National Institute of Standards and Technology

NVLAP®

National Voluntary Laboratory Accreditation Program

ISO/IEC 17025:1999
ISO 9002:1994

Scope of Accreditation

Revised 4/27/04

CALIBRATION LABORATORIES **NVLAP LAB CODE 200262-0**

METROPLEX METROLOGY LAB, INC.
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Fort Worth, TX 76118-7103
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NVLAP Code: 20/A01 ANSI/NCSL Z540-1-1994; Part 1 Compliant

DIMENSIONAL

NVLAP Code: 20/D01
Angular

	Range	*Best Uncertainty (±)*[note 1]	*Remarks*
Levels	All Sizes	150 μin per 12 in (3 seconds)	Gage Blocks
Sine Bar & Plates	All Sizes	6.7 seconds	Angle Gage Blocks

NVLAP Code: 20/D01
Chamfer Gages

Range	*Best Uncertainty (±) in μin*[note 1]	*Remarks*
to 2 in	440	Comparison to Master Chamfer Rings

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CALIBRATION LABORATORIES **NVLAP LAB CODE 200262-0**

METROPLEX METROLOGY LAB, INC.

NVLAP Code: 20/D01
Chamfer Gage Standards

Range	*Best Uncertainty (±) in µin*[note 1]	*Remarks*
to 2 in	320	Optical Comparator

NVLAP Code: 20/D01
Protractors

Range	*Best Uncertainty (±) in minutes*[note 1]	*Remarks*
to 360°	3	Optical Comparator

NVLAP Code: 20/D01
Angle Plates

Range	*Best Uncertainty (±) in µin*[note 1]	*Remarks*
to 18 in	140	Comparison to Master Square

NVLAP Code: 20/D01
Angle Blocks

Range	*Best Uncertainty (±) in seconds*[note 1]	*Remarks*
to 45°	7.6	Comparison to Master Sine Plate & Gage Blocks

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CALIBRATION LABORATORIES **NVLAP LAB CODE 200262-0**

METROPLEX METROLOGY LAB, INC.

NVLAP Code: 20/D03

Gage Blocks - Steel and Ceramic

Remarks	*Best Uncertainty (±) in µin*[note 1]	*Remarks*
to 1 in	3.2	Comparison to Master
>1 in to 4 in	(0.8 + 2.9 L)[note 2]	Comparison to Master
Gage Blocks - Chrome Carbide		
to 1 in	5.0	Comparison to Master
>1 in to 4 in	(1.3 + 2.9L)[note 2]	Comparison to Master
Gage Blocks - Long Blocks		
5.0 in to 20 in	(2.2 + 2.28L)[note 2]	Comparison to Master

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NVLAP Code: 20/D05
Length and Diameter

	Range	*Best Uncertainty (±) in µin*[note 1]	*Remarks*
Calipers[note 7]	to 72 in	(600 + 4L)[note 2]	Gage Blocks
OD Micrometers[note 7]	to 36 in	(60 + 14.5L)[note 2]	Gage Blocks Resolution 0.0001
	to 36 in	(38 + 15L)[note 2]	Gage Blocks Resolution 0.00005
ID Micrometers[note 7]	to 1.0 in	70	Comparison to Gage Blocks
ID Micrometer Rods	to 18 in	(30 + 3.2L)[note 2]	Comparison to Gage Blocks
	19 to 30 in	300	Comparison to Gage Blocks
Micrometer End Stds.			
Spherical	to 18 in	(30 + 3.2L)[note 2]	Comparison to Gage Blocks

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Flats	to 18 in.	(20 + 3.6L)[note 2]	Comparison to Gage Blocks
	19 to 60 in	(35 + 4.5L)[note 2]	Comparison to Gage Blocks
Heights Gages[note 7]	to 40 in	(120 + 14L)[note 2]	Comparison to Gage Blocks
Dial Indicators[note 7]	to 8 in	(226 + 4L)[note 2]	Comparison to ULM Resolution 0.0010 in
	to 8 in	(110 + 7.2L)[note 2]	Comparison to ULM Resolution 0.0005 in
	to 8 in	(18 + 14.4L)[note 2]	Comparison to ULM Resolution 0.0001 in
Radius Gages	All Sizes	264	Optical Comparator
Optical Comparators[note 7]			
Linear Travel	to 30 in	150	
Magnification	10x to 100 x	0.14 + 0.2%	

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NVLAP Code: 20/D05
Thickness Gages[note 7]

Range	***Best Uncertainty (±) in µin***[note 1]	***Remarks***
to 1 in	140	Comparison to Gage Blocks Resolution 0.0001
to 1 in	340	Comparison to Gage Blocks Resolution 0.001

NVLAP Code: 20/D05
ID Micrometer (3 point)

Range	***Best Uncertainty (±) in µin***[note 1]	***Remarks***
to 6 in / 150 mm	(122 + 13.2L)[note 2]	Comparison to Master Plain Ring Resolution 0.0001 in
to 6 in / 150 mm	(156 + 11.6L)[note 2]	Comparison to Master Plain Ring Resolution 0.0002 in

NVLAP Code: 20/D05
Depth Gage[note 7]

Range	***Best Uncertainty (±) in µin***[note 1]	Remarks
to 24 in	(740 + 10L)[note 2]	Comparison to gage blocks

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NVLAP Code: 20/D05
Scales (Length)

Range in in	*Best Uncertainty (±) in in*[note 1]	*Remarks*
to 6	0.0012	Optical Comparator
to 12	0.0016	Optical Comparator
to 18	0.0016	Optical Comparator
to 24	0.0020	Optical Comparator
to 36	0.0023	Optical Comparator
to 48	0.0026	Optical Comparator
to 72	0.0033	Optical Comparator
to 96	0.0037	Optical Comparator
to 120	0.0040	Optical Comparator

NVLAP Code: 20/D07
Measuring Wires

	Range in °	*Best Uncertainty (±) in µin* [note 1]	*Remarks*
Thread Wires	29 and 60	16	In accordance with ANSI/ASME B1.2

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NVLAP Code: 20/D11
Spherical Diameter

	Range	*Best Uncertainty (±) in µin*[note 1]	*Remarks*
Plain Plug Gages	to 12 in	(17.6 + 4.36L)[note 2]	Comparison to Gage Blocks
Plain Ring Gages	0.06 in to 0.13 in	57.2	Comparison to Master Ring
	0.13 in to 0.8	22.8	
	0.8 in to 7 in	(4 + 5.15L)[note 2]	
Pin Gages	to 1 in	24	Comparison to Gage

NVLAP Code: 20/D11
Bore Gages

Range	*Best Uncertainty (±) in µin*[note 1]	*Remarks*
to 1 in / 25 mm	230	Comparison to ULM Resolution 0.001 in
to 1 in / 25 mm	58	Comparison to ULM Resolution 0.0005 in
to 1 in / 25 mm	32	Comparison to ULM Resolution 0.0001 in

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CALIBRATION LABORATORIES **NVLAP LAB CODE 200262-0**

METROPLEX METROLOGY LAB, INC.

NVLAP Code: 20/D11
Holtest

Range	*Best Uncertainty (±) in µin*[note 1]	*Remarks*
to 6 in / 150 mm	(122 + 13.2L)[note 2]	Comparison to Master Plain Ring Resolution 0.0001 in
to 6 in / 150 mm	(156 + 11.6L)[note 2]	Comparison to Master Plain Ring Resolution 0.0002 in

NVLAP Code: 20/D12
Surface

	Range	*Best Uncertainty (±) in µin*[note 1]	*Remarks*
Surface Plates[note 7]	to 72 X 144 in	18.4D[note 3]	Laser

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CALIBRATION LABORATORIES **NVLAP LAB CODE 200262-0**

METROPLEX METROLOGY LAB, INC.

NVLAP Code: 20/D14
Threaded Plug and Ring Gages

	Range	*Best Uncertainty (±) in µin*[note 1]	*Remarks*
Threaded Plug Gages			
Pitch Diameter	to 17 in	(64 + 12.4L)[note 2]	Over wire measurement
Major Diameter	to 17 in	(17.6 + 4.36L)[note 2]	Direct Measurement
Threaded Ring Gages			
Pitch Diameter	to 8 in	(156 + 44L)[note 2]	Functional
	to 0.5 in	360	
Minor Diameter	to 3.2 in	(175 + 39L)[note 2]	

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METROPLEX METROLOGY LAB, INC.

ELECTROMAGNETICS - DC/LOW FREQUENCY

NVLAP Code: 20/E02
AC Current Source

Range	*Frequency in Hz*	*Best Uncertainty (±)*[note 1]	*Remarks*
0.033 mA to 0.33 mA	10 to 20	0.27% + 5.20 uA	Fluke 5500 S6
	20 to 1 k	0.126% + 6.70 uA	Fluke 5500 S6
	1 k to 5 k	0.42% + 0.15 uA	Fluke 5500 S6
	5 k to 10 k	1.26% + 0.520 uA	Fluke 5500 S6
0.33 mA to 3.3 mA	10 to 5 k	0.2% + 0.3 μA	Fluke 5500 S6
	5 k to 10 k	0.6% + 3 μA	Fluke 5500 S6
3.3 mA to 33 mA	10 to 5k	0.2% + 3 μA	Fluke 5500 S6
	5 k to 10 k	0.6% + 3 μA	Fluke 5500 S6
33 mA to 330 mA	10 to 5 k	0.2% + 30 μA	Fluke 5500 S6
	5 k to 10 k	0.6% + 30 μA	Fluke 5500 S6
0.330 A to 2.2 A	10 to 1 k	0.2% + 300 μA	Fluke 5500 S6
	1 k to 5 k	0.75% + 300 μA	Fluke 5500 S6
2.2 A to 11 A	45 to 500	0.19% + 1000 uA	Fluke 5500 S6
	500 to 1 k	0.33% + 2000 μA	Fluke 5500 S6

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METROPLEX METROLOGY LAB, INC.

NVLAP Code: 20/E02
AC Current Measure

Range	*Frequency in Hz*	*Best Uncertainty (±)*[note 1]	*Remarks*
100 μA	10 to 20	0.03% + 400 ppm	Agilent 3458A
	20 to 45	0.03% + 150 nA	Agilent 3458A
	45 to 100	0.03% + 60 nA	Agilent 3458A
	100 to 5 k	0.03% to 60 nA	Agilent 3458A
1 mA to 100 mA	10 to 20	0.02% + 400 uA	Agilent 3458A
	20 to 45	0.02% + 150 uA	Agilent 3458A
	45 to 100	0.02% + 60 uA	Agilent 3458A
	100 to 5 k	0.02% + 30 uA	Agilent 3458A
	5 k to 10 k	0.02% + 60 uA	Agilent 3458A
1A	10 to 20	0.02% + 4 mA	Agilent 3458A
	20 to 45	0.02% + 1.6 mA	Agilent 3458A
	45 to 100	0.02% + 0.8 mA	Agilent 3458A
	100 to 5 k	0.02% + 1 mA	Agilent 3458A
	5 k to 10 k	0.02% + 2 mA	Agilent 3458A

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METROPLEX METROLOGY LAB, INC.

NVLAP Code: 20/E05
DC Current Source

Range	*Best Uncertainty (±)[note 1]*	*Remarks*
0 mA to 3.3 mA	0.013% + 0.05 μA	Fluke 5500 S6
0 mA to 33 mA	0.01% + 0.25 μA	Fluke 5500 S6
0 mA to 330 mA	0.01% + 3.3 μA	Fluke 5500 S6
0 A to 2.2 A	0.03% + 44 μA	Fluke 5500 S6
0 A to 11 A	0.033% + 0.68 mA	Fluke 5500 S6

NVLAP Code: 20/E05
Resistance Source

Range in Ω	*Best Uncertainty (±)[note 1]*	*Remarks*
0 to 11	0.012% + 0.008 Ω	Fluke 5500 S6
11 to 330	0.012% + 0.015 Ω	Fluke 5500 S6
330 to 3.3 k	0.009% + 0.332 Ω	Fluke 5500 S6
3.3 k to 33 k	0.009% + 0.6 Ω	Fluke 5500 S6
33 k to 330 k	0.012% + 6 Ω	Fluke 5500 S6
0.330 M to 3.3 M	0.092% + 36.2 Ω	Fluke 5500 S6

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3.3 M to 33 M	0.1% + 550 Ω	Fluke 5550 S6
33 M to 110 M	0.5% + 7.5 kΩ	Fluke 5550 S6
110 M to 330 M	0.5% + 22.4 kΩ	Fluke 5550 S6

NVLAP Code: 20/E05
DC Current Measure

Range	*Best Uncertainty (±)*[note 1]	*Remarks*
0 nA to 100 nA	30 ppm + 400 ppm[note 8]	Agilent 3458A
0 nA to 1 μA	20 ppm + 40 ppm[note 8]	Agilent 3458A
0 μA to 10 μA	20 ppm + 10 ppm[note 8]	Agilent 3458A
0 μA to 100 μA	49.8 ppm + 92 nA	Agilent 3458A
0 mA to 1 mA	24.4 ppm + 5.0 nA	Agilent 3458A
0 mA to 10 mA	14.44 ppm + 5.12 nA	Agilent 3458A
0 mA to 100 mA	42.2 ppm + 0.51 uA	Agilent 3458A
0 A to 1 A	131.1 ppm + 10.9 uA	Agilent 3458A

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NVLAP Code: 20/E05
Resistance Measure

Range	*Best Uncertainty (±)*[note 1]	*Remarks*
10 Ω	17.94 ppm + 0.0792 mΩ	Agilent 3458A
100 Ω	17.2 ppm + 0.5492 mΩ	Agilent 3458A
1 kΩ	8.8 ppm + 0.55 mΩ	Agilent 3458A
10 kΩ	12.48 ppm + 0.0054 Ω	Agilent 3458A
100 kΩ	12.48 ppm + 0.054 Ω	Agilent 3458A
1 MΩ	18.42 ppm + 2.98 Ω	Agilent 3458A
10 MΩ	63.36 ppm + 109.2 Ω	Agilent 3458A
100 MΩ	100 ppm + 500 Ω	Agilent 3458A
1 GΩ	100 ppm + 5M Ω	Agilent 3458A

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METROPLEX METROLOGY LAB, INC.

NVLAP Code: 20/E06
DC Volt Source

Range	*Best Uncertainty (±)*[note 1]	*Remarks*
0 mV to 330 mV	0.006% + 3 μV	Fluke 5500 S6
0 V to 3.3 V	0.005% + 5 μV	Fluke 5500 S6
0 V to 33 V	0.005% + 54 uV	Fluke 5500 S6
30 V to 300 V	0.0055% + 500 μV	Fluke 5500 S6
100 V to 1000 V	0.0055% + 1500 μV	Fluke 5500 S6

NVLAP Code: 20/E06
DC Volt Measure

Range	*Best Uncertainty (±)*[note 1]	*Remarks*
0 mV to 100 mV	7.8 ppm + 880 uV	Agilent 3458A
0 V to 1 V	8.14 ppm + 1.06 uV	Agilent 3458A
0 V to 10 V	8.03 ppm + 5.86 uV	Agilent 3458A
0 V to 100 V	10.98 ppm + 37.6 uV	Agilent 3458A
0 V to 1000 V	17 ppm + 116 uV	Agilent 3458A

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NVLAP Code: 20/E09
AC Volt Source

Range	*Frequency in Hz*	*Best Uncertainty (±)*[note 1]	*Remarks*
1 mV to 33 mV	10 to 45	0.35% + 20 μV	Fluke 5500 S6
	45 to 50 k	0.25% + 20 μV	Fluke 5500 S6
	50 k to 100 k	0.35% + 33 μV	Fluke 5500 S6
	100 k to 500 k	1.0% + 60 μV	Fluke 5500 S6
33 mV to 330 mV	10 to 45	0.25% + 50 μV	Fluke 5500 S6
	45 to 50 k	0.16% + 40 μV	Fluke 5500 S6
	50 k to 100 k	0.24% + 170 μV	Fluke 5500 S6
	100 k to 500 k	0.7% + 330 μV	Fluke 5500 S6
0.33 V to 3.3 V	10 to 45	0.15% + 250 μV	Fluke 5500 S6
	45 to 20 k	0.08% + 60 μV	Fluke 5500 S6
	20 k to 50 k	0.14% + 300 μV	Fluke 5500 S6
	50 k to 100 k	0.24% + 1700 μV	Fluke 5500 S6
	100 k to 500 k	0.5% + 3300 μV	Fluke 5500 S6

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3.3 V to 33 V	10 to 45	0.15% to 2500 μV	Fluke 5500 S6
	45 to 20 k	0.04% + 600 μV	Fluke 5500 S6
	20 k to 50 k	0.08% + 2600 μV	Fluke 5500 S6
	50 k to 100 k	0.19% to 5000 μV	Fluke 5500 S6
	100 k to 500 k	0.24% to 1700 μV	Fluke 5500 S6
33 V to 330 V	45 to 1 k	0.05% + 6.6. mV	Fluke 5500 S6
	1 k to 20 k	0.09% + 33 mV	Fluke 5500 S6
330 V to 1000 V	45 to 1 k	0.05% + 80 mV	Fluke 5500 S6
	1 k to 10 k	0.20% + 500 mV	Fluke 5500 S6

NVLAP Code: 20/E09
AC Volt Measures

Range	*Frequency in Hz*	*Best Uncertainty (±)*[note 1]	*Remarks*
1 mV to 10 mV	1 to 40	0.03 ppm + 0.03 ppm[note 8]	Agilent 3458A
	40 to 1 k	0.02 ppm + 0.011 ppm[note 8]	Agilent 3458A
	1 k to 20 k	0.03 ppm + 0.011 ppm[note 8]	Agilent 3458A
	20 k to 50 k	0.1 ppm + 0.011 ppm[note 8]	Agilent 3458A
	50 k to 100 k	0.5 ppm + 0.011 ppm[note 8]	Agilent 3458A

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	100 k to 300 k	4.0 ppm + 0.02 ppm[note 8]	Agilent 3458A
0.100 V to 10 V	40 to 1 k	100 ppm + 0.2 mV	Agilent 3458A
	1 k to 20 k	160 ppm + 0.22 mV	Agilent 3458A
	20 k to 50 k	300 ppm + 0.5 mV	Agilent 3458A
	50 k to 100 k	560 ppm + 0.28 mV	Agilent 3458A
	100 k to 300 k	0.30% + 1.3 mV	Agilent 3458A
	300 k to 1 M	0.01% + 2 mV	Agilent 3458A
10 V to 100 V	40 to 1 k	260 ppm + 1.4 mV	Agilent 3458A
	1 k to 20 k	260 ppm + 1.4 mV	Agilent 3458A
	20 k to 50 k	300ppm + 8.0 mV	Agilent 3458A
	50 k to 100 k	0.1% + 18 mV	Agilent 3458A
100 V to 1000 V	40 to 1 k	400 ppm + 22 mV	Agilent 3458A
	1 k to 20 k	600 ppm + 20 mV	Agilent 3458A

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METROPLEX METROLOGY LAB, INC.

NVLAP Code: 20/E10
Capacitance Source

Range	*Best Uncertainty (±)*[note 1]	*Remarks*
0.33 nF to 11 nF	0.5% + 0.01 nF	Fluke 5500 S6
11 nF to 330 nF	0.25% + 0.3 nF	Fluke 5500 S6
0.33 μF to 3.3 μF	0.35% + 3 nF	Fluke 5500 S6
3.3 μF to 33 μF	0.40% + 30 nF	Fluke 5500 S6
33 μF to 330 μF	0.70% + 300 nF	Fluke 5500 S6
0.330 mF to 1.1 mF	1.0% + 300 nF	Fluke 5500 S6

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METROPLEX METROLOGY LAB, INC.

NVLAP Code: 20/E20
Oscilloscopes

Range	*Frequency in Hz*	*Best Uncertainty (±)*[note 1]	*Remarks*
Oscilloscope Source Volt Division			
@50 Ω 1.8 Vp-p to 2.2 Vp-p		0.25% + 100 μV	Fluke 5500 S6
@1 MΩ 1.8 Vp-p to 105 Vp-p		0.25% + 100 μV	Fluke 5500 S6
Oscilloscope Source Edge			
0.0045 V to 2.75 V		2% + 200 μV	Fluke 5500 S6
Oscilloscope Source Level Sinewave			
0.005 V to 5.5 V	50 k	2% + 200 μV	Fluke 5500 S6
	0.050 M to 100 M	3.5% + 300 uV	Fluke 5500 S6
	100 M to 300 M	3.74% + 300 uV	Fluke 5500 S6
	300 M to 600 M	4.3% + 300 uV	Fluke 5500 S6
Oscilloscope Source Marker			
5 sec to 100 μsec		25 ppm + 15 mHz	Fluke 5500 S6
50 μsec to 2 μsec		2.5 ppm	Fluke 5500 S6
1 μsec to 20 nsec		2.5 ppm	Fluke 5500 S6

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10 nsec to 2 nsec	2.5 ppm	Fluke 5500 S6

TIME AND FREQUENCY

NVLAP Code: 20/F01
Frequency Measure

Range	*Best Uncertainty (±)*[note 1]	*Remarks*
1 Hz to 40 Hz	0.05% + 33 ppm	Agilent 3458A
40 Hz to 10 MHz	0.01% + 100 ppm	Agilent 3458A

NVLAP Code: 20/F02
Period Measure

Range	*Best Uncertainty (±)*[note 1]	*Remarks*
1 sec to 25 msec	690 ppm + 110 ppm[note 8]	Agilent 3458A
25 msec to 100 nsec	0.01% + 110 ppm	Agilent 3458A

MECHANICAL

NVLAP Code: 20/M06
Torque Wrenches[note 7]

Range	*Best Uncertainty (±) in %*[note 1]	*Remarks*

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METROPLEX METROLOGY LAB, INC.

to 250 lbf·ft	0.56[note 4]	Torque Tester

NVLAP Code: 20/M06
Force Gages[note 7]

Range	***Best Uncertainty (±) in lbf***[note 1]	***Remarks***
up to 200 lbs	(0.14 to 0.002 f)[note 6]	Resolution 0.1 and 0.25
up to 200 lbs	(0.28 + 0.0013 f)[note 6]	Resolution 0.5
up to 200 lbs	(0.58 + 0.0008 f)[note 6]	Resolution 1.0

NVLAP Code: 20/M08
Scales, Weighing[note 7]

Range	***Best Uncertainty (±)***[notes 1, 9]	***Remarks***
Metric		
to 250 mg	0.07 mg	
to 100 g	0.82 mg	
to 200 g	1.64 mg	
to 500 g	3.12 mg	
1000 g	5.89 mg	
1 g to 10000 g	1.287 g	

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to 5 kg	1.190 g
to 10 kg	1.409 g
to 25 kg	1.446 g
to 50 kg	2.887 g
to 150 kg	8.674 g
to 250 kg	14.435 g
Avouidopois	
to 5 lb	0.00121 lb
to 10 lb	0.00237 lb
to 20 lb	0.00478 lb
to 50 lb	0.01207 lb
to 100 lb	0.01754 lb
to 200 lb	0.02612 lb
to 500 lb	0.00470 lb
to 1000 lb	0.07796 lb
Class 4 (English)	
to 100 lb	0.01754 lb

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METROPLEX METROLOGY LAB, INC.

to 500 lb	0.29104 lb
to 1000 lb	0.57972 lb

NVLAP Code: 20/M13
Hardness to Rockwell Hardness Tester Verification[note 6]

Range	***Best Uncertainty (±) in Rockwell Points***[note 1]	***Remarks***
C Scale		ASTM E- 18 Indirect Method Temperature Range 72°F to 81 °F
High	0.90	
Medium	0.90	
Low	0.92	

THERMODYNAMICS

NVLAP Code: 20/T02
Humidity

Range in %	***Best Uncertainty (±) in %***[note 1]	***Remarks***
10 to 50	4.6	Relative HumidityTemperature/Humidity Recorders. Single Verification Point

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ISO/IEC 17025:1999
ISO 9002:1994

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NVLAP Code: 20/T03
Laboratory Thermometers - Liquid-in-glass

Range	*Best Uncertainty (±)*[note 1]	*Remarks*
-5 °C to 125 °C	0.06 °C	Comparison to PRT Hart Micro-Bath
66 °F to 70 °F	1.9 °F	Temperature/Humidity Recorders. Single Point Verification

NVLAP Code: 20/T05
Pressure Gages[note 7]

Range in psi	*Best Uncertainty (±) in %*[note 1]	*Remarks*
0 to 150	(0.024 + 0.0008P) psi[note 5]	Comparison to Master
>150 thru 5000	(4 + 0.003P) psi[note 5]	Comparison to Master
>5000 thru 30000	(24 + 0.0014P) psi[note 5]	Comparison to Master

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NVLAP Code: 20/T07
Temperature RTD, °C

Simulated Output in Ohms

Range in °C	*Best Uncertainty (±) in °C*[note 1]	*Type*
-200 to 0	0.05	Pt385, 100 ohm
0 to 100	0.07	Pt385, 100 ohm
100 to 300	0.09	Pt385, 100 ohm
300 to 400	0.10	Pt385, 100 ohm
400 to 630	0.12	Pt385, 100 ohm
630 to 800	0.23	Pt385, 100 ohm
-200 to 0	0.05	Pt392.6, 100 ohm
0 to 100	0.07	Pt392.6, 100 ohm
100 to 300	0.09	Pt392.6, 100 ohm
300 to 400	0.10	Pt392.6, 100 ohm
400 to 650	0.12	Pt392.6, 100 ohm

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METROPLEX METROLOGY LAB, INC.

-200 to -190	0.25	Pt391.6, 100 ohm
-190 to -80	0.04	Pt391.6, 100 ohm
-80 to 0	0.05	Pt391.6, 100 ohm
0 to 100 °C	0.06	Pt391.6, 100 ohm
100 to 260	0.07	Pt391.6, 100 ohm
260 to 300	0.08	Pt391.6, 100 ohm
300 to 400	0.09	Pt391.6, 100 ohm
400 to 600	0.10	Pt391.6, 100 ohm
600 to 630	0.23	Pt391.6, 100 ohm
-190 to -80	0.02	Pt385, 200 ohm
-80 to 100	0.04	Pt385, 200 ohm
100 to 260	0.05	Pt385, 200 ohm
260 to 300	0.12	Pt385, 200 ohm
300 to 400	0.13	Pt385, 200 ohm
400 to 600	0.14	Pt385, 200 ohm
600 to 630	0.16	Pt385, 200 ohm

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CALIBRATION LABORATORIES **NVLAP LAB CODE 200262-0**

METROPLEX METROLOGY LAB, INC.

-190 to -80	0.01	Pt385, 500 ohm
-80 to 100	0.05	Pt385, 500 ohm
100 to 260	0.06	Pt385, 500 ohm
260 to 400	0.08	Pt385, 500 ohm
400 to 600	0.09	Pt385, 500 ohm
600 to 630	0.11	Pt385, 500 ohm
-190 to -80	0.01	Pt385, 1000 ohm
-80 to 0	0.03	Pt385, 1000 ohm
0 to 100	0.04	Pt385, 1000 ohm
100 to 260	0.05	Pt385, 1000 ohm
260 to 300	0.06	Pt385, 1000 ohm
300 to 600	0.07	Pt385, 1000 ohm
600 to 630	0.23	Pt385, 1000 ohm

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Scope of Accreditation

Revised 4/27/04

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METROPLEX METROLOGY LAB, INC.

NVLAP Code: 20/T07
Simulated Output in Ohms

Range in °C	*Best Uncertainty (±)in °C*[note 1]	*Remarks*
-80 to 100	0.08	Pt Ni385, 120 ohm
100 to 260	0.14	Pt Ni385, 120 ohm
-100 to 260	0.3	Cu427, 10 ohm

NVLAP Code: 20/T08
Temperature Thermocouple °C

Simulated output in V

Range in °C	*Best Uncertainty (±) in °C*[note 1]	*Type*
600 to 800	0.44	B
800 to 1000	0.34	B
1000 to 1550	0.30	B
1550 to 1820	0.33	B

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0 to 150	0.30	C
150 to 650	0.26	C
650 to 1000	0.31	C
1000 to 1800	0.50	C
1800 to 2316	0.84	C
-250 to -100	0.50	E
-100 to -25	0.16	E
-25 to 350	0.14	E
350 to 650	0.16	E
650 to 1000	0.21	E
-210 to -100	0.27	J
-110 to -30	0.16	J
-30 to 150	0.14	J
150 to 760	0.17	J
760 to 1200	0.23	J

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METROPLEX METROLOGY LAB, INC.

-200 to -100	0.332	K
-100 to -25	0.184	K
-25 to 120	0.16	K
120 to 1000	0.26	K
1000 to 1372	0.40	K
-200 to -100	0.37	L
-100 to 800	0.26	L
800 to 900	0.17	L
-200 to -100	0.40	N
-100 to -25	0.22	N
-25 to 120	0.19	N
120 to 410	0.18	N
410 to 1300	0.27	N

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METROPLEX METROLOGY LAB, INC.

0 to 250	0.57	R
250 to 400	0.35	R
400 to 1000	0.33	R
1000 to 1767	0.40	R
0 to 25	0.47	S
250 to 1000	0.36	S
1000 to 1400	0.37	S
1400 to 1767	0.46	S
-250 to -150	0.63	T
-150 to 0	0.24	T
0 to 120	0.16	T
120 to 400	0.14	T
-200 to 0	0.56	U
0 to 600	0.27	U

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ISO 9002:1994

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1. Represents an expanded uncertainty using a coverage factor, k=2.
2. L=Length in inches
3. D=Diagonal Length in feet
4. t= Torque in lbf.ft
5. p= Pressure in psi
6. f=Force in lbf
7. Items available for on-site service. Based on environmental variances uncertainties will generally be greater than those listed in this scope.
8. ± ppm or % of reading + ppm of range
9. ASTM Class 1 and NIST Class F weights used in the calibration of scales.

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