CERTIFICATE OF ACCREDITATION

ANSI National Accreditation Board

11617 Coldwater Road, Fort Wayne, IN 46845 USA

This is to certify that

Greenwich Instrument Co. Inc.,
a division of Parker Medical Inc.
137 New Milford Road East
Bridgewater, CT 06752

has been assessed by ANAB and meets the requirements of international standard

ISO/IEC 17025:2017

while demonstrating technical competence in the field of

CALIBRATION

Refer to the accompanying Scope of Accreditation for information regarding the types of activities to which this accreditation applies

AC-1406
Certificate Number

ANAB Approval

Certificate Valid Through: 08/20/2021
Version No. 005 Issued: 08/12/2019

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

ANSI National Accreditation Board

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Greenwich Instrument Co. Inc., a division of Parker Medical Inc.

137 New Milford Road East
Bridgewater, CT 06752
Timothy Holland 860-350-4304
t.holland@parkermed.com

CALIBRATION

Valid to: **August 20, 2021** Certificate Number: **AC-1406**

Electrical – DC/Low Frequency

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
Dynalyzers and High Voltage Dividers DC High Voltage (kVp)	Nominal Voltage Ratio: 1 k, 10 k, 100 k (5 to 30) kV	 0.22 % of Voltage Ratio	Spellman HVD-200 Voltage Divider, Spellman SL 300 Voltmeter
Dynalyzers and High Voltage Dividers DC High Voltage (kVp)	Nominal Voltage Ratio: 1 k, 10 k, 100 k (30 to 150) kV	 0.2 % of Voltage Ratio	Spellman HVD-200 Voltage Divider, Fluke 8845A Multimeter
Dynalyzers and High Voltage Dividers Voltage Divider Frequency Response Anode Current Sensor	Nominal Voltage Ratio: 1 k, 10 k, 100 k DC to 500 Hz 500 Hz to 30 kHz (1 to 500) mA	 0.6 % of Voltage Ratio 2 % of Voltage Ratio 0.1 % of Voltage Ratio	Fluke 8845A Multimeter
Dynalyzers and High Voltage Dividers Filament Current Sensor	Nominal Voltage Ratio: 1 k, 10 k, 100 k (1 to 8) A	 0.3 % of Voltage Ratio	Fluke 8842A Multimeter, Fluke 80J-10 shunt
Dynalyzer Digital Displays Peak Voltage Anode Current Filament Current	 (20 to 150) kV 1 mA to 1 A (1 to 10) A	 0.1 % of reading 0.1 % of reading 0.2 % of reading	Fluke 8845A Multimeter
Dynalyzer Digital Displays Exposure time	50 ms to 1.5 s	1 ms ± 0.01 % of reading	HP5316B Counter

Electrical – DC/Low Frequency

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
MAS Meter	MAS MA	0.05 % of reading 0.05 % of reading	Fluke 8845A Multimeter HP5316B Counter
DC Voltage - Source	Up to 330 mV 330 mV to 3.3 V (3.3 to 33) V (33 to 330) V 330 V to 1.02 kV	60 µV/V + 3 µV 50 µV/V + 5 µV 50 µV/V + 50 µV 55 µV/V + 500 µV 55 µV/V + 1.5 mV	Fluke 5500A SC600 Multiproduct Calibrator
Resistance - Source	Up to 11 Ω (11 to 33) Ω (33 to 110) Ω (110 to 330) Ω 330 Ω to 1.1 kΩ (1.1 to 3.3) kΩ (3.3 to 11) kΩ (11 to 33) kΩ (33 to 110) kΩ (110 to 330) kΩ 330 k Ω to 1.1 MΩ (1.1 to 3.3) MΩ (3.3 to 11) MΩ (11 to 33) MΩ (33 to 110) MΩ (110 to 330) MΩ	120 µΩ/Ω + 8 mΩ 120 µΩ/Ω + 15 mΩ 90 µΩ/Ω + 15 mΩ 90 µΩ/Ω + 15 mΩ 90 µΩ/Ω + 60 mΩ 90 µΩ/Ω + 60 mΩ 90 µΩ/Ω + 600 mΩ 90 µΩ/Ω + 600 mΩ 110 µΩ/Ω + 6 Ω 120 µΩ/Ω + 6 Ω 150 µΩ/Ω + 55 Ω 150 µΩ/Ω + 55 Ω 600 µ/Ω + 550 Ω 1 mΩ/Ω + 550 Ω 5 mΩ/Ω + 5.5 kΩ 5 mΩ/Ω + 16.5 kΩ	Fluke 5500A SC600 Multiproduct Calibrator
DC Current-Source	Up to 3.3 mA (3.3 to 33) mA (33 to 330) mA 330 mA to 2.2 A (2.2 to 11) A	130 µA/A + 50 nA 100 µA/A + 250 nA 100 µA/A + 3.3 µA 300 µA/A + 44 µA 600 µA/A + 330 µA	Fluke 5500A SC600 Multiproduct Calibrator

Electrical – DC/Low Frequency

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
AC Voltage-Source	(1 to 33) mV		Fluke 5500A SC600 Multiproduct Calibrator
	(10 to 45) Hz	3.5 mV/V + 20 µV	
	45 Hz to 10 kHz	1.5 mV/V + 20 µV	
	(10 to 20) kHz	2 mV/V + 20 µV	
	(20 to 50) kHz	2.5 mV/V + 20 µV	
	(50 to 100) kHz	3.5 mV/V + 33 µV	
	(100 to 500) kHz	10 mV/V + 60 µV	
	(33 to 330) mV		
	(10 to 45) Hz	2.5 mV/V + 50 µV	
	45 Hz to 10 kHz	500 µV/V + 20 µV	
	(10 to 20) kHz	1 mV/V + 20 µV	
	(20 to 50) kHz	1.6 mV/V + 40 µV	
	(50 to 100) kHz	2.4 mV/V + 170 µV	
	(100 to 500) kHz	37 mV/V + 330 µV	
	330 mV to 3.3 V		
	(10 to 45) Hz	1.5 mV/V + 250 µV	
	45 Hz to 10 kHz	300 µV/V + 60 µV	
	(10 to 20) kHz	800 µV/V + 60 µV	
	(20 to 50) kHz	1.4 mV/V + 300 µV	
	(50 to 100) kHz	2.4 mV/V + 1.7 mV	
	(100 to 500) kHz	5 mV/V + 3.3 mV	
	(3.3 to 33) V		
	(10 to 45) Hz	1.5 mV/V + 2.5 mV	
	45 Hz to 10 kHz	400 µV/V + 600 µV	
	(10 to 20) kHz	800 µV/V + 2.6 mV	
	(20 to 50) kHz	1.9 mV/V + 5 mV	
	(50 to 100) kHz	2.4 mV/V + 17 mV	
	(33 to 330) V		
	45 Hz to 1 kHz	500 µV/V + 6.6 mV	
	(1 to 10) kHz	800 µV/V + 15 mV	
	(10 to 20) kHz	900 µV/V + 33 mV	
	330 V to 1.02 kV		
	45 Hz to 1 kHz	500 µV/V + 80 mV	
	(1 to 5) kHz	2 mV/V + 100 mV	
	(5 to 10) kHz	2 mV/V + 500 mV	

Electrical – DC/Low Frequency

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
AC Current-Source	(29 to 330) µA		Fluke 5500A SC600 Multiproduct Calibrator
	(10 to 20) Hz	2.5 mA/A + 150 nA	
	(20 to 45) Hz	1.25 mA/A + 150 nA	
	45 Hz to 1 kHz	1.25 mA/A + 250 nA	
	(1 to 5) kHz	4 mA/A + 150 nA	
	(5 to 10) kHz	12.5 mA/A + 150 nA	
	330 µA to 3.3 mA		
	(10 to 20) Hz	2 mA/A + 300 nA	
	(20 to 45) Hz	1 mA/A + 300 nA	
	45 Hz to 1 kHz	1 mA/A + 300 nA	
	(1 to 5) kHz	2 mA/A + 300 nA	
	(5 to 10) kHz	6 mA/A + 300 nA	
	(3.3 to 33) mA		
	(10 to 20) Hz	2 mA/A + 3 µA	
	(20 to 45) Hz	1 mA/A + 3 µA	
	45 Hz to 1 kHz	900 µA/A + 3 µA	
	(1 to 5) kHz	2 mA/A + 3 µA	
	(5 to 10) kHz	6 mA/A + 3 µA	
	(33 to 330) mA		
	(10 to 20) Hz	2 mA/A + 30 µA	
	(20 to 45) Hz	1 mA/A + 30 µA	
	45 Hz to 1 kHz	900 µA/A + 30 µA	
	(1 to 5) kHz	2 mA/A + 30 µA	
	(5 to 10) kHz	6 mA/A + 30 µA	
	330 mA to 2.2 A		
	(10 to 45) Hz	2 mA/A + 300 µA	
	45 Hz to 1 kHz	1 mA/A + 300 µA	
	(1 to 5) kHz	7.5 mA/A + 300 µA	
	(2.2 to 11) A		
	(45 to 65) Hz	600 µA/A + 2 mA	
	(65 to 500) Hz	1 mA/A + 2 mA	
	500 Hz to 1 kHz	3.3 mA/A + 2 mA	

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 (k=2), corresponding to a confidence level of approximately 95%.

Notes:

1. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-1406.

Vice President