



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

EML, LLC 998 Elm Hill Pike, Nashville, TN 37210

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, Electrical, Mechanical, Mass, Force, and Weighing Devices, Thermodynamic, and Time & Frequency 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:

Initial Accreditation Date:

Issue Date:

Expiration Date:

August 23, 2018

June 26, 2025

August 31, 2027

Accreditation No.:

Certificate No.:

100190

L25-482

Tracy Szerszen President

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





EML, LLC

998 Elm Hill Pike, Nashville, TN 37210 Contact Name: Stephen Kane Phone: 615-771-2560

FIELD OF CALIBRATION	MEASURED INSTRUMENT,	RANGE (AND SPECIFICATION	EXPANDED MEASUREMENT	CALIBRATION EQUIPMENT AND	CALIBRATION MEASUREMENT	FLEX CODE	LOCATION OF
CALLIDATION	QUANTITY OR GAUGE	WHERE APPROPRIATE)	UNCERTAINTY (±) ¹	REFERENCE STANDARDS USED	METHOD OR PROCEDURES USED		ACTIVITY
Dimensional	Micrometers	Up to 20 in	(58 + 15L) μin	Gage Blocks & Optical Flats	CP-004 B89.1.13	F1, F2, F3	F, O
Dimensional	Micrometers	20 in to 48 in	(187 + 37L) µin	Gage Blocks & Optical	CP-004	F1, F2, F3	F, O
Dimensional	Wildionicidis	20 m to 40 m	(167 + 37L) μm	Flats	B89.1.13	11,12,13	1,0
Dimensional	Calipers	Up to 20 in	(573 + 9L) μin	Gage Blocks & Accessory Kit	CP-010	F1, F3	F, O
Dimensional	Calipers	20 in to 48 in	(577 + 36L) μin	Gage Blocks & Accessory Kit	CP-010	F1, F3	F, O
Dimensional	Height Gages (excluding	Up to 20 in	(215 + 15L) μin	Gage Blocks	CP-005	F1, F2, F3	F, O
	Height Masters)			Surface Plate	CP-009		
					CP-007		
Dimensional	Height Gages (excluding	20 in to 48 in	(225 + 30L) μin	Gage Blocks	ASME B89.1.10M CP-005	F1, F2, F3	F, O
Difficusional	Height Masters)	20 111 10 46 111	(223 + 30L) μm	Surface Plate	CP-003 CP-009	Γ 1, Γ 2, Γ 3	r, 0
	Tieight Wasters)			Surface Flate	CP-007		
					ASME B89.1.10M		
Dimensional	Depth Gages	Up to 20 in	(117 + 15L) μin	Gage Blocks	CP-005	F1, F2, F3	F, O
				Surface Plate	CP-009		
					CP-007		
					ASME B89.1.10M		
Dimensional	Linear Indicators (Digital &	Up to 4 in	$(115 + 2L) \mu in$	Gage Blocks	CP-005	F1, F2, F3	F, O
	Test Indicators)			Surface Plate	CP-009		
					CP-007 ASME B89.1.10M		
Dimensional	Taper Gages	1 mm to 15 mm	0.001 mm	Height Gage Test	GIDEP / OEM	F1, F2	F, O
				Indicator	Manual		
Dimensional	Rulers	Up to 48 in	(500 + 18L) μin	Caliper & Range Extender	CP-021	F1, F3	F, O
Dimensional	Surface Plates (Flatness)	Up to 96 in x 48 in	(6.4 + 3.9 DL) μin	Wyler BlueLevel II	ASME B89.3.7	F1, F2	F, O



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FIELD OF	MEASURED	RANGE	EXPANDED	CALIBRATION	CALIBRATION	FLEX CODE	LOCATION
CALIBRATION	INSTRUMENT, QUANTITY OR GAUGE	(AND SPECIFICATION WHERE APPROPRIATE)	MEASUREMENT UNCERTAINTY (±) ¹	EQUIPMENT AND REFERENCE STANDARDS USED	MEASUREMENT METHOD OR PROCEDURES USED		OF ACTIVITY
Dimensional	Cylindrical Gages (Plugs, Pins)	Up to 4 in	(52 + 17D) μin	Gage Blocks, Linear Measuring Machine	ASTM B1 Standards CP-006	F1, F2, F3	F, O
Dimensional	Cylindrical Gages (Rings)	0.5 in to 4 in	(52 + 17D) μin	Gage Blocks, Linear Measuring Machine	ASTM B1 Standards CP-006	F1, F2, F3	F, O
Dimensional	Thread Plugs (Major Diameter)	Up to 4 in	(26 + 16D) μin	Gage Blocks, Linear Measuring Machine	ASTM B1 Standards CP-006	F1, F2, F3	F, O
Dimensional	Thread Plugs (Pitch Diameter)	4 TPI to 80 TPI	(74 + 9.7D) μin	Three-wire Method	ASTM B1 Standards	F1, F2	F, O
Dimensional	Length Standards	Up to 20 in	(210 + 12L) μin	Gage Blocks, Linear Measuring Machine, Height Gage	GIDEP / OEM Manual	F1, F2	F, O
Dimensional	Optical Comparator (X & Y Axis Accuracy)	Up to 15 in	(130 + 4.6L) μin	Glass Masters	CP-018	F1, F3	F, O
Dimensional	Optical Comparator (Magnification)	10X	0.016 % of magnification	Magnification Master	CP-018	F1, F3	F, O
Dimensional	Optical Comparator (Magnification)	20X	0.016 % of magnification	Magnification Master	CP-018	F1, F3	F, O
Dimensional	Optical Comparator (Magnification)	31.25X	0.016 % of magnification	Magnification Master	CP-018	F1, F3	F, O
Dimensional	Optical Comparator (Magnification)	50X	0.016 % of magnification	Magnification Master	CP-018	F1, F3	F, O
Dimensional	Optical Comparator (Magnification)	62.5X	0.016 % of magnification	Magnification Master	CP-018	F1, F3	F, O
Dimensional	Optical Comparator (Magnification)	100X	0.016 % of magnification	Magnification Master	CP-018	F1, F3	F, O





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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
Dimensional	Optical Comparator (Angle)	30°	33 s	Angle Block	CP-018	F1, F3	F, O
Dimensional	Optical Comparator (Angle)	45°	20 s	Angle Block	CP-018	F1, F3	F, O
Dimensional	Optical Comparator (Angle)	60°	3 min/4 s	Angle Block	CP-018	F1, F3	F, O
Dimensional	Optical Comparator (Angle)	90°	1 min/6 s	Angle Block	CP-018	F1, F3	F, O
Dimensional	Protractor (Angle)	0.25° to 10°	3 min/58 s	Sine Plate/Gage Blocks	GIDEP / OEM Manual	F1, F2	F, O
Dimensional	Protractor (Angle)	10° to 90°	39 min/36 s	Sine Plate/Gage Blocks	GIDEP / OEM Manual	F1, F2	F, O
Dimensional	CMM (Linear Displacement)	Up to 700 mm	$(7.3 + 0.065L) \mu m$	Checkmaster	ASME B89.4.10360.2	F1, F2	F, O
Dimensional	CMM (Volumetric Accuracy)	Up to 600 mm	(7. 3 + 0.065L) μm	Ball Bar	ASME B89.4.1-2000 ASME B89.4.10360.2	F1, F2	F, O
Dimensional	CMM (Repeatability)	25.4 mm	4.8 μm	Calibration Sphere	ASME B89.4.1-2000 ASME B89.4.10360.2	F1, F2	F, O
Electrical	Equipment to Output DC Voltage	10 mV to 100 mV	$13 \mu V/V + 8.8 \mu V$	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output DC Voltage	0.1 V to 1 V	$12 \mu V/V + 3.4 \mu V$	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output DC Voltage	1 V to 10 V	$12 \mu V/V + 40 \mu V$	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output DC Voltage	10 V to 100 V	$13 \mu V/V + 66 \mu V$	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output DC Voltage	100 V to 1 000 V	$18 \mu V/V + 65 \mu V$	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O





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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 Measure DC Voltage	10 mV to 100 mV	$6.8 \mu V/V + 0.86 \mu V$	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure DC Voltage	0.1 V to 1 V	$6 \mu V/V + 0.8 \mu V$	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure DC Voltage	1 V to 10 V	$6.7 \mu V/V + 1.3 \mu V$	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure DC Voltage	10 V to 100 V	$7 \mu V/V + 32 \mu V$	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure DC Voltage	100 V to 1 000 V	$7.8 \mu V/V + 59 \mu V$	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure HV DC Voltage	1 kV to 20 kV	1.1% of Reading	Fluke 80K-40 & HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output DC Current	Up to 3.3 mA	$83 \mu A/A + 26 nA$	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output DC Current	3.3 mA to 33 mA	$69 \mu A/A + 0.3 \mu A$	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output DC Current	33 mA to 330 mA	$62 \mu A/A + 0.91 \mu A$	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output DC Current	0.33 mA to 2.2 mA	0.016 % of Reading + 15 μA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output DC Current	2.2 mA to 11 mA	0.047 % of Reading + 0.14 mA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output DC Current (Clamp-On)	Up to 550 A	0.3 % of Reading + 65 mA	Fluke 5500A/coil	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure DC Current	100 μA to 1 A	0.57 μΑ	HP 3458A & Load	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure DC Current	10 μA to 100 μA	20 μA/A + 0.67 nA	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure DC Current	0.1 mA to 1 mA	$17 \mu A/A + 5.4 nA$	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O





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FIELD OF CALIBRATION CALIBRATION (CAMPATIV) MEASURED INTROMENT, QUANTITY OR GALGE. RANGE AND SPECIFICATION (APPROPRIATE) EXPANDED MICRITATION, APPROPRIATE) CALIBRATION SHEAR (CHINTY) CALIBRATION SHEAR (CHINTY) FLEX CODE OF ACTIVITY Electrical Equipment to Measure DC Current 1 mA to 10 mA 41 μA/A + 37 nA HP 3458A GIDEP / OEM GIDEP / OEM GIDEP / OEM Manual FI, F2 F, O Electrical Equipment to Measure DC Current 0.1 A to 1 A 98 μA/A + 9.9 μA HP 3458A GIDEP / OEM GIDEP / OEM Manual FI, F2 F, O Electrical Equipment to Measure DC Current 0.1 A to 1 A 98 μA/A + 9.9 μA HP 3458A GIDEP / OEM GIDEP / OEM Manual FI, F2 F, O Electrical Equipment to Measure DC Current 0.1 Ω to 11 Ω 0.046 % of Reading + DC Resistance Fluke \$500A GIDEP / OEM GIDEP / OE					ing conformity assessment			* 0 C + FT O C -
Electrical Equipment to Measure 10 mA to 100 mA 37 μA/A + 0.43 μA HP 3458A GIDEP / OEM F1, F2 F, O Manual Electrical Equipment to Measure 0.1 A to 1 A 98 μA/A + 9.9 μA HP 3458A GIDEP / OEM F1, F2 F, O Manual Electrical Equipment to Output DC Resistance 0.1 Ω to 11 Ω 0.046 % of Reading + OC Nesistance Electrical Equipment to Output 11 Ω to 33 Ω 0.031 % of Reading + OC Resistance DC Resistance 0.015 Ω Manual Electrical Equipment to Output 33 Ω to 110 Ω 0.015 Ω Manual Electrical Equipment to Output 33 Ω to 110 Ω 0.012 % of Reading + OC Resistance 0.015 Ω Manual Electrical Equipment to Output 0.012 % of Reading + OC Resistance 0.015 Ω Manual Electrical Equipment to Output 0.33 Ω 10 10 Ω 0.012 % of Reading + OC Resistance 0.015 Ω Manual Electrical Equipment to Output 0.33 Ω 10 10 Ω to 330 Ω 74 μΩ/Ω + 0.15 Ω Fluke 5500A GIDEP / OEM F1, F2 F, O Manual Electrical Equipment to Output 0.33 kΩ to 1.1 kΩ 76 μΩ/Ω + 0.06 Ω Fluke 5500A GIDEP / OEM F1, F2 F, O Manual Electrical Equipment to Output 0.33 kΩ to 1.1 kΩ 76 μΩ/Ω + 0.06 Ω Fluke 5500A GIDEP / OEM F1, F2 F, O Manual Electrical Equipment to Output 0.33 kΩ to 1.1 kΩ to 3.3 kΩ 83 μΩ/Ω + 0.06 Ω Fluke 5500A GIDEP / OEM F1, F2 F, O Manual Electrical Equipment to Output 0.33 kΩ to 1.1 kΩ to 3.3 kΩ 80 μΩ/Ω + 0.6 Ω Fluke 5500A GIDEP / OEM F1, F2 F, O DC Resistance Electrical Equipment to Output 0.33 kΩ to 1.1 kΩ to 3.3 kΩ F1 μΩ/Ω + 0.6 Ω F1 μke 5500A GIDEP / OEM F1, F2 F, O DC Resistance Electrical Equipment to Output 0.33 kΩ to 1.1 kΩ to 3.3 kΩ F1 μΩ/Ω + 0.6 Ω F1 μke 5500A GIDEP / OEM F1, F2 F, O DC Resistance Electrical Equipment to Output 0.33 kΩ to 1.1 kΩ to 3.0 kΩ 76 μΩ/Ω + 0.6 Ω F1 μke 5500A GIDEP / OEM F1, F2 F, O DC Resistance Electrical Equipment to Output 0.33 kΩ to 1.1 kΩ to 3.0 kΩ F1 μα/Ω + 0.6 Ω F1 μke 5500A		QUANTITY OR GAUGE	WHERE APPROPRIATE)	UNCERTAINTY (±) 1	REFERENCE STANDARDS USED	METHOD OR PROCEDURES USED	FLEX CODE	ACTIVITY
ElectricalEquipment to Measure DC Current10 mA to 100 mA DC Current $37 \mu A/A + 0.43 \mu A$ $98 \mu A/A + 9.9 \mu A$ 	Electrical	1 1	1 mA to 10 mA	$41 \mu A/A + 37 nA$	HP 3458A		F1, F2	F, O
Electrical Equipment to Measure DC Current DC Resistance DC Current DC Resistance DC Resistance								
ElectricalEquipment to Measure DC Current0.1 A to 1 A98 μA/A + 9.9 μAHP 3458AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance0.1 Ω to 11 Ω 0.008 Ω 0.046 % of Reading + 0.008 Ω Fluke 5500A ManualGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance11 Ω to 33 Ω 0.015 Ω 0.031 % of Reading + 0.015 Ω Fluke 5500A ManualGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance33 Ω to 110 Ω 0.015 Ω 0.012 % of Reading + 0.015 Ω Fluke 5500A ManualGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance110 Ω to 330 Ω DC Resistance74 $\mu\Omega/\Omega$ + 0.15 Ω 110 Ω to 330 Ω DC ResistanceFluke 5500A ManualGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance0.33 $k\Omega$ to 1.1 $k\Omega$ DC Resistance76 $\mu\Omega/\Omega$ + 0.06 Ω ManualFluke 5500A ManualGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance3.3 $k\Omega$ to 11 $k\Omega$ DC Resistance76 $\mu\Omega/\Omega$ + 0.6 Ω ManualFluke 5500A ManualGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance11 $k\Omega$ to 33 $k\Omega$ Manual60 $\mu\Omega/\Omega$ + 0.6 Ω ManualFluke 5500A ManualGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance110 $k\Omega$	Electrical	Equipment to Measure	10 mA to 100 mA	$37 \mu A/A + 0.43 \mu A$	HP 3458A	GIDEP / OEM	F1, F2	F, O
Electrical Equipment to Output DC Resistance DC Resi								
Electrical Equipment to Output DC Resistance 0.1 Ω to 11 Ω 0.046 % of Reading + 0.008 Ω Fluke 5500A GIDEP / OEM Manual Fl, F2 F, O Electrical Equipment to Output DC Resistance 11 Ω to 33 Ω 0.031 % of Reading + 0.015 Ω Fluke 5500A GIDEP / OEM Manual Fl, F2 F, O Electrical Equipment to Output DC Resistance 33 Ω to 110 Ω 0.012 % of Reading + 0.015 Ω Fluke 5500A GIDEP / OEM Manual Fl, F2 F, O Electrical Equipment to Output DC Resistance 110 Ω to 330 Ω 74 $\mu\Omega V\Omega$ + 0.15 Ω Fluke 5500A GIDEP / OEM Manual Fl, F2 F, O Electrical Equipment to Output DC Resistance 0.33 kΩ to 1.1 kΩ 76 $\mu\Omega / \Omega$ + 0.06 Ω Fluke 5500A GIDEP / OEM Manual Fl, F2 F, O Electrical Equipment to Output DC Resistance 1.1 kΩ to 3.3 kΩ 83 $\mu\Omega / \Omega$ + 0.06 Ω Fluke 5500A GIDEP / OEM Fl, F2 F, O Electrical Equipment to Output DC Resistance 11 kΩ to 33 kΩ 80 $\mu\Omega / \Omega$ + 0.6 Ω Fluke 5500A GIDEP / OEM Fl, F2 F, O Electrical Equipment to Output DC Resistance </td <td>Electrical</td> <td>Equipment to Measure</td> <td>0.1 A to 1 A</td> <td>$98 \mu A/A + 9.9 \mu A$</td> <td>HP 3458A</td> <td>GIDEP / OEM</td> <td>F1, F2</td> <td>F, O</td>	Electrical	Equipment to Measure	0.1 A to 1 A	$98 \mu A/A + 9.9 \mu A$	HP 3458A	GIDEP / OEM	F1, F2	F, O
DC Resistance0.008 ΩManualElectricalEquipment to Output DC Resistance11 Ω to 33 Ω0.031 % of Reading + 0.015 ΩFluke 5500AManualFl, F2F, OElectricalEquipment to Output DC Resistance33 Ω to 110 Ω0.012 % of Reading + 0.015 ΩFluke 5500AGIDEP / OEM ManualFl, F2F, OElectricalEquipment to Output DC Resistance110 Ω to 330 Ω74 $\mu\Omega\Omega$ + 0.15 ΩFluke 5500AGIDEP / OEM ManualFl, F2F, OElectricalEquipment to Output DC Resistance0.33 $k\Omega$ to 1.1 $k\Omega$ 76 $\mu\Omega\Omega$ + 0.06 ΩFluke 5500AGIDEP / OEM ManualFl, F2F, OElectricalEquipment to Output DC Resistance1.1 $k\Omega$ to 3.3 $k\Omega$ 83 $\mu\Omega\Omega$ + 0.06 ΩFluke 5500AGIDEP / OEM ManualFl, F2F, OElectricalEquipment to Output DC Resistance3.3 $k\Omega$ to 11 $k\Omega$ 76 $\mu\Omega\Omega$ + 0.6 ΩFluke 5500AGIDEP / OEM ManualFl, F2F, OElectricalEquipment to Output DC Resistance11 $k\Omega$ to 33 $k\Omega$ 60 $\mu\Omega\Omega$ + 0.6 ΩFluke 5500AGIDEP / OEM ManualFl, F2F, OElectricalEquipment to Output DC Resistance110 $k\Omega$ to 330 $k\Omega$ 60 $\mu\Omega\Omega$ + 0.6 ΩFluke 5500AGIDEP / OEM ManualFl, F2F, OElectricalEquipment to Output DC Resistance10 $k\Omega$ to 330 $k\Omega$ 76 $\mu\Omega\Omega$ + 6 Ω Fluke 5500AGIDEP / OEM ManualFl, F2F, OElectricalEquipment to Output DC Resistance10 $k\Omega$ + 0.01		DC Current						
Electrical Equipment to Output DC Resistance 11 Ω to 33 Ω 0.031 % of Reading + O.015 Ω Fluke 5500A GIDEP / OEM Manual F1, F2 F, O Electrical Equipment to Output DC Resistance 33 Ω to 110 Ω 0.012 % of Reading + O.015 Ω Fluke 5500A GIDEP / OEM Manual F1, F2 F, O Electrical Equipment to Output DC Resistance 110 Ω to 330 Ω 74 $\mu\Omega/\Omega$ + 0.15 Ω Fluke 5500A GIDEP / OEM Manual F1, F2 F, O Electrical Equipment to Output DC Resistance 0.33 kΩ to 1.1 kΩ 76 $\mu\Omega/\Omega$ + 0.06 Ω Fluke 5500A GIDEP / OEM Manual F1, F2 F, O Electrical Equipment to Output DC Resistance 1.1 kΩ to 3.3 kΩ 83 $\mu\Omega/\Omega$ + 0.06 Ω Fluke 5500A GIDEP / OEM Manual F1, F2 F, O Electrical Equipment to Output DC Resistance 3.3 kΩ to 11 kΩ 76 $\mu\Omega/\Omega$ + 0.6 Ω Fluke 5500A GIDEP / OEM Manual F1, F2 F, O Electrical Equipment to Output DC Resistance 11 kΩ to 33 kΩ 60 $\mu\Omega/\Omega$ + 0.6 Ω Fluke 5500A GIDEP / OEM Manual F1, F2 F, O Electrical Equipme	Electrical		$0.1~\Omega$ to $11~\Omega$		Fluke 5500A	GIDEP / OEM	F1, F2	F, O
DC Resistance0.015 ΩManualElectricalEquipment to Output DC Resistance33 Ω to 110 Ω 0.015 Ω0.012 % of Reading + 0.015 ΩFluke 5500A Fluke 5500AGIDEP / OEM ManualF1, F2 F, OElectricalEquipment to Output DC Resistance110 Ω to 330 Ω OC Resistance74 $\mu\Omega/\Omega + 0.15 \Omega$ Fluke 5500A OC ResistanceFluke 5500A ManualGIDEP / OEM ManualF1, F2 F, OElectricalEquipment to Output DC Resistance0.33 kΩ to 1.1 kΩ OC Resistance76 $\mu\Omega/\Omega + 0.06 \Omega$ SI $\mu\Omega/\Omega + 0.06 \Omega$ Fluke 5500AFluke 5500A GIDEP / OEM ManualF1, F2 F, OF, OElectricalEquipment to Output DC Resistance3.3 kΩ to 11 kΩ OC Resistance76 $\mu\Omega/\Omega + 0.6 \Omega$ OC ResistanceFluke 5500A ManualGIDEP / OEM ManualF1, F2 F, OElectricalEquipment to Output DC Resistance11 kΩ to 33 kΩ OC Resistance60 $\mu\Omega/\Omega + 0.6 \Omega$ Fluke 5500AFluke 5500A GIDEP / OEM ManualGIDEP / OEM ManualF1, F2 F, OElectricalEquipment to Output DC Resistance33 kΩ to 110 kΩ OC Resistance86 $\mu\Omega/\Omega + 6 \Omega$ Fluke 5500A Fluke 5500A Fluke 5500A Fluke 5500A GIDEP / OEM ManualF1, F2 F, OF, OElectricalEquipment to Output DC Resistance110 kΩ to 330 kΩ Fluke 5500A Fluke 5500A Fluke 5500A Fluke 5500A Fluke 5500A GIDEP / OEM ManualF1, F2 F, OElectricalEquipment to Output DC Resistance10.33 MΩ to 1.1 MΩ Fluke 5500A Fluke 5500A Fluke 550OA Fluke 550OAGIDEP / OEM GIDEP / OEM Manua								
ElectricalEquipment to Output DC Resistance33 Ω to 110 Ω0.012 % of Reading + 0.015 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance110 Ω to 330 Ω74 $\mu\Omega/\Omega$ + 0.15 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance0.33 $k\Omega$ to 1.1 $k\Omega$ 76 $\mu\Omega/\Omega$ + 0.06 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance1.1 $k\Omega$ to 3.3 $k\Omega$ 83 $\mu\Omega/\Omega$ + 0.06 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance3.3 $k\Omega$ to 11 $k\Omega$ 76 $\mu\Omega/\Omega$ + 0.6 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance11 $k\Omega$ to 33 $k\Omega$ 60 $\mu\Omega/\Omega$ + 0.6 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance33 $k\Omega$ to 110 $k\Omega$ 86 $\mu\Omega/\Omega$ + 6 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance110 $k\Omega$ to 330 $k\Omega$ 76 $\mu\Omega/\Omega$ + 6 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance0.33 $\mu\Omega$ to 1.1 $\mu\Omega$ 0.01 % of Reading + 55 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output1.1 $\mu\Omega$ 0.01 % of Reading + 55 $\mu\Omega$ F1, F2F, O <td>Electrical</td> <td></td> <td>11Ω to 33Ω</td> <td></td> <td>Fluke 5500A</td> <td>GIDEP / OEM</td> <td>F1, F2</td> <td>F, O</td>	Electrical		11Ω to 33Ω		Fluke 5500A	GIDEP / OEM	F1, F2	F, O
DC Resistance0.015 ΩManualElectricalEquipment to Output DC Resistance110 Ω to 330 Ω74 μΩ/Ω + 0.15 ΩFluke 5500AGIDEP / OEM ManualElectricalEquipment to Output DC Resistance0.33 kΩ to 1.1 kΩ76 μΩ/Ω + 0.06 ΩFluke 5500AGIDEP / OEM ManualElectricalEquipment to Output DC Resistance1.1 kΩ to 3.3 kΩ83 μΩ/Ω + 0.06 ΩFluke 5500AGIDEP / OEM ManualElectricalEquipment to Output DC Resistance3.3 kΩ to 11 kΩ76 μΩ/Ω + 0.6 ΩFluke 5500AGIDEP / OEM ManualElectricalEquipment to Output DC Resistance11 kΩ to 33 kΩ60 μΩ/Ω + 0.6 ΩFluke 5500AGIDEP / OEM ManualElectricalEquipment to Output DC Resistance11 kΩ to 33 kΩ60 μΩ/Ω + 0.6 ΩFluke 5500AGIDEP / OEM ManualElectricalEquipment to Output DC Resistance33 kΩ to 110 kΩ86 μΩ/Ω + 6 ΩFluke 5500AGIDEP / OEM ManualElectricalEquipment to Output DC Resistance110 kΩ to 330 kΩ76 μΩ/Ω + 6 ΩFluke 5500AGIDEP / OEM ManualElectricalEquipment to Output DC Resistance10.33 MΩ to 1.1 MΩ0.01 % of Reading + Sluke 5500AGIDEP / OEM ManualFl, F2F, OElectricalEquipment to Output0.33 MΩ to 1.1 MΩ0.01 % of Reading + Sluke 5500AGIDEP / OEM ManualFl, F2F, OElectricalEquipment to Output0.33 MΩ to 1.1 MΩ to 3.3 MΩ0.012 % of Reading + Fluke 5500AGIDEP / OEM ManualFl, F2F, O		DC Resistance		0.015 Ω		Manual		
ElectricalEquipment to Output DC Resistance110 Ω to 330 Ω $74 \mu\Omega/\Omega + 0.15 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance $0.33 k\Omega$ to $1.1 k\Omega$ $76 \mu\Omega/\Omega + 0.06 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance $1.1 k\Omega$ to $3.3 k\Omega$ $83 \mu\Omega/\Omega + 0.06 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance $3.3 k\Omega$ to $11 k\Omega$ $76 \mu\Omega/\Omega + 0.6 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance $11 k\Omega$ to $33 k\Omega$ $60 \mu\Omega/\Omega + 0.6 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance $33 k\Omega$ to $110 k\Omega$ $86 \mu\Omega/\Omega + 6\Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance $110 k\Omega$ to $330 k\Omega$ $76 \mu\Omega/\Omega + 6\Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance $0.33 M\Omega$ to $0.11 M\Omega$ 0.01% of Reading + 55 Ω Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output $0.33 M\Omega$ to 0.01% of Reading + 55 Ω Fluke 5500AGIDEP / OEMF1, F2F, O	Electrical	Equipment to Output	33 Ω to 110 Ω	0.012 % of Reading +	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
DC ResistanceManualElectricalEquipment to Output DC Resistance0.33 kΩ to 1.1 kΩ76 μΩ/Ω + 0.06 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance1.1 kΩ to 3.3 kΩ83 μΩ/Ω + 0.06 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance3.3 kΩ to 11 kΩ76 μΩ/Ω + 0.6 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance11 kΩ to 33 kΩ60 μΩ/Ω + 0.6 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance33 kΩ to 110 kΩ86 μΩ/Ω + 6 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance110 kΩ to 330 kΩ76 μΩ/Ω + 6 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance110 kΩ to 330 kΩ76 μΩ/Ω + 6 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance0.33 MΩ to 1.1 MΩ 55 Ω0.01% of Reading + 55 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, O		DC Resistance				Manual		
ElectricalEquipment to Output DC Resistance $0.33 \text{ k}\Omega$ to $1.1 \text{ k}\Omega$ $76 \mu\Omega/\Omega + 0.06 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance $1.1 \text{ k}\Omega$ to $3.3 \text{ k}\Omega$ $83 \mu\Omega/\Omega + 0.06 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance $3.3 \text{ k}\Omega$ to $11 \text{ k}\Omega$ $76 \mu\Omega/\Omega + 0.6 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance $11 \text{ k}\Omega$ to $33 \text{ k}\Omega$ $60 \mu\Omega/\Omega + 0.6 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance $33 \text{ k}\Omega$ to $110 \text{ k}\Omega$ $86 \mu\Omega/\Omega + 6 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance $110 \text{ k}\Omega$ to $330 \text{ k}\Omega$ $76 \mu\Omega/\Omega + 6 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance $0.33 \text{ k}\Omega$ to $0.01 \text{ % of Reading +}$ 0.01 Manual GIDEP / OEM 0.01 Manual F1, F2F, O	Electrical	Equipment to Output	110 Ω to 330 Ω	$74 \mu\Omega/\Omega + 0.15 \Omega$	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
DC ResistanceManualElectricalEquipment to Output DC Resistance1.1 kΩ to 3.3 kΩ83 μΩ/Ω + 0.06 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance3.3 kΩ to 11 kΩ76 μΩ/Ω + 0.6 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance11 kΩ to 33 kΩ60 μΩ/Ω + 0.6 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance33 kΩ to 110 kΩ86 μΩ/Ω + 6 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance110 kΩ to 330 kΩ76 μΩ/Ω + 6 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance110 kΩ to 330 kΩ76 μΩ/Ω + 6 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance0.33 MΩ to 1.1 MΩ 55 Ω0.01 % of Reading + 55 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output1.1 MΩ to 3.3 MΩ0.012 % of Reading + 55 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, O		DC Resistance				Manual		
ElectricalEquipment to Output DC Resistance1.1 kΩ to 3.3 kΩ83 μΩ/Ω + 0.06 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance3.3 kΩ to 11 kΩ76 μΩ/Ω + 0.6 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance11 kΩ to 33 kΩ60 μΩ/Ω + 0.6 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance33 kΩ to 110 kΩ86 μΩ/Ω + 6 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance110 kΩ to 330 kΩ76 μΩ/Ω + 6 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance0.33 MΩ to 1.1 MΩ0.01 % of Reading + 55 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance0.33 MΩ to 1.1 MΩ0.01 % of Reading + 55 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, O	Electrical	Equipment to Output	$0.33 \text{ k}\Omega$ to $1.1 \text{ k}\Omega$	$76 \mu\Omega/\Omega + 0.06 \Omega$	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
DC ResistanceManualElectricalEquipment to Output DC Resistance3.3 kΩ to 11 kΩ $76 \mu\Omega/\Omega + 0.6 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance11 kΩ to 33 kΩ $60 \mu\Omega/\Omega + 0.6 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance33 kΩ to 110 kΩ $86 \mu\Omega/\Omega + 6 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance110 kΩ to 330 kΩ $76 \mu\Omega/\Omega + 6 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance0.33 MΩ to 1.1 MΩ 55 Ω0.01 % of Reading + 55 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output1.1 MΩ to 3.3 MΩ0.012 % of Reading + 55 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, O		DC Resistance				Manual		
ElectricalEquipment to Output DC Resistance3.3 kΩ to 11 kΩ $76 \mu\Omega/\Omega + 0.6 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance11 kΩ to 33 kΩ $60 \mu\Omega/\Omega + 0.6 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance33 kΩ to 110 kΩ $86 \mu\Omega/\Omega + 6 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance110 kΩ to 330 kΩ $76 \mu\Omega/\Omega + 6 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance0.33 MΩ to 1.1 MΩ 55 Ω0.01 % of Reading + 55 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance0.012 % of Reading + 55 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, O	Electrical		$1.1 \text{ k}\Omega$ to $3.3 \text{ k}\Omega$	$83 \mu\Omega/\Omega + 0.06 \Omega$	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
DC ResistanceManualElectricalEquipment to Output DC Resistance11 kΩ to 33 kΩ60 μΩ/Ω + 0.6 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance33 kΩ to 110 kΩ86 μΩ/Ω + 6 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance110 kΩ to 330 kΩ76 μΩ/Ω + 6 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance0.33 MΩ to 1.1 MΩ0.01 % of Reading + 55 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output1.1 MΩ to 3.3 MΩ0.012 % of Reading + 55 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, O		DC Resistance						
ElectricalEquipment to Output DC Resistance $11 \text{ k}\Omega$ to $33 \text{ k}\Omega$ $60 \mu\Omega/\Omega + 0.6 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance $33 \text{ k}\Omega$ to $110 \text{ k}\Omega$ $86 \mu\Omega/\Omega + 6 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance $110 \text{ k}\Omega$ to $330 \text{ k}\Omega$ $76 \mu\Omega/\Omega + 6 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance $0.33 \text{ M}\Omega$ to $1.1 \text{ M}\Omega$ 0.01% of Reading + 55 Ω Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output $1.1 \text{ M}\Omega$ to $3.3 \text{ M}\Omega$ 0.012% of Reading + Fluke 5500AFluke 5500AGIDEP / OEM ManualF1, F2F, O	Electrical		$3.3 \text{ k}\Omega \text{ to } 11 \text{ k}\Omega$	$76 \mu\Omega/\Omega + 0.6 \Omega$	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
DC ResistanceManualElectricalEquipment to Output DC Resistance $33 \text{ k}\Omega$ to $110 \text{ k}\Omega$ $86 \mu\Omega/\Omega + 6 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance $110 \text{ k}\Omega$ to $330 \text{ k}\Omega$ $76 \mu\Omega/\Omega + 6 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance $0.33 \text{ M}\Omega$ to $1.1 \text{ M}\Omega$ $0.01 \text{ % of Reading + Single Fluke 5500A}$ GIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output $1.1 \text{ M}\Omega$ to $3.3 \text{ M}\Omega$ $0.012 \text{ % of Reading + Fluke 5500A}$ GIDEP / OEM GIDEP / OEM F1, F2F, O		DC Resistance				Manual		
ElectricalEquipment to Output DC Resistance33 kΩ to 110 kΩ86 μΩ/Ω + 6 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance110 kΩ to 330 kΩ76 μΩ/Ω + 6 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance0.33 MΩ to 1.1 MΩ 55 Ω0.01 % of Reading + 55 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output1.1 MΩ to 3.3 MΩ0.012 % of Reading + 55 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, O	Electrical	Equipment to Output	11 k Ω to 33 k Ω	$60 \mu\Omega/\Omega + 0.6 \Omega$	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
DC ResistanceManualManualElectricalEquipment to Output DC Resistance110 kΩ to 330 kΩ76 μΩ/Ω + 6 ΩFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance0.33 MΩ to 1.1 MΩ0.01 % of Reading + SourceFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output1.1 MΩ to 3.3 MΩ0.012 % of Reading + Fluke 5500AGIDEP / OEM ManualF1, F2F, O		DC Resistance				I .		
ElectricalEquipment to Output DC Resistance110 kΩ to 330 kΩ $76 \mu\Omega/\Omega + 6 \Omega$ Fluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output DC Resistance0.33 MΩ to 1.1 MΩ 55 Ω0.01 % of Reading + ManualFluke 5500AGIDEP / OEM ManualF1, F2F, OElectricalEquipment to Output1.1 MΩ to 3.3 MΩ0.012 % of Reading + 0.012 % of Reading +Fluke 5500AGIDEP / OEM GIDEP / OEMF1, F2F, O	Electrical	Equipment to Output	$33 \text{ k}\Omega \text{ to } 110 \text{ k}\Omega$	$86 \mu\Omega/\Omega + 6 \Omega$	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
		DC Resistance				Manual		
Electrical Equipment to Output DC Resistance 0.33 MΩ to 1.1 MΩ $\frac{0.01 \% \text{ of Reading + }}{55 \Omega}$ Fluke 5500A Fluke 5500A GIDEP / OEM Manual F1, F2 F, O Electrical Equipment to Output 1.1 MΩ to 3.3 MΩ $\frac{0.012 \% \text{ of Reading + }}{0.012 \% \text{ of Reading + }}$ Fluke 5500A GIDEP / OEM F1, F2 F, O	Electrical		$110 \text{ k}\Omega \text{ to } 330 \text{ k}\Omega$	$76 \mu \overline{\Omega/\Omega + 6 \Omega}$	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
DC Resistance 55 Ω Manual Electrical Equipment to Output 1.1 MΩ to 3.3 MΩ 0.012 % of Reading + Fluke 5500A GIDEP / OEM F1, F2 F, O		DC Resistance				Manual		
Electrical Equipment to Output 1.1 MΩ to 3.3 MΩ 0.012 % of Reading + Fluke 5500A GIDEP / OEM F1, F2 F, O	Electrical		$0.33 \text{ M}\Omega \text{ to } 1.1 \overline{\text{M}\Omega}$	0.01 % of Reading +	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
		DC Resistance		**				
DC Resistance 55Ω Manual	Electrical		$1.1 \overline{\mathrm{M}\Omega}$ to $3.3 \overline{\mathrm{M}\Omega}$	0.012 % of Reading +	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
		DC Resistance		55 Ω		Manual		





EML, LLC

998 Elm Hill Pike, Nashville, TN 37210 Contact Name: Stephen Kane Phone: 615-771-2560

FIELD OF	MEASURED	RANGE	EXPANDED	CALIBRATION	CALIBRATION	FLEX CODE	LOCATION
CALIBRATION	INSTRUMENT,	(AND SPECIFICATION	MEASUREMENT	EQUIPMENT AND	MEASUREMENT	FLEX CODE	OF
CALIBRATION	QUANTITY OR GAUGE	WHERE	UNCERTAINTY (±) 1	REFERENCE	METHOD OR		ACTIVITY
	QUALITITI ON GITCGE	APPROPRIATE)	UNCERTAINTY (±)	STANDARDS USED	PROCEDURES USED		11011111
Electrical	Equipment to Output	$3.3 \text{ M}\Omega$ to $11 \text{ M}\Omega$	0.033 % of Reading +	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	DC Resistance		0.55 kΩ		Manual		
Electrical	Equipment to Output	11 M Ω to 33 M Ω	0.089 % of Reading +	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	DC Resistance		0.55 kΩ		Manual		
Electrical	Equipment to Output	$33 \text{ M}\Omega$ to $110 \text{ M}\Omega$	0.28 % of Reading +	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	DC Resistance		5.5 kΩ		Manual		
Electrical	Equipment to Output	$110 \text{ M}\Omega$ to $330 \text{ M}\Omega$	2.8 % of Reading + 17	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	DC Resistance		kΩ		Manual		
Electrical	Equipment to Measure	$0.1~\Omega$ to $10~\Omega$	$23 \mu\Omega/\Omega + 50 \mu\Omega$	HP 3458A	GIDEP / OEM	F1, F2	F, O
	DC Resistance				Manual		
Electrical	Equipment to Measure	10Ω to 100Ω	$9.5 \mu\Omega/\Omega + 0.5 \mathrm{m}\Omega$	HP 3458A	GIDEP / OEM	F1, F2	F, O
	DC Resistance				Manual		
Electrical	Equipment to Measure	$0.1 \text{ k}\Omega$ to $1 \text{ k}\Omega$	$7.5 \mu\Omega/\Omega + 0.5 \mathrm{m}\Omega$	HP 3458A	GIDEP / OEM	F1, F2	F, O
	DC Resistance			3(1)	Manual		
Electrical	Equipment to Measure	$1 \text{ k}\Omega$ to $10 \text{ k}\Omega$	$8.1 \mu\Omega/\Omega + 5 \mathrm{m}\Omega$	HP 3458A	GIDEP / OEM	F1, F2	F, O
	DC Resistance				Manual		
Electrical	Equipment to Measure	$10 \text{ k}\Omega$ to $100 \text{ k}\Omega$	$9.7 \mu\Omega/\Omega + 50 \mathrm{m}\Omega$	HP 3458A	GIDEP / OEM	F1, F2	F, O
	DC Resistance				Manual		
Electrical	Equipment to Measure	$0.1~\mathrm{M}\Omega$ to $1~\mathrm{M}\Omega$	$14 \mu\Omega/\Omega + 2 \Omega$	HP 3458A	GIDEP / OEM	F1, F2	F, O
	DC Resistance				Manual		
Electrical	Equipment to Measure	$1 \text{ M}\Omega$ to $10 \text{ M}\Omega$	$29 \mu\Omega/\Omega + 100 \Omega$	HP 3458A	GIDEP / OEM	F1, F2	F, O
	DC Resistance				Manual		
Electrical	Equipment to Measure	$10~\mathrm{M}\Omega$ to $100~\mathrm{M}\Omega$	0.033 % of Reading +	HP 3458A	GIDEP / OEM	F1, F2	F, O
	DC Resistance		1 kΩ		Manual		
Electrical	Equipment to Measure	$0.1~\mathrm{G}\Omega$ to $1~\mathrm{G}\Omega$	0.42 % of Reading +	HP 3458A	GIDEP / OEM	F1, F2	F, O
	DC Resistance		10 kΩ		Manual		
Electrical	Equipment to Measure	0.33 nF to 0.49 nF	0.14 % of Reading +	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	Capacitance		59 pF		Manual		
Electrical	Equipment to Measure	0.5 nF to 1.09 nF	0.16 % of Reading +	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	Capacitance		59 pF		Manual		





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FIELD OF CALIBRATION	MEASURED INSTRUMENT,	RANGE (AND SPECIFICATION	EXPANDED MEASUREMENT	CALIBRATION EQUIPMENT AND	CALIBRATION MEASUREMENT	FLEX CODE	LOCATION OF
CALIBRATION	QUANTITY OR GAUGE	WHERE APPROPRIATE)	UNCERTAINTY (±) 1	REFERENCE STANDARDS USED	MEASUREMENT METHOD OR PROCEDURES USED		ACTIVITY
Electrical	Equipment to Measure	1.1 nF to 3.29 nF	0.22 % of Reading +	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	Capacitance		59 pF		Manual		
Electrical	Equipment to Measure	3.33 nF to 10.9 nF	0.38 % of Reading +	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	Capacitance		59 pF		Manual		
Electrical	Equipment to Measure	11 nF to 32.9 nF	0.28 % of Reading +	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	Capacitance		130 pF		Manual		
Electrical	Equipment to Measure	33 nF to 109.9 nF	0.14 % of Reading +	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	Capacitance		570 pF		Manual		
Electrical	Equipment to Measure	110 nF to 329.9 nF	0.05 % of Reading +	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	Capacitance		5.8 nF		Manual		
Electrical	Equipment to Measure	330 μF to 1.09 μF	0.14 % of Reading +	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	Capacitance		5.7 nF		Manual		
Electrical	Equipment to Measure	1.1 μF to 3.29 μF	0.08 % of Reading +	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	Capacitance		58 nF		Manual		
Electrical	Equipment to Measure	3.3 μF to 10.9 μF	0.23 % of Reading +	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	Capacitance		56 nF		Manual		
Electrical	Equipment to Measure	11 μF to 32.9 μF	0.11 % of Reading +	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	Capacitance		580 nF		Manual		
Electrical	Equipment to Measure	33 μF to 109.9 μF	0.38 % of Reading +	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	Capacitance		530 nF		Manual		
Electrical	Equipment to Measure	110 μF to 329.9 μF	0.28 % of Reading +	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	Capacitance		5.6 μF		Manual		
Electrical	Equipment to Measure	0.33 mF to 0.33 mF	0.17 % of Reading +	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	Capacitance		58 μF		Manual		
Electrical	Equipment to Output	0.03 mA to 0.33	0.2 % of Reading +	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	AC Current	mA	680 nA		Manual		
	(@ 10 Hz to 20 Hz)						
Electrical	Equipment to Output	0.03 mA to 0.33	0.08 % of Reading +	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	AC Current	mA	700 nA		Manual		
	(@ 20 Hz to 45 Hz)						





EML, LLC

998 Elm Hill Pike, Nashville, TN 37210 Contact Name: Stephen Kane Phone: 615-771-2560

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 AC Current (@ 0.045 kHz to 1 kHz)	0.03 mA to 0.33 mA	0.09 % of Reading + 740 nA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 1 kHz to 5 kHz)	0.03 mA to 0.33 mA	0.4 % of Reading + 650 nA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 5 kHz to 10 kHz)	0.03 mA to 0.33 mA	1.4 % of Reading + 510 nA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 10 Hz to 20 Hz)	0.33 mA to 3.3 mA	0.2 % of Reading + 5.5 μA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 20 Hz to 45 Hz)	0.33 mA to 3.3 mA	0.05 % of Reading + 5.7 μA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 0.045 kHz to 1 kHz)	0.33 mA to 3.3 mA	0.05 % of Reading + 5.7 μA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 1 kHz to 5 kHz)	0.33 mA to 3.3 mA	0.2 % of Reading + 5.5 μA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 5 kHz to 10 kHz)	0.33 mA to 3.3 mA	0.6 % of Reading + 4.5 μA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 10 Hz to 20 Hz)	3.3 mA to 33 mA	0.3 % of Reading + 5.1 μA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 20 Hz to 45 Hz)	3.3 mA to 33 mA	0.2 % of Reading + 5.7 μA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O





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FIELD OF	MEASURED	RANGE	EXPANDED	CALIBRATION	CALIBRATION	FLEX CODE	LOCATION
CALIBRATION	INSTRUMENT, QUANTITY OR GAUGE	(AND SPECIFICATION WHERE APPROPRIATE)	MEASUREMENT UNCERTAINTY (±) ¹	EQUIPMENT AND REFERENCE STANDARDS USED	MEASUREMENT METHOD OR PROCEDURES USED		OF ACTIVITY
Electrical	Equipment to Output AC Current (@ 0.045 kHz to 1 kHz)	3.3 mA to 33 mA	0.1 % of Reading + 5.8 μA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 1 kHz to 5 kHz)	3.3 mA to 33 mA	0.3 % of Reading + 5.1 μA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 5 kHz to 10 kHz)	3.3 mA to 33 mA	0.7 % of Reading + 4.2 μA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 10 Hz to 20 Hz)	33 mA to 330 mA	0.3 % of Reading + 51 μA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 20 Hz to 45 Hz)	33 mA to 330 mA	0.2 % of Reading + 31 µA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 0.045 kHz to 1 kHz)	33 mA to 330 mA	0.2 % of Reading + 35 μA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 1 kHz to 5 kHz)	33 mA to 330 mA	0.3 % of Reading + 9.3 μA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 5 kHz to 10 kHz)	33 mA to 330 mA	0.8 % of Reading + 170 μA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 10 Hz to 45 Hz)	0.33 A to 2.2 A	0.2 % of Reading + 510 μA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 0.045 kHz to 1 kHz)	0.33 A to 2.2 A	0.2 % of Reading + 580 μA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O





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Electrical	Equipment to Output AC Current (@ 1 kHz to 5 kHz)	0.33 A to 2.2 A	0.9 % of Reading + 410 μA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 45 Hz to 65 Hz)	2.2 A to 11 A	0.06 % of Reading + 5.8 mA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 65 Hz to 500 Hz)	2.2 A to 11 A	0.1 % of Reading + 5.5 mA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 0.5 kHz to 1 kHz)	2.2 A to 11 A	0.4 % of Reading + 4.1 mA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 65 Hz to 440 Hz) (Clamp-On)	Up to 110 A	1 % of Reading + 38 mA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Current (@ 45 Hz to 65 Hz) (Clamp-On)	Up to 550 A	1 % of Reading + 770 mA	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure AC Current (@ 60 Hz)	100 mA to 1 A	6 μΑ	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 10 Hz to 45 Hz)	Up to 33 mV	0.18 % of Reading + 20 μV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 45 Hz to 10 kHz)	Up to 33 mV	0.088 % of Reading + 20 μV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O





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FIELD OF CALIBRATION	MEASURED INSTRUMENT,	RANGE (AND SPECIFICATION	EXPANDED MEASUREMENT	CALIBRATION EQUIPMENT AND	CALIBRATION MEASUREMENT	FLEX CODE	LOCATION OF
	QUANTITY OR GAUGE	WHERE APPROPRIATE)	UNCERTAINTY (±) ¹	REFERENCE STANDARDS USED	METHOD OR PROCEDURES USED		ACTIVITY
Electrical	Equipment to Output AC Voltage (@ 10 kHz to 20 kHz)	Up to 33 mV	0.12 % of Reading + 20 μV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 20 kHz to 50 kHz)	Up to 33 mV	0.14 % of Reading + 20 μV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 50 kHz to 100 kHz)	Up to 33 mV	0.21 % of Reading + 33 μV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 100 kHz to 500 kHz)	Up to 33 mV	0.52 % of Reading + 60 μV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 10 Hz to 45 Hz)	33 mV to 330 mV	0.13 % of Reading + 50 μV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 45 Hz to 10 kHz)	33 mV to 330 mV	0.033 % of Reading + 20 µV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 10 kHz to 20 kHz)	33 mV to 330 mV	0.056 % of Reading + 20 μV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 20 kHz to 50 kHz)	33 mV to 330 mV	0.089 % of Reading + 40 μV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 50 kHz to 100 kHz)	33 mV to 330 mV	0.13 % of Reading + 0.17 mV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 100 kHz to 500 kHz)	33 mV to 330 mV	0.56 % of Reading + 0.33 mV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O





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Electrical	Equipment to Output AC Voltage (@ 10 Hz to 45 Hz)	0.33 V to 3.3 V	0.075 % of Reading + 0.25 mV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 45 Hz to 10 kHz)	0.33 V to 3.3 V	0.016 % of Reading + 60 μV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 10 kHz to 20 kHz)	0.33 V to 3.3 V	0.041 % of Reading + 60 μV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 20 kHz to 50 kHz)	0.33 V to 3.3 V	0.074 % of Reading + 0.3 mV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 50 kHz to 100 kHz)	0.33 V to 3.3 V	0.12 % of Reading + 1.7 mV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 100 kHz to 500 kHz)	0.33 V to 3.3 V	0.3 % of Reading + 3.3 mV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 10 Hz to 45 Hz)	3.3 V to 33 V	0.75 % of Reading + 2.5 mV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 45 Hz to 10 kHz)	3.3 V to 33 V	0.023 % of Reading + 0.6 mV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 10 kHz to 20 kHz)	3.3 V to 33 V	0.042 % of Reading + 2.6 mV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 20 kHz to 50 kHz)	3.3 V to 33 V	0.097 % of Reading + 5 mV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O





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Electrical	Equipment to Output AC Voltage (@ 50 kHz to 100 kHz)	3.3 V to 33 V	12 % of Reading + 17 mV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 0.045 kHz to 1 kHz)	33 V to 330 V	0.28 % of Reading + 6.6 mV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 1 kHz to 10 kHz)	33 V to 330 V	0.042 % of Reading + 15 mV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 10 kHz to 20 kHz)	33 V to 330 V	0.046 % of Reading + 33 mV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 0.045 kHz to 1 kHz)	330 V to 1 000 V	0.044 % of Reading + 80 mV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 1 kHz to 5 kHz)	330 V to 1 000 V	0.1 % of Reading + 0.1 mV	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Output AC Voltage (@ 5 kHz to 8 kHz)	330 V to 1 000 V	0.1 % of Reading + 0.5 V	Fluke 5500A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 10 Hz to 40 Hz)	10 mV to 100 mV	0.011 % of Reading + 4 μV	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 0.04 kHz to 1 kHz)	10 mV to 100 mV	0.015 % of Reading + 2 μV	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 1 kHz to 20 kHz)	10 mV to 100 mV	0.014 % of Reading + 2 μV	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O





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Electrical	Equipment to Measure AC Voltage (@ 20 kHz to 50 kHz)	10 mV to 100 mV	0.032 % of Reading + 2 μV	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 50 kHz to 100 kHz)	10 mV to 100 mV	0.082 % of Reading + 2 µV	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 100 kHz o 300 kHz)	10 mV to 100 mV	0.49 % of Reading + 10 μV	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 0.3 MHz to 1 MHz)	10 mV to 100 mV	1 % of Reading + 10 μV	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 10 Hz to 40 Hz)	0.1 V to 10 V	0.012 % of Reading + 40 μV	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 0.04 kHz to 1 kHz)	0.1 V to 10 V	0.013 % of Reading + 20 µV	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 1 kHz to 20 kHz)	0.1 V to 10 V	0.019 % of Reading + 20 μV	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 20 kHz to 50 kHz)	0.1 V to 10 V	0.022 % of Reading + 20 μV	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 50 kHz to 100 kHz)	0.1 V to 10 V	0.045 % of Reading + 20 µV	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 100 kHz o 300 kHz)	0.1 V to 10 V	0.21 % of Reading + 0.1 mV	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O





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Electrical	Equipment to Measure AC Voltage (@ 0.3 MHz to 1 MHz)	0.1 V to 10 V	0.82 % of Reading + 0.1 mV	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 1 Hz to 40 Hz)	10 V to 100 V	0.018 % of Reading + 4 mV	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 0.04 kHz to 1 kHz)	10 V to 100 V	0.019 % of Reading + 2 mV	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 1 kHz to 20 kHz)	10 V to 100 V	0.019 % of Reading + 2 mV	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 20 kHz to 50 kHz)	10 V to 100 V	0.029 % of Reading + 2 mV	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 50 kHz to 100 kHz)	10 V to 100 V	0.10 % of Reading + 2 mV	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure AC Voltage (@ 0.04 kHz to 1 kHz)	100 V to 1 000 V	0.25 % of Reading + 20 mV	HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Equipment to Measure HV AC Voltage	1 kV to 20 kV	1.3% of Reading	Fluke 80K-40 & HP 3458A	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type B	600 °C to 800 °C	0.45 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O





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Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type B	800 °C to 1 000 °C	0.36 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type B	1 000 °C to 1 500 °C	0.32 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type B	1 500 °C to 1 820 °C	0.35 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type C	0 °C to 150 °C	0.32 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type C	150 °C to 650 °C	0.28 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type C	650 °C to 1 000 °C	0.33 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type C	1 000 °C to 1 800 °C	0.51 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O





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FIELD OF CALIBRATION	MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE	EXPANDED MEASUREMENT UNCERTAINTY (±) 1	CALIBRATION EQUIPMENT AND REFERENCE	CALIBRATION MEASUREMENT METHOD OR	FLEX CODE	LOCATION OF ACTIVITY
	Qeni (III I on one on	APPROPRIATE)	` ´	STANDARDS USED	PROCEDURES USED		
Electrical	Temperature Calibration,	1 800 °C to 2 316	0.85 °C	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	Indication and Control	°C		Electrical Simulation of	Manual		
	Equipment used with			Thermocouple Output			
	Thermocouple Type C						
Electrical	Temperature Calibration,	-250 °C to -100 °C	0.3 °C	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	Indication and Control			Electrical Simulation of	Manual		
	Equipment used with			Thermocouple Output			
	Thermocouple Type E						
Electrical	Temperature Calibration,	-100 °C to -25 °C	0.21 °C	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	Indication and Control			Electrical Simulation of	Manual		
	Equipment used with			Thermocouple Output			
	Thermocouple Type E	25.00 . 250.00	0.10.00	F1 1 5500 A	CIDED / CEL (F1 F2	
Electrical	Temperature Calibration,	-25 °C to 350 °C	0.18 °C	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	Indication and Control			Electrical Simulation of	Manual		
	Equipment used with			Thermocouple Output			
T1 4 . 1 1	Thermocouple Type E	250.004 (50.00	0.11.00	T1-1 5500 A	CIDED / OEM	E1 E2	EO
Electrical	Temperature Calibration, Indication and Control	350 °C to 650 °C	0.11 °C	Fluke 5500A Electrical Simulation of	GIDEP / OEM	F1, F2	F, O
	Equipment used with				Manual		
	Thermocouple Type E			Thermocouple Output			
Electrical	Temperature Calibration,	650 °C to 1 000 °C	0.11 °C	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
Electrical	Indication and Control	030 C 10 1 000 C	0.11 C	Electrical Simulation of	Manual	11,12	1,0
	Equipment used with			Thermocouple Output	Wianuan		
	Thermocouple Type E			Thermocoupic Output			
Electrical	Temperature Calibration,	-210 °C to -100 °C	0.31 °C	Fluke 5500A	GIDEP / OEM	F1, F2	F, O
	Indication and Control	210 0 10 100 0	0.01	Electrical Simulation of	Manual	11,12	1, 0
	Equipment used with			Thermocouple Output			
	Thermocouple Type J			1 1			





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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	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type J	-100 °C to -30 °C	0.2 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type J	-30 °C to 150 °C	0.18 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type J	150 °C to 760 °C	0.16 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type J	760 °C to 1 200 °C	0.15 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type K	-200 °C to -100 °C	0.4 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type K	-100 °C to -25 °C	0.23 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type K	-25 °C to 120 °C	0.17 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O



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FIELD OF	MEASURED	RANGE	EXPANDED	CALIBRATION	CALIBRATION	FLEX CODE	LOCATION
CALIBRATION	INSTRUMENT, QUANTITY OR GAUGE	(AND SPECIFICATION WHERE APPROPRIATE)	MEASUREMENT UNCERTAINTY (±) ¹	EQUIPMENT AND REFERENCE STANDARDS USED	MEASUREMENT METHOD OR PROCEDURES USED		OF ACTIVITY
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type K	120 °C to 1 000 °C	0.14 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type K	1 000 °C to 1 372 °C	0.18 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type N	-200 °C to -100 °C	0.41 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type N	-100 °C to -25 °C	0.24 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type N	-25 °C to 120 °C	0.22 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type N	120 °C to 410 °C	0.21 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type N	410 °C to 1 300 °C	0.29 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O



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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	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type R	0°C to 250 °C	0.58 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type R	250 °C to 400 °C	0.36 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type R	400 °C to 1 000 °C	0.35 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type R	1 000 °C to 1 767 °C	0.41 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type S	0 °C to 250 °C	0.48 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type S	250 °C to 400 °C	0.37 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type S	400 °C to 1 000 °C	0.38 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP/ OEM Manual	F1, F2	F, O





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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	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type S	1 000 °C to 1 767 °C	0.47 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type T	-250 °C to -150 °C	0.96 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type T	-150 °C to 0 °C	0.57 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type T	0 °C to 120 °C	0.31 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type T	120 °C to 400 °C	0.17 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type U	-200 °C to 0 °C	0.57 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Temperature Calibration, Indication and Control Equipment used with Thermocouple Type U	0 °C to 600 °C	0.29 °C	Fluke 5500A Electrical Simulation of Thermocouple Output	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Oscilloscopes (Level Sine Amp)(@ 50 kHz Ref.)	5 mV to 5 V (p-p)	0.3 mV + 3 % of Reading	Fluke 5500A /SC600	GIDEP / OEM Manual	F1, F2	F, O





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FIELD OF CALIBRATION	MEASURED INSTRUMENT,	RANGE (AND SPECIFICATION	EXPANDED MEASUREMENT	CALIBRATION EQUIPMENT AND	CALIBRATION MEASUREMENT	FLEX CODE	LOCATION OF
	QUANTITY OR GAUGE	WHERE APPROPRIATE)	UNCERTAINTY (±) ¹	REFERENCE STANDARDS USED	METHOD OR PROCEDURES USED		ACTIVITY
Electrical	Oscilloscopes (Level Sine Flatness) (@ 5 mV to 5.5 V) (@ 50 kHz Ref.)	50 kHz to 100 MHz	0.1 mV + 2 % of Reading	Fluke 5500A /SC600	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Oscilloscopes (Level Sine Flatness) (@ 5 mV to 5.5 V) (@ 50 kHz Ref.)	100 MHz to 300 MHz	0.1 mV + 2.5 % of Reading	Fluke 5500A /SC600	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Oscilloscopes (Level Sine Flatness) (@ 5 mV to 5.5 V) (@ 50 kHz Ref.)	300 MHz to 600 MHz	0.1 mV + 4.5 % of Reading	Fluke 5500A /SC600	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Oscilloscopes (Square Wave) (@ 1 MΩ) (@ 100 Hz)	1 mV to 150 V (p-p)	40 μV + 0.2 % of Reading	Fluke 5500A /SC600	GIDEP / OEM Manual	F1, F2	F, O
Electrical	Oscilloscopes (Square Wave) (@ 50 Ω) (@ 1 kHz)	1 mV to 6.6 V (p-p)	40 μV + 0.35 % of Reading	Fluke 5500A /SC600	GIDEP / OEM Manual	F1, F2	F, O
Time and Frequency	Oscilloscopes (Time Marker Output) (Into 50 Ω)	1 ns to 20 ms	5 μs/s	Fluke 5500A /SC600	GIDEP / OEM Manual	F1, F2	F, O
Time and Frequency	Oscilloscopes (Rise Time)	Up to 300 ps	12 ps	Fluke 5500A /SC600	GIDEP / OEM Manual	F1, F2	F, O
Time and Frequency	Stopwatches/Timers	0.4 hr to 24 hr	0.2 s	HP 55300A GPS /PM6672 Counter	NIST SP 960-12	F1, F2	F, O
Time and Frequency	Rotational Speed Indicating Device	10 RPM to 100,000 RPM	0.34 RPM	HP 55300A GPS/ HP 3325B / PM6672 Counter	GIDEP / OEM Manual	F1, F2	F, O





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FIELD OF				ing conjoinity assessment		DI EN CORE	LOCATION
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
Mechanical	Indirect Verification of Rockwell Hardness Testers HRA	20 HRA to 65 HRA	0.58 HRA	Hardness Standards	ASTM E18	F1, F2	F, O
Mechanical	Indirect Verification of Rockwell Hardness Testers HRA	70 HRA to 78 HRA	0.5 HRA	Hardness Standards	ASTM E18	F1, F2	F, O
Mechanical	Indirect Verification of Rockwell Hardness Testers HRA	80 HRA to 84 HRA	0.37 HRA	Hardness Standards	ASTM E18	F1, F2	F, O
Mechanical	Indirect Verification of Rockwell Hardness Testers HRBW	40 HRBW to 59 HRBW	0.74 HRBW	Hardness Standards	ASTM E18	F1, F2	F, O
Mechanical	Indirect Verification of Rockwell Hardness Testers HRBW	60 HRBW to 79 HRBW	0.92 HRBW	Hardness Standards	ASTM E18	F1, F2	F, O
Mechanical	Indirect Verification of Rockwell Hardness Testers HRBW	80 HRBW to 100 HRBW	0.73 HRBW	Hardness Standards	ASTM E18	F1, F2	F, O
Mechanical	Indirect Verification of Rockwell Hardness Testers HRC	20 HRC to 30 HRC	0.88 HRC	Hardness Standards	ASTM E18	F1, F2	F, O
Mechanical	Indirect Verification of Rockwell Hardness Testers HRC	35 HRC to 55 HRC	0.7 HRC	Hardness Standards	ASTM E18	F1, F2	F, O
Mechanical	Indirect Verification of Rockwell Hardness Testers HRC	60 HRC to 65 HRC	0.42 HRC	Hardness Standards	ASTM E18	F1, F2	F, O
Mechanical	Indirect Verification of Rockwell Hardness Testers HR15N	70 HR15N to 77 HR15N	0.86 HR15N	Hardness Standards	ASTM E18	F1, F2	F, O





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Mechanical	Indirect Verification of Rockwell Hardness Testers HR15N	78 HR15N to 88 HR15N	0.63 HR15N	Hardness Standards	ASTM E18	F1, F2	F, O
Mechanical	Indirect Verification of Rockwell Hardness Testers HR15N	90 HR15N to 92 HR15N	1.4 HR15N	Hardness Standards	ASTM E18	F1, F2	F, O
Mechanical	Indirect Verification of Rockwell Hardness Testers HR30N	42 HR30N to 50 HR30N	0.96 HR30N	Hardness Standards	ASTM E18	F1, F2	F, O
Mechanical	Indirect Verification of Rockwell Hardness Testers HR30N	55 HR30N to 73 HR30N	0.64 HR30N	Hardness Standards	ASTM E18	F1, F2	F, O
Mechanical	Indirect Verification of Rockwell Hardness Testers HR30N	77 HR30N 82 HR30N	0.67 HR30N	Hardness Standards	ASTM E18	F1, F2	F, O
Mechanical	Indirect Verification of Rockwell Hardness Testers HR15TW	74 HR15TW to 80 HR15TW	0.62 HR15TW	Hardness Standards	ASTM E18	F1, F2	F, O
Mechanical	Indirect Verification of Rockwell Hardness Testers HR15TW	81 HR15TW to 86 HR15TW	0.58 HR15TW	Hardness Standards	ASTM E18	F1, F2	F, O
Mechanical	Indirect Verification of Rockwell Hardness Testers HR15TW	87 HR15TW to 93 HR15TW	0.45 HR15TW	Hardness Standards	ASTM E18	F1, F2	F, O
Mechanical	Torque Tools	5 in•lbf to 150 in•lbf	0.38 % of Reading	Snap-on Versatest torque calibration system	GIDEP / OEM Manual	F1, F2	F, O
Mechanical	Torque Tools	150 in•lbf to 400 in•lbf	0.4 % of Reading	Snap-on Versatest torque calibration system	GIDEP / OEM Manual	F1, F2	F, O





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FIELD OF CALIBRATION	MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE	EXPANDED MEASUREMENT UNCERTAINTY (±) 1	CALIBRATION EQUIPMENT AND REFERENCE	CALIBRATION MEASUREMENT METHOD OR	FLEX CODE	LOCATION OF ACTIVITY
Mechanical	Torque Tools	APPROPRIATE) 400 in•lbf to 1 000	0.4 % of Reading Snap-on Versatest		PROCEDURES USED GIDEP / OEM	F1, F2	F, O
Wicchamear	Torque Tools	in•lbf	0.4 70 of Reading	torque calibration	Manual	11,12	1,0
			A	system	Triansai		
Mechanical	Torque Tools	60 ft•lbf to 600	0.52 % of Reading	Snap-on Versatest	GIDEP / OEM	F1, F2	F, O
		ft•lbf		torque calibration	Manual		
				system			
Mechanical	Torque Testers/ Analyzers	5 in•lbf to 150	0.03 % of Reading +	TorqueArms/Wheels	GIDEP / OEM	F1, F2	F, O
		in•lbf	0.52 in•lbf	and Class F Weights	Manual		
Mechanical	Torque Testers/ Analyzers	150 in•lbf to 400	0.14 % of Reading +	TorqueArms/Wheels	GIDEP / OEM	F1, F2	F, O
		in•lbf	0.014 in•lbf	and Class F Weights	Manual		
Mechanical	Torque Testers/ Analyzers	400 in•lbf to 1 000	0.07 % of Reading +	TorqueArms/Wheels	GIDEP / OEM	F1, F2	F, O
		in•lbf	0.49 in•lbf	and Class F Weights	Manual		
Mechanical	Torque Testers/ Analyzers	50 ft•lbf to 600	0.013 % of Reading +	Torque Arms/ Wheels	GIDEP / OEM	F1, F2	F, O
		ft•lbf	0.3 ft•lbf	and Class F Weights	Manual		
Mechanical	Hydraulic Torque Wrench	Up to 20 000 lbf•ft	0.61% of reading	AKO TSD10KPT	CP-051	F1, F3	F, O
		/		Pressure Transducer,			
				AKO TSD6500-3			
				Display, AKO TSD20011			
				Torque Transducer			
Mechanical	Thickness Gages	Up to 60 mil	0.04 mil	Coating thickness	GIDEP / OEM	F1, F2	F, O
Wicemanical	Timekness Gages	op to oo mii	0.0 1 11111	Standards	Manual	11,12	1,0
Mechanical	Thickness Gages	60 mil to 157 mil	0.08 mil	Coating thickness	GIDEP / OEM	F1, F2	F, O
				Standards	Manual		
Mechanical	Thickness Gages	158 mil to 305 mil	0.16 mil	Coating thickness	GIDEP / OEM	F1, F2	F, O
	_			Standards	Manual		
Mechanical	Magnehelic Pressure Gages	0 inH2O to 150	0.02 inH2O	Fluke 725P	GIDEP / OEM	F1, F2	F, O
		inH2O		Pressure Modules	Manual		
					ASME B40.100		



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CALIBRATION	QUANTITY OR GAUGE	WHERE APPROPRIATE)	UNCERTAINTY (±) 1	REFERENCE STANDARDS USED	MEASUREMENT METHOD OR PROCEDURES USED		ACTIVITY
Mechanical	Pressure & Vacuum Gages	-15 psig to 100 psig	0.09 psig	Fluke 700P Pressure Modules	GIDEP / OEM Manual	F1, F2	F, O
			<u> </u>		ASME B40.100		
Mechanical	Pressure & Vacuum Gages	100 psig to 500 psig	0.21 psig	Fluke 700P Pressure Modules	GIDEP / OEM Manual	F1, F2	F, O
					ASME B40.100		
Mechanical	Pressure & Vacuum Gages	500 psig to 1 000	0.56 psig	Fluke 700P Pressure Modules	GIDEP / OEM Manual	F1, F2	F, O
		psig		Pressure Modules	ASME B40.100		
Mechanical	Pressure & Vacuum Gages	1 000 psig to 5 000	2.1 psig	Fluke 700P	GIDEP / OEM	F1, F2	F, O
		psig		Pressure Modules	Manual ASME B40.100		
Mechanical	Pressure & Vacuum Gages	5 000 psig to 10	13 psig	Fluke 700P	GIDEP / OEM	F1, F2	F, O
		000 psig		Pressure Modules	Manual ASME B40.100		
Mass, Force, and	Equipment for Measuring	Up to 100 lbf	0.15 % of Reading +	Rice-Lake and Omega	GIDEP / OEM	F1, F2	F, O
Weighing Devices	Force (Compression and Tension)		0.05 lbf	Load Cells	Manual		
Mass, Force, and	Equipment for Measuring	100 lbf to 500 lbf	0.11 % of Reading +	Rice-Lake and Omega	GIDEP / OEM	F1, F2	F, O
Weighing Devices	Force (Compression and Tension)		0.22 lbf	Load Cells	Manual		
Mass, Force, and	Equipment for Measuring	500 lbf to 1 500 lbf	0.22 % of Reading +	Rice-Lake and Omega	GIDEP / OEM	F1, F2	F, O
Weighing Devices	Force (Compression and Tension)		2.5 lbf	Load Cells	Manual		
Mass, Force, and	Equipment for Measuring	1 500 lbf to 10 000	0.27 % of Reading +	Rice-Lake and Omega	GIDEP / OEM	F1, F2	F, O
Weighing Devices	Force (Compression and Tension)	lbf	11 lbf	Load Cells	Manual		
Mass, Force, and	Equipment for Measuring	10 000 lbf to 30 000	0.13 % of Reading +	Rice-Lake and Omega	GIDEP / OEM	F1, F2	F, O
Weighing Devices	Force (Compression and Tension)	lbf	38 lbf	Load Cells	Manual		



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Accreatiation is grantea to the jacility to perform the following conformity assessment activities:							
FIELD OF CALIBRATION	MEASURED INSTRUMENT,	RANGE (AND SPECIFICATION	EXPANDED MEASUREMENT	CALIBRATION EQUIPMENT AND	CALIBRATION MEASUREMENT	FLEX CODE	LOCATION OF
CALIBRATION	QUANTITY OR GAUGE	WHERE	UNCERTAINTY (±) 1	REFERENCE	METHOD OR		ACTIVITY
		APPROPRIATE)	` ,	STANDARDS USED	PROCEDURES USED		
Mass, Force, and	Mass	1g to 20 g	0.057 mg	ASTM Class 1 Weights	NIST 105-1	F1, F2	F
Weighing Devices				and Analytical Balance	ANSI/ASTM E617		
Mass, Force, and	Mass	50 g	0.087 mg	ASTM Class 1 Weights	NIST 105-1	F1, F2	F
Weighing Devices				and Analytical Balance	ANSI/ASTM E617		
Mass, Force, and	Mass	100 g	0.046 mg	ASTM Class 1 Weights	NIST 105-1	F1, F2	F
Weighing Devices				and Analytical Balance	ANSI/ASTM E617		
Mass, Force, and	Mass	200 g	0.23 mg	ASTM Class 1 Weights	NIST 105-1	F1, F2	F
Weighing Devices				and Analytical Balance	ANSI/ASTM E617		
Mass, Force, and	Mass	500 g	0.53 mg	ASTM Class 1 Weights	NIST 105-1	F1, F2	F
Weighing Devices				and Analytical Balance	ANSI/ASTM E617		
Mass, Force, and	Mass	1 kg	1.4 mg	ASTM Class 1 Weights	NIST 105-1	F1, F2	F
Weighing Devices				and Analytical Balance	ANSI/ASTM E617		
Mass, Force, and	Mass	2 kg	2.9 mg	ASTM Class 1 Weights	NIST 105-1	F1, F2	F
Weighing Devices				and Analytical Balance	ANSI/ASTM E617		
Mass, Force, and	Mass	3 kg	2.5 mg	ASTM Class 1 Weights	NIST 105-1	F1, F2	F
Weighing Devices				and Analytical Balance	ANSI/ASTM E617		
Mass, Force, and	Mass	5 kg	4 mg	ASTM Class 1 Weights	NIST 105-1	F1, F2	F
Weighing Devices				and Analytical Balance	ANSI/ASTM E617		
Mass, Force, and	Mass	10 kg	180 mg	ASTM Class 1 Weights	NIST 105-1	F1, F2	F
Weighing Devices				and Analytical Balance	ANSI/ASTM E617		
Mass, Force, and	Mass	20 kg	160 mg	ASTM Class 1 Weights	NIST 105-1	F1, F2	F
Weighing Devices				and Analytical Balance	ANSI/ASTM E617		
Mass, Force, and	Balances & Scales	1 g to 100 g	$5.4 \mu g/g + 41 \mu g$	NIST Class 1 Weights	NIST Handbook 44	F1, F2	F, O
Weighing Devices							
Mass, Force, and	Balances & Scales	100 g to 250 g	$47 \mu g/g + 140 \mu g$	NIST Class 1 Weights	NIST Handbook 44	F1, F2	F, O
Weighing Devices							
Mass, Force, and	Balances & Scales	250 g to 6 100 g	$0.39 \mu g/g + 1.5 mg$	NIST Class 1 Weights	NIST Handbook 44	F1, F2	F, O
Weighing Devices							
Mass, Force, and	Balances & Scales	6 100 g to 34 kg	$12 \mu g/g + 10 mg$	NIST Class 1 Weights	NIST Handbook 44	F1, F2	F, O
Weighing Devices							





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998 Elm Hill Pike, Nashville, TN 37210 Contact Name: Stephen Kane Phone: 615-771-2560

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	5 lb to 1 000 lb	0.1 % of Reading	NIST Class F Weights	NIST Handbook 44	F1, F2	F, O
Thermodynamic	Equipment for Measuring Temperature	-200 °C to -80 °C	0.014 °C	Fluke 525B & Fluke 5628 PRT	GIDEP / OEM Manual	F1, F2	F, O
Thermodynamic	Equipment for Measuring Temperature	-80 °C to 0 °C	0.021 °C	Fluke 525B & Fluke 5628 PRT	GIDEP / OEM Manual	F1, F2	F, O
Thermodynamic	Equipment for Measuring Temperature	0 °C	0.021 °C	Fluke 525B & Fluke 5628 PRT	GIDEP / OEM Manual	F1, F2	F, O
Thermodynamic	Equipment for Measuring Temperature	0 °C to 100 °C	0.021 °C	Fluke 525B & Fluke 5628 PRT	GIDEP / OEM Manual	F1, F2	F, O
Thermodynamic	Equipment for Measuring Temperature	100 °C to 300 °C	0.031 °C	Fluke 525B & Fluke 5628 PRT	GIDEP / OEM Manual	F1, F2	F, O
Thermodynamic	Equipment for Measuring Temperature	300 °C to 400 °C	0.035 °C	Fluke 525B & Fluke 5628 PRT	GIDEP / OEM Manual	F1, F2	F, O
Thermodynamic	Equipment for Measuring Temperature	400 °C to 600 °C	0.047 °C	Fluke 525B & Fluke 5628 PRT	GIDEP / OEM Manual	F1, F2	F, O
Thermodynamic	Analog and Digital Thermometers (Temperature)	-50 °C to 0 °C	0.083 °C	Fluke 525B & Fluke 5628 and Dry Block	GIDEP / OEM Manual	F1, F2	F, O
Thermodynamic	Analog and Digital Thermometers (Temperature)	0 °C	0.061 °C	Fluke 525B & Fluke 5628 and Dry Block	GIDEP / OEM Manual	F1, F2	F, O
Thermodynamic	Analog and Digital Thermometers (Temperature)	0 °C to 100 °C	0.083 °C	Fluke 525B & Fluke 5628 and Dry Block	GIDEP / OEM Manual	F1, F2	F, O
Thermodynamic	Analog and Digital Thermometers (Temperature)	100 °C to 300 °C	0.086 °C	Fluke 525B & Fluke 5628 and Dry Block	GIDEP / OEM Manual	F1, F2	F, O





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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
Thermodynamic	Analog and Digital	300 °C to 400 °C	0.088 °C	Fluke 525B &	GIDEP / OEM	F1, F2	F, O
	Thermometers			Fluke 5628 and Dry Block	Manual		
Thermodynamic	(Temperature) Analog and Digital Thermometers (Temperature)	400 °C to 600 °C	0.093 °C	Fluke 525B & Fluke 5628 and Dry Block	GIDEP / OEM Manual	F1, F2	F, O
Thermodynamic	Infrared Thermometers	0 °C to 100 °C	1.3 °C	Omega BB4A Blackbody Calibrator	GIDEP / OEM Manual	F1, F2	F, O
Thermodynamic	Infrared Thermometers	200 °C to 400 °C	2.2 °C	Omega BB4A Blackbody Calibrator	GIDEP / OEM Manual	F1, F2	F, O
Thermodynamic	Infrared Thermometers	400 °C to 900 °C	2.6 °C	Omega BB4A Blackbody Calibrator	GIDEP / OEM Manual	F1, F2	F, O
Thermodynamic	Humidity Indicators	10 % RH to 40 % RH	2.4 % RH	Vaisala HMP76/M170 & Salts	GIDEP / OEM Manual NBS 81A	F1, F2	F, O
Thermodynamic	Humidity Indicators	50 % to 90 % RH	3.1 % RH	Vaisala HMP76/M170 & Salts	GIDEP / OEM Manual NBS 81A	F1, F2	F, O





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- 1. The CMC (Calibration and Measurement Capability) 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 CMC 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 laboratories range of calibration capability for all disciplines for which they are 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:

ocation		Location	
Code			
F	Conformity assessment activity	is performed	at the CABs fixed facility
O	Conformity assessment activit location	ty is performe	d onsite at the CABs customer

- 4. Measurement uncertainties obtained for calibrations performed at customer sites can be expected to be larger than the measurement uncertainties obtained at the laboratories 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 laboratories fixed location.
- 5. The term D represents diameter in inches or millimeters as appropriate to the uncertainty statement.
- 6. The term L represents length in inches or millimeters as appropriate to the uncertainty statement.