euramet-cg-15	F1, F2	F, O

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Electrical	Equipment to Output AC Power (@ 40 Hz to 500 Hz)	440 W to 4 400 W	0.005 % of reading	Multiproduct T&E 5025C Series 2, 9797 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output AC Power (@ 40 Hz to 500 Hz)	4 400 W to 23 100 W	0.004 6 % of reading	Multiproduct T&E 5025C Series 2, 9797 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output AC Power (@ 40 Hz to 500 Hz)	23 100 W to 200 kW	0.016 % of reading	Multiproduct T&E 5025C Series 2 and T&E 9797 Option Clamp Meter Adapter 9780	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output AC Phase Angle	90°	0.25°	Multiproduct T&E 5025C Series 2, 9797 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Capacitance	1 nF	10 pF + 0.2 % of reading	Multiproduct T&E 5025C Series 2, 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Capacitance	10 nF	10 pF + 0.2 % of reading	Multiproduct T&E 5025C Series 2, 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Capacitance	20 nF	10 pF + 0.2 % of reading	Multiproduct T&E 5025C Series 2, 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Capacitance	50 nF	10 pF + 0.2 % of reading	Multiproduct T&E 5025C Series 2, 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Capacitance	100 nF	0.2 % of reading	Multiproduct T&E 5025C Series 2, 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Capacitance	200 nF	0.2 % of reading	Multiproduct T&E 5025C Series 2, 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Capacitance	500 nF	0.2 % of reading	Multiproduct T&E 5025C Series 2, 9701 Option	Euramet-cg-15	F1, F2	F, O

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Electrical	Equipment to Output Capacitance	1 µF	0.2 % of reading	Multiproduct T&E 5025C Series 2, 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Capacitance	10 µF	0.5 % of reading	Multiproduct T&E 5025C Series 2, 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Capacitance	20 µF	0.5 % of reading	Multiproduct T&E 5025C Series 2, 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Capacitance	50 µF	0.5 % of reading	Multiproduct T&E 5025C Series 2, 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Capacitance	100 µF	0.5 % of reading	Multiproduct T&E 5025C Series 2, 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Inductance	1 mH	5 µH + 0.2 % of reading	Multiproduct T&E 5025C Series 2 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Inductance	1.9 mH	5 µH + 0.2 % of reading	Multiproduct T&E 5025C Series 2 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Inductance	5 mH	5 µH + 0.2 % of reading	Multiproduct T&E 5025C Series 2 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Inductance	10 mH	5 µH + 0.2 % of reading	Multiproduct T&E 5025C Series 2 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Inductance	19 mH	1 % of reading	Multiproduct T&E 5025C Series 2 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Inductance	50 mH	1 % of reading	Multiproduct T&E 5025C Series 2, 9701 Option	Euramet-cg-15	F1, F2	F, O

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Electrical	Equipment to Output Inductance	100 mH	1 % of reading	Multiproduct T&E 5025C Series 2 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Inductance	190 mH	1 % of reading	Multiproduct T&E 5025C Series 2 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Inductance	500 mH	1 % of reading	Multiproduct T&E 5025C Series 2 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Inductance	1 000 mH	1 % of reading	Multiproduct T&E 5025C Series 2 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Inductance	10 H	2 % of reading	Multiproduct T&E 5025C Series 2 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Conductance	1 S	1.6 % of reading	Multiproduct T&E 5025C Series 2 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Conductance	100 mS	0.16 % of reading	Multiproduct T&E 5025C Series 2 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Conductance	10 mS	0.025 % of reading	Multiproduct T&E 5025C Series 2 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Conductance	1 mS	0.015 % of reading	Multiproduct T&E 5025C Series 2 9701 Option	Euramet-cg-15	F1, F2	F, O

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Electrical	Equipment to Output Conductance	100 µS	0.021 % of reading	Multiproduct T&E 5025C Series 2 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Conductance	10 µS	0.011 % of reading	Multiproduct T&E 5025C Series 2 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Conductance	1 µS	0.011 % of reading	Multiproduct T&E 5025C Series 2 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Conductance	100 nS	0.021 % of reading	Multiproduct T&E 5025C Series 2 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Conductance	10 nS	0.11 % of reading	Multiproduct T&E 5025C Series 2 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Output Conductance	1 nS	1.1 % of reading	Multiproduct T&E 5025C Series 2 9701 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type B	300 °C to 1 820 °C	0.5 °C	Multiproduct T&E 5025C Series 2, 9701 Option Electrical Simulation of Thermocouple Output	Euramet-cg-08	F1, F2	F, O
Electrical	Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type E	-200 °C to 1 000 °C	0.5 °C	Multiproduct T&E 5025C Series 2, 9701 Option Electrical Simulation of Thermocouple Output	Euramet-cg-08	F1, F2	F, O

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Electrical	Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type J	-210 °C to 1 200 °C	0.5 °C	Multiproduct T&E 5025C Series 2, 9701 Option Electrical Simulation of Thermocouple Output	Euramet-cg-08	F1, F2	F, O
Electrical	Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type K	-200 °C to 1 372 °C	0.09 °C	Multiproduct T&E 5025C Series 2, 9701 Option Electrical Simulation of Thermocouple Output	Euramet-cg-08	F1, F2	F, O
Electrical	Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type L	-200 °C to 900 °C	0.2 °C	Multiproduct T&E 5025C Series 2, 9701 Option Electrical Simulation of Thermocouple Output	Euramet-cg-08	F1, F2	F, O
Electrical	Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type N	-200 °C to 1 300 °C	0.1 °C	Multiproduct T&E 5025C Series 2, 9701 Option Electrical Simulation of Thermocouple Output	Euramet-cg-08	F1, F2	F, O
Electrical	Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type R	-50 °C to 1 768 °C	0.35 °C	Multiproduct T&E 5025C Series 2, 9701 Option Electrical Simulation of Thermocouple Output	Euramet-cg-08	F1, F2	F, O
Electrical	Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type S	-50 °C to 1 768 °C	0.4 °C	Multiproduct T&E 5025C Series 2, 9701 Option Electrical Simulation of Thermocouple Output	Euramet-cg-08	F1, F2	F, O

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Electrical	Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type T	-200 °C to 400 °C	0.09 °C	Multiproduct T&E 5025C Series 2, 9701 Option Electrical Simulation of Thermocouple Output	Euramet-cg-08	F1, F2	F, O
Electrical	Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type U	-200 °C to 600 °C	0.1 °C	Multiproduct T&E 5025C Series 2, 9701 Option Electrical Simulation of Thermocouple Output	Euramet-cg-08	F1, F2	F, O
Electrical	Temperature Calibration, Indication, and Control Equipment used with RTD Pt 100 Ω	-180 °C to 850 °C	0.07 °C+ 0.01 % of reading	Multiproduct T&E 5025C Series 2, 9701 Option Electrical Simulation of RTD Output	Euramet-cg-08	F1, F2	F, O
Electrical	Temperature Calibration, Indication, and Control Equipment used with RTD Pt 200 Ω	-180 °C to 850 °C	0.05 °C + 0.01 % of reading	Multiproduct T&E 5025C Series 2, 9701 Option Electrical Simulation of RTD Output	Euramet-cg-08	F1, F2	F, O
Electrical	Temperature Calibration, Indication, and Control Equipment used with RTD Pt 500 Ω	-180 °C to 850 °C	0.05 °C + 0.01 % of reading	Multiproduct T&E 5025C Series 2, 9701 Option Electrical Simulation of RTD Output	Euramet-cg-08	F1, F2	F, O
Electrical	Temperature Calibration, Indication, and Control Equipment used with RTD Pt 500 Ω	-180 °C to 850 °C	0.3 °C + 0.04 % of reading	Multiproduct T&E 5025C Series 2, 9701 Option Electrical Simulation of RTD Output	Euramet-cg-08	F1, F2	F, O

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Electrical	Equipment to Measure DC Voltage	Up to 100 mV	300 µV + 0.000 5 % of reading	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure DC Voltage	0.1 V to 1 V	300 µV + 0.000 4 % of reading	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure DC Voltage	1 V to 10 V	500 µV +0.000 4 % of reading	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure DC Voltage	10 V to 100 V	30 µV + 0.000 6 % of reading	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure DC Voltage	100 V to 1000 V	100 µV + 0.000 6 of reading	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure DC Voltage	1 kV to 20 kV	2 % of reading	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure DC Voltage	20 kV to 35 kV	1 % of reading	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure DC Voltage	35 kV to 40 kV	2 % of reading	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure Resistance	Up to 10 Ω	50 µΩ + 0.001 5 % of reading	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O

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HSM Sistemas de Metrología, S. de R.L. de C.V.

Carretera Estatal 431, km 1 + 93, Europark II Bodega 25C, El Colorado
Municipio de El Marqués, Querétaro, México. C.P. 76246
Contact Name: Francisco Hernandez Phone: 442-195-9668

Accreditation is granted to the facility to perform the following conformity assessment activities:

FIELD OF CALIBRATION	MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	EXPANDED MEASUREMENT UNCERTAINTY (±) 1	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED	FLEX CODE	LOCATION OF ACTIVITY
Electrical	Equipment to Measure Resistance	10 Ω to 100 Ω	500 µΩ +0.0012 % of reading	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure Resistance	0.1 kΩ to 1 kΩ	500 µΩ + 0.001 % of reading	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure Resistance	1 kΩ to 10 kΩ	5 mΩ + 0.001 % of reading	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure Resistance	10 kΩ to 100 kΩ	50 mΩ + 0.001 % of reading	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure Resistance	0.1 MΩ to 1 MΩ	2 mΩ + 0.001 5 % of reading	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure Resistance	1 MΩ to 10 MΩ	100 mΩ + 0.005 % of reading	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure Resistance	10 MΩ to 100 MΩ	1 Ω +0.05 % of reading	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure Resistance	100 MΩ to 1 GΩ	10 Ω + 0.5 % of reading	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure DC Current	Up to 100 nA	0.04 nA + 0.003 % of reading	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O

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Electrical	Equipment to Measure DC Current	0.1 µA to 1 µA	0.002 % of reading + 0.04 nA	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure DC Current	1 µA to 10 µA	0.002 % of reading + 0.1 nA	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure DC Current	10 µA to 100 µA	0.002 % of reading + 0.8 nA	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure DC Current	0.1 mA to 1 mA	0.002 % of reading + 5 nA	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure DC Current	1 mA to 10 mA	0.002 % of reading + 50 nA	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure DC Current	10 mA to 100 mA	0.003 5 % of reading + 0.5 µA	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure DC Current	0.1 mA to 1 A	0.011 % of reading + 10 µA	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 1 Hz to 100 kHz)	Up to 10 mV	0.03 % of reading + 1.1 µV	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O

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Electrical	Equipment to Measure AC Voltage (@ 1 Hz to 100 kHz)	10 mV to 10 V	0.007 % of reading	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 1 Hz to 100 kHz)	10 V to 100 V	0.02 % of reading	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 1 Hz to 100 kHz)	100 V to 1000 V	0.04 % of reading	Agilent 3458A Digital Multimeter with 002 Option	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 60 Hz)	1 kV to 28 kV	5 % of reading	Agilent 3458A Digital Multimeter with 002 option Fluke 80k-40 Probe	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure AC Current (@ 10 Hz to 5 kHz)	Up to 100 µA	0.03 µA + 0.03 % of reading	Agilent 3458A Digital Multimeter with 002 Option Fluke 80k-40 Probe	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure AC Current (@ 10 Hz to 5 kHz)	0.1 mA to 100 mA	0.03 % of reading	Agilent 3458A Digital Multimeter with 002 Option Fluke 80k-40 Probe	Euramet-cg-15	F1, F2	F, O
Electrical	Equipment to Measure AC Current (@ 10 Hz to 5 kHz)	0.1 A to 1 A	0.08 % of reading	Agilent 3458A Digital Multimeter with 002 Option Fluke 80k-40 Probe	Euramet-cg-15	F1, F2	F, O

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Accreditation is granted to the facility to perform the following conformity assessment activities:

1. The CMC (Calibration and Measurement Capability) is expressed in terms of measurement instrument/aspect being calibrated, range, expanded measurement uncertainty, equipment, and method/procedure. The expanded measurement uncertainty stated for calibrations included on this scope of accreditation represents the smallest measurement uncertainty attainable by the laboratory when performing a more or less routine calibration of a nearly ideal device under nearly ideal conditions. It is typically expressed at a confidence level of 95 % using a coverage factor k (usually equal to 2). The actual measurement uncertainty associated with a specific calibration performed by the laboratory will typically be larger than the measurement uncertainty included on this scope for the same calibration since capability and performance of the device being calibrated and the conditions related to the calibration may reasonably be expected to deviate from ideal to some degree.

2. The laboratory's range of calibration capability for all disciplines for which it is accredited is the interval from the smallest calibrated standard to the largest calibrated standard used in performing the calibration. The low end of this range must be an attainable value for which the laboratory has or has access to the standard referenced. Verification of an indicated value of zero in the absence of a standard is common practice in the procedure for many calibrations but by its definition it does not constitute calibration of zero capacity.

3. Location of activity:

Location Code	Location
F	Conformity assessment activity is performed at the CAB's fixed facility
O	Conformity assessment activity is performed onsite at the CAB's customer location

4. Measurement uncertainties obtained for calibrations performed at customer sites can be expected to be larger than the measurement uncertainties obtained at the laboratory's fixed location for similar calibrations. This is due to the effects of transportation of the standards and equipment and upon environmental conditions at the customer site which are typically not controlled as closely as at the laboratory's fixed location.

5. The term L represents length in inches or millimeters as appropriate to the uncertainty statement.

6. The term Wt represents weight in pounds or grams (including SI multiple and submultiple units) appropriate to the uncertainty statement.

7. The term V represents Volume in liters or milliliters as appropriate to the uncertainty statement.

8. The term F represents force in pound-force (lbf) as appropriate to the uncertainty statement.

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Accreditation is granted to the facility to perform the following conformity assessment activities:

9. Flex Codes

F0: When no flexibility is identified. There are no changes to items calibrated, characteristics identified or versions of methods except for updating to the most recent version of a standard method after verification.
F1: The laboratory has the capability to introduce a new instrument, quantity, or gauge for an accredited calibration method.
F2: The laboratory has the capability to introduce the newest revision of an accredited authoritative standard method (with no modifications) identified on the scope
F3: The laboratory has the capability to introduce a new revision of an accredited non-standard method using the same technology or technique identified on the scope
F4: The laboratory has the capability to introduce a validated method that is equivalent to an accredited method (using the same Calibration Equipment or Reference Standards identified on the scope for the same parameter, component, or analyte identified on the line item of the scope.