

**CERTIFICATE OF  
 CALIBRATION**



Certificate No. ACT-1272

<b>CERTIFICATION NUMBER</b> CP134-00166-840	<b>IDENTIFICATION</b> EL-022A																																				
<b>FOR</b> Sample Manufacturing 3121 Medalist Drive Oshkosh, WI 54902	<b>SERIAL NUMBER</b> 166																																				
<b>TEST INSTRUMENT</b> Megohmmeter Insulation Tester	<b>PURCHASE ORDER #</b>																																				
<b>MAKE</b> Fluke	<b>PROCEDURES FOLLOWED</b> EL-022A rev. 1																																				
<b>MODEL</b> 1503	<b>STANDARDS USED</b>																																				
<b>CUSTOMER LOCATION</b> Location1 Location2	<table border="1"> <thead> <tr> <th>INSTRUMENT</th> <th>SERIAL NUMBER</th> <th>TRACE NUMBER</th> <th>NEXT CAL</th> </tr> </thead> <tbody> <tr> <td>FVS-275E</td> <td>16783134</td> <td>C0134-20963-690</td> <td>05/31/2025</td> </tr> <tr> <td>FVS-630</td> <td>MY47030276</td> <td>C0313-33867-826</td> <td>11/30/2025</td> </tr> <tr> <td>FVS-851</td> <td>50670064</td> <td>CP020-29237-541</td> <td>01/31/2026</td> </tr> <tr> <td>FVS-985A</td> <td>E1-23336719</td> <td>C0225-35618-823</td> <td>08/31/2025</td> </tr> <tr> <td>FVS-985B</td> <td>E1-23336720</td> <td>C0269-31725-524</td> <td>09/30/2025</td> </tr> <tr> <td>FVS-985C</td> <td>B2-2331946</td> <td>C0269-31883-524</td> <td>09/30/2025</td> </tr> <tr> <td>FVS-991</td> <td>E1-23372388</td> <td>C0275-40555-823</td> <td>09/30/2025</td> </tr> <tr> <td>FVS-A05</td> <td>6375609</td> <td>CP042-30961-087</td> <td>01/23/2026</td> </tr> </tbody> </table>	INSTRUMENT	SERIAL NUMBER	TRACE NUMBER	NEXT CAL	FVS-275E	16783134	C0134-20963-690	05/31/2025	FVS-630	MY47030276	C0313-33867-826	11/30/2025	FVS-851	50670064	CP020-29237-541	01/31/2026	FVS-985A	E1-23336719	C0225-35618-823	08/31/2025	FVS-985B	E1-23336720	C0269-31725-524	09/30/2025	FVS-985C	B2-2331946	C0269-31883-524	09/30/2025	FVS-991	E1-23372388	C0275-40555-823	09/30/2025	FVS-A05	6375609	CP042-30961-087	01/23/2026
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<b>CONDITION RECEIVED</b> In Tolerance																																					
<b>CONDITION RETURNED</b> In Tolerance																																					
<b>CALIBRATED BY</b> Caleb Dutko																																					
<b>REVIEWED/ISSUED</b> D.P. 07/29/2025																																					
<b>CALIBRATION LOCATION</b> FVM																																					
<b>ENVIRONMENT</b> 69.0°F, 31.0%RH, 28.92inHg																																					
<b>CALIBRATION DATE</b> 05/14/2025																																					
<b>RECALIBRATION DUE</b> 05/14/2026																																					

**CALIBRATION RESULTS**

\* DENOTES "OUT OF TOLERANCE"

FEATURE	NOMINAL	LOWER LIMIT	UPPER LIMIT	AS FOUND	AS LEFT	UNCERTAINTY
<b>DC VOLTS TESTS</b>						
600 V Range						
0.4 V	0.4	0.1	0.7	0.5	0.5	6.0E-2
8.0 V	8.0	7.5	8.5	8.0	8.0	6.0E-2
50.0 V	50.0	48.7	51.3	50.1	50.1	6.0E-2
100.0 V	100.0	97.7	102.3	100.1	100.1	6.0E-2
250.0 V	250.0	244.7	255.3	249.9	249.9	6.0E-2
500.0 V	500.0	489.7	510.3	500.0	500.0	6.0E-2
<b>AC VOLTS TESTS</b>						
600 V Range						
AC annunciator on with 8V, 400Hz applied						
120.0 V @ 60 Hz	120.0	117.3	122.7	120.0	120.0	6.0E-2
230.0 V @ 50 Hz	230.0	225.1	234.9	230.0	230.0	6.0E-2
645.0 V @ 400 Hz	645.0	631.8	658.2	644.7	644.7	6.0E-2
<b>DISCHARGE CIRCUIT TEST</b>						
,2000-3000ohm	2500	2000	3000	2544	2544	6.0E-1
<b>INSULATION RESISTANCE</b>						
<b>ACCURACY TESTS</b>						
1000 V Range						
1000 MOhm	1000	980	1020	996	996	6.0E-1

# Fox Valley Metrology

3114 Medalist Drive

Oshkosh, WI 54902

(920) 426-5894 • Fax (920) 426-8120

<https://www.FoxValleyMetrology.com>

## CERTIFICATE OF CALIBRATION



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FEATURE	NOMINAL	LOWER LIMIT	UPPER LIMIT	AS FOUND	AS LEFT	UNCERTAINTY
1.0 MOhm	1.0	0.5	1.5	1.0	1.0	6.0E-2
49.0 MOhm	49.0	47.8	50.2	48.9	48.9	6.0E-2
60.0 MOhm	60.0	58.6	61.4	60.0	60.0	6.0E-2
500 V Range						
0.50 MOhm	0.50	0.44	0.56	0.50	0.50	6.0E-3
EXTERNAL SENSE OF INSULATION TESTS						
Limit of Sense Voltage: > 30 V	>30	>30	>30	Pass	Pass	
SOURCE VOLTAGE ACC OF INSULATION TESTS						
1000V Range						
1Mohm	1000	1000	1200	1041	1041	6.0E-1
500V Range						
500kohm	500	500	600	519	519	6.0E-1
I NOMINAL OF INSULATION TESTS						
1000V Range						
1Mohm	>1000µA	>1000µA	>1000µA	Pass	Pass	
500V Range						
500kohm	>1000µA	>1000µA	>1000µA	Pass	Pass	
I LIMIT TEST						
1000V Range						
50kohm	<2000µA	<2000µA	<2000µA	Pass	Pass	
EARTH BOND RESISTANCE ACCURACY TESTS						
1000 V Range						
810 Ohm	810	795	825	815	815	6.0E-1
990 Ohm	990	972	1008	991	991	6.0E-1
18.00 kOhm	18.00	17.70	18.30	18.04	18.04	6.0E-3
2 OHM OUTPUT CURRENT TEST						
	>200mA	>200mA	>200mA	Pass	Pass	
OPEN CIRCUIT VOLTAGE TEST						
	6.0	4.0	8.0	5.5	5.5	6.0E-2

### COMMENTS

Example certificate, actual results and uncertainties will be reported at the time of calibration. Nominal and limits may vary based on actual make/model.

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- This certificate shall not be altered in any form or reproduced, except in full, without prior written approval from originating lab. These results relate only to the item(s) calibrated. Form Revision 10: 06/04/2024
  - Total expanded measurement uncertainties expressed are based on a confidence level of 95%; coverage factor of (k=2). The statement of compliance in this certificate was issued without taking the uncertainty of measurement into consideration. The customer shall assess the results and uncertainty when determining if the results meet their needs. (This is considered "shared responsibility.") Uncertainties expressed in nominal units.
  - The calibrations within the certificate/report are traceable through NIST or another National Metrology Institute to the International System of Units (SI). Calibration was completed in accordance with ISO/IEC 17025:2017, ANSI/NCSL Z540-1-1994 and ANSI/NCSL Z540.3-2006. Other standards listed upon request.
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