



### Customer Information

Example  
2750 Constitution Blvd.  
Beaver Falls, PA 15010

PO #: Verbal  
Account #: EXA-001  
SO #: 5

### Instrument Identification

Instrument Id: **EXA123**

Noun: Multimeter

Mfr: Fluke

Model: 87

Accuracy: Manufacturer's Specifications

Serial #: 8675309

Department: Quality

Location: Quality Lab

### Certification Information

Reason For Service: Calibration

Type Of Calibration: Normal

As Found Condition: As Found

As Left Condition: Left As Found

Procedure: U96 031 E02 : Multimeter, Digital 87

Technician: Davd Beier

Cal Date: 25 MAR 04

Cal Due: 25 MAR 05

Temperature: 20.0 °C

Humidity: 40.0 %

*This instrument has been calibrated using standards with accuracies traceable to the National Institute of Standards and Technology, derived from natural physical constants, derived from ratio measurements, or compared to nationally or internationally recognized consensus standards.*

*Instrument Calibration Solutions' quality system complies with the applicable requirements of ANSI/NCSL Z540-1 and ISO/IEC 17025.*

*Reported uncertainties and/or "test uncertainty ratios" (TUR's) are expressed as expanded uncertainty values at approximately the 95% confidence level using a coverage factor of K=2. A TUR of 4:1 is routinely observed unless otherwise noted on the Certificate. Statements of compliance, where applicable, are based on test results falling within specified limits with no reduction by the uncertainty of the measurement.*

*Calibration due dates appearing on the Certificate of Calibration and label are determined by the client for administrative purposes and do not imply continued conformance to specification.*

*All results contained herein relate only to the item calibrated. This certificate shall not be reproduced except in full, without the written permission of Instrument Calibration Solutions.*

David Beier, Director of Services

Darrell Martin, Director of Quality

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Calibration History						
WO#	Reason For Service	Type Of Cal	As Found Condition	As Left Condition	Cal Date	Cal Due
3	Calibration	Normal	As Found	Left As Found	25 Mar 2004	25 Mar 2005

In Tolerance    Out of Tolerance

### Calibration Data

Range	Nominal	As Found	As Left	Min	Max
DC Voltage					
400 mV	390.0	390.0	Same	389.5	390.5
4 V	3.900	3.900	Same	3.895	3.905
	-3.900	-3.900	Same	-3.905	-3.895
40 V	39.00	39.00	Same	38.95	39.05
400 V	390.0	390.1	Same	389.5	390.5
1000 V	900	900	Same	898	902
AC Voltage					
400 mV @ 50 Hz	350.0	350.3	Same	347.1	352.9
1 kHz	350.0	350.3	Same	346.1	353.9
20 kHz	350.0	350.2	Same	342.6	357.4
4 V @ 50 Hz	3.500	3.502	Same	3.473	3.527
1 kHz	3.500	3.500	Same	3.461	3.539
20 kHz	3.500	3.498	Same	3.426	3.574
40 V @ 50 Hz	35.00	34.98	Same	34.73	35.27
1 kHz	35.00	34.97	Same	34.61	35.39
20 kHz	35.00	34.98	Same	34.26	35.74
400 V @ 50 Hz	350.0	349.9	Same	347.3	352.7
1 kHz	350.0	350.0	Same	346.1	353.9
20 kHz	100.0	100.0	Same	97.6	102.4
1000 V @ 50 Hz	750	748	Same	742	758
1 kHz	750	749	Same	738	762
DC Current					
400 μA	390.0	390.2	Same	389.0	391.0
4000 μA	3900	3902	Same	3890	3910
4000 μA	-3900	-3900	Same	-3910	-3890
40 mA	39.00	38.98	Same	38.90	39.10
400 mA	390.0	389.8	Same	389.0	391.0
400 mA	-390.0	-390.0	Same	-391.0	-389.0
4000 mA	2000	2002	Same	1994	2006

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In Tolerance    Out of Tolerance

### Calibration Data

Range	Nominal	As Found		As Left		Min	Max
DC Current							
10 A	2.00	2.00		Same		1.97	2.03
(If available) 10 A	9.00	9.01		Same		8.96	9.04
AC Current @ 1 kHz							
400 $\mu$ A	390.0	389.5		Same		385.9	394.1
4000 $\mu$ A	3900	3895		Same		3859	3941
40 mA	39.00	38.96		Same		38.59	39.41
400 mA	390.0	389.6		Same		385.9	394.1
4000 mA	2000	2000		Same		1978	2022
10 A	2.00	2.01		Same		1.96	2.04
(If available) 10 A	9.00	9.01		Same		8.89	9.11
Resistance in Ohms							
400	100.0	100.0		Same		99.7	100.3
4 k	1.000	1.000		Same		0.997	1.003
40 k	10.00	10.00		Same		9.97	10.03
400 k	100.0	100.0		Same		99.7	100.3
4 M	1.000	1.000		Same		0.997	1.003
40 M	10.00	10.00		Same		9.87	10.13
Capacitance							
5 nF	4.00	4.00		Same		3.61	4.39
0.05 $\mu$ F	0.0400	0.0401		Same		0.0394	0.0406
0.5 $\mu$ F	0.400	0.402		Same		0.394	0.406
5 $\mu$ F	4.00	4.01		Same		3.94	4.06
Frequency							
199.99 Hz	100.00	100.00		Same		99.98	100.02
1999.9 Hz	1000.0	1000.0		Same		999.8	1000.2
19.999 kHz	10.000	10.000		Same		9.998	10.002
199.99 kHz	50.00	50.00		Same		48.98	50.02

End of Datasheet

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## Calibration Standards

<u>NIST Traceable #</u>	<u>Instrument ID#</u>	<u>Description</u>	<u>Model</u>	<u>Calibration Date</u>	<u>Date Due</u>
2	ICS-999	Calibrator, Multi-Product	5520A/SC300	25 MAR 2004	25 MAR 2005

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INSTRUMENT CALIBRATION SOLUTIONS

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