

Certificate of Calibration



Illiana Instrumentation Service LLC
1831 Govert Drive
Scherverville, IN 46375



Cert #: 2735 Rev. 3

Item # 1336

Certificate Date: 6/8/2022

CUSTOMER

ILLIANA INSTRUMENTATION SERVICE LLC
1831 GOVERT DRIVE
SCHERERVILLE, IN 46375

Purchase Order:

EQUIPMENT INFORMATION

Item # 1336 Calibration Result: PASS
Manufacturer FLUKE
Model Number 725
Serial Number 9531036
Equip. Location MOBILE
Description PROCESS CALIBRATOR



CALIBRATION INFORMATION

Date received: 6/8/2022 Cal Date: 6/8/2022 Cal. Interval 3 MONTHS Cal. Due Date: 9/8/2022
Technician: PAUL GROLLA Temperature: 64 F Humidity 46 Cal location LAB
Tag

Department:

Notes:

Problems: NONE

Adjustments NONE

Sensitivity

Initial modification offset

Final modification offset

Note: If the modification offset is not zero, readings reflect zero.

Limitations

Accuracy

Quality and traceability statements

This certifies that the above equipment was calibrated using appropriate Illiana Instrumentation technical procedures. At planned intervals, Illiana Instrumentation standards are calibrated by comparison to or measurement against standards which are traceable to the SI units through the NIST or other recognized national measurement institutes or international standard bodies. The results in this report relate only to the item(s) calibrated. If so indicated above, detailed calibration results are attached to this certificate. These results are part of this certificate and this certificate shall not be reproduced except in full, without the written approval of Illiana Instrumentation. Any number of factors not under the control of the calibration laboratory may cause the calibration of the above item(s) to drift before the recommended recalibration date. Supporting documentation relative to traceability and technical procedures used is on file and is available for examination upon request and approval of our quality assurance manager. The above uncertainties represent an expanded uncertainty expressed at approximately 95% confidence level using a coverage factor of k=2. The certificate date on this report constitutes the issue date. Pass/Fail criteria does not take into account measurement uncertainty.

Calibrated By:

Paul Grolla

Approved By:

Laura Grolla

Customer Approval _____

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Calibration Data

Values found OOT and adjusted are indicated by "A" and items left OOT are indicated by "F"

Group	Description	Nominal	Lower Tol.	Upper Tol.	As Found	As Left	Units	Uncert.	OOT
MEASURE	VDC UPPER	0.000	-0.002	0.002	0.000	0.000	VDC	0.000005	
MEASURE	VDC UPPER	15.000	14.995	15.005	14.999	14.999	VDC	0.000005	
MEASURE	VDC UPPER	30.000	29.992	30.008	29.998	29.998	VDC	0.000005	
MEASURE	mVDC LOWER	0.000	-0.020	0.020	0.000	0.000	mVDC	0.0032	
MEASURE	mVDC LOWER	45.00	44.97	45.03	45.000	45.000	mVDC	0.0032	
MEASURE	mVDC LOWER	90.00	89.96	90.04	90.000	90.000	mVDC	0.0032	
MEASURE	VDC LOWER	0.000	-0.002	0.002	0.000	0.000	VDC	0.000005	
MEASURE	VDC LOWER	10.000	9.996	10.004	9.999	9.999	VDC	0.000005	
MEASURE	VDC LOWER	20.000	19.994	20.006	19.998	19.998	VDC	0.000005	
MEASURE	mADC UPPER	4.000	3.997	4.003	4.000	4.000	maDC	0.0016	
MEASURE	mADC UPPER	12.000	11.995	12.005	12.000	12.000	maDC	0.0016	
MEASURE	mADC UPPER	24.000	23.993	24.007	24.000	24.000	maDC	0.0057	
MEASURE	mADC LOWER	4.000	3.997	4.003	4.000	4.000	maDC	0.0016	
MEASURE	mADC LOWER	12.000	11.995	12.005	12.000	12.000	maDC	0.0016	
MEASURE	mADC LOWER	24.000	23.993	24.007	24.000	24.000	maDC	0.0057	
MEASURE	FREQ. LOWER	10.00	9.98	10.02	10.000	10.000	kHz	0.0025	
SOURCE	FREQ. LOWER	10.00000	9.97500	10.02500	9.99988	9.99988	kHz	0.0033	
MEASURE	OHMS LOWER	15.00	14.90	15.10	15.07	15.07	Ohm	0.025	
MEASURE	OHMS LOWER	350.00	349.90	350.10	350.10	350.10	Ohm	0.025	
MEASURE	OHMS LOWER	500.0	499.5	500.5	500.1	500.1	Ohm	0.049	
MEASURE	OHMS LOWER	1500.0	1499.5	1500.5	1500.3	1500.3	Ohm	0.3	
MEASURE	OHMS LOWER	3200.0	3199.0	3201.0	3200.5	3200.5	Ohm	0.3	
MEASURE	OHMS RTD LOWER	350.00	349.80	350.20	350.04	350.04	Ohm	0.049	
MEASURE	TYPE K	-180.0	-180.6	-179.4	-180.4	-180.4	°C	1.2	
MEASURE	TYPE K	0.0	-0.6	0.6	-0.2	-0.2	°C	1.2	



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MEASURE	TYPE K	400.0	399.4	400.6	399.6	399.6	°C	1.2	
MEASURE	TYPE K	800.0	799.2	800.8	799.8	799.8	°C	1.2	
MEASURE	TYPE K	1000.0	999.0	1001.0	999.7	999.7	°C	1.2	
MEASURE	TYPE K	1300.0	1298.7	1301.3	1299.6	1299.6	°C	1.2	
SOURCE	TYPE K	-180.00	-180.60	-179.40	-179.60	-179.60	°C	1.2	
SOURCE	TYPE K	0.00	-0.60	0.60	0.30	0.30	°C	1.2	
SOURCE	TYPE K	400.00	399.40	400.60	399.88	399.88	°C	1.2	
SOURCE	TYPE K	800.00	799.20	800.80	799.86	799.86	°C	1.2	
SOURCE	TYPE K	1000.00	999.00	1001.00	999.82	999.82	°C	1.2	
SOURCE	TYPE K	1300.00	1298.70	1301.30	1299.81	1299.81	°C	1.2	
MEASURE	TYPE J	-200.0	-200.6	-199.4	-200.6	-200.6	°C	1.2	
MEASURE	TYPE J	0.0	-0.6	0.6	-0.3	-0.3	°C	1.2	
MEASURE	TYPE J	300.0	299.4	300.6	299.6	299.6	°C	1.2	
MEASURE	TYPE J	600.0	599.4	600.6	599.7	599.7	°C	1.2	
MEASURE	TYPE J	900.0	899.1	900.9	899.6	899.6	°C	1.2	
MEASURE	TYPE J	1200.0	1198.8	1201.2	1199.6	1199.6	°C	1.2	
SOURCE	TYPE J	-200.00	-200.60	-199.40	-199.55	-199.55	°C	1.2	
SOURCE	TYPE J	0.00	-0.60	0.60	0.32	0.32	°C	1.2	
SOURCE	TYPE J	300.00	299.40	300.60	299.97	299.97	°C	1.2	
SOURCE	TYPE J	600.00	599.40	600.60	600.03	600.03	°C	1.2	
SOURCE	TYPE J	900.00	899.10	900.90	900.00	900.00	°C	1.2	
SOURCE	TYPE J	1200.00	1198.80	1201.10	1199.88	1199.88	°C	1.2	
MEASURE	TYPE S	1000.0	999.0	1001.0	999.0	999.0	°C	1.2	
MEASURE	TYPE S	1150.0	1149.0	1151.0	1149.0	1149.0	°C	1.2	
MEASURE	TYPE S	1300.0	1299.0	1301.0	1299.0	1299.0	°C	1.2	
MEASURE	TYPE S	1450.0	1449.0	1451.0	1449.0	1449.0	°C	1.2	
MEASURE	TYPE S	1600.0	1599.0	1601.0	1599.0	1599.0	°C	1.2	
MEASURE	TYPE S	1750.0	1749.0	1751.0	1749.0	1749.0	°C	1.2	
SOURCE	TYPE S	1000.00	999.00	1001.00	999.90	999.90	°C	1.2	
SOURCE	TYPE S	1150.00	1148.90	1151.10	1149.84	1149.84	°C	1.2	
SOURCE	TYPE S	1300.00	1298.70	1301.30	1299.87	1299.87	°C	1.2	



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SOURCE	TYPE S	1450.00	1448.60	1451.40	1449.70	1449.70	°C	1.2	
SOURCE	TYPE S	1600.00	1598.40	1601.60	1599.70	1599.70	°C	1.2	
SOURCE	TYPE S	1750.00	1748.30	1751.70	1749.60	1749.60	°C	1.2	
MEASURE	TYPE N	0.0	-0.6	0.6	-0.4	-0.4	°C	1.2	
MEASURE	TYPE N	200.0	199.4	200.6	199.6	199.6	°C	1.2	
MEASURE	TYPE N	500.0	499.4	500.6	499.7	499.7	°C	1.2	
MEASURE	TYPE N	800.0	799.2	800.8	799.6	799.6	°C	1.2	
MEASURE	TYPE N	1100.0	1098.9	1101.1	1099.7	1099.7	°C	1.2	
MEASURE	TYPE N	1300.0	1298.7	1301.3	1299.6	1299.6	°C	1.2	
SOURCE	TYPE N	0.00	-0.60	0.60	0.35	0.35	°C	1.2	
SOURCE	TYPE N	200.00	199.40	200.60	200.21	200.21	°C	1.2	
SOURCE	TYPE N	500.00	499.40	500.60	500.18	500.18	°C	1.2	
SOURCE	TYPE N	800.00	799.20	800.80	800.07	800.07	°C	1.2	
SOURCE	TYPE N	1100.00	1098.90	1101.10	1100.02	1100.02	°C	1.2	
SOURCE	TYPE N	1300.00	1298.70	1301.30	1300.02	1300.02	°C	1.2	
MEASURE	TYPE T	-200.0	-200.6	-199.4	-199.8	-199.8	°C	1.2	
MEASURE	TYPE T	0.0	-0.6	0.6	0.0	0.0	°C	1.2	
MEASURE	TYPE T	100.0	99.4	100.6	100.1	100.1	°C	1.2	
MEASURE	TYPE T	200.0	199.4	200.6	200.0	200.0	°C	1.2	
MEASURE	TYPE T	300.0	299.4	300.6	300.0	300.0	°C	1.2	
MEASURE	TYPE T	400.0	399.4	400.6	399.9	399.9	°C	1.2	
SOURCE	TYPE T	-200.00	-200.60	-199.40	-200.11	-200.11	°C	1.2	
SOURCE	TYPE T	0.00	-0.60	0.60	0.03	0.03	°C	1.2	
SOURCE	TYPE T	100.00	99.40	100.60	99.70	99.70	°C	1.2	
SOURCE	TYPE T	200.00	199.40	200.60	199.80	199.80	°C	1.2	
SOURCE	TYPE T	300.00	299.40	300.60	299.64	299.64	°C	1.2	
SOURCE	TYPE T	400.00	399.40	400.60	399.76	399.76	°C	1.2	
SOURCE	mADC LOWER	4.0000	3.9972	4.0028	4.0021	4.0021	maDC	0.01	
SOURCE	mADC LOWER	12.0000	11.9956	12.0044	11.9990	11.9990	maDC	0.01	
SOURCE	mADC LOWER	24.0000	23.9932	24.0068	23.9980	23.9980	maDC	0.012	



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Group	Description	Nominal	Lower Tol.	Upper Tol.	As Found	As Left	Units	Uncert.	OOT
SOURCE	mVDC LOWER	0.00000	-0.02000	0.02000	-0.00500	-0.00500	mVDC	0.0045	
SOURCE	mVDC LOWER	45.00000	44.97000	45.03000	44.98700	44.98700	mVDC	0.01	
SOURCE	mVDC LOWER	100.00000	99.96000	100.04000	99.97900	99.97900	mVDC	0.01	
SOURCE	VDC LOWER	0.000000	-0.002000	0.002000	0.000021	0.000021	VDC	0.0000045	
SOURCE	VDC LOWER	5.0000	4.9970	5.0030	4.998000	4.998000	VDC	0.00053	
SOURCE	VDC LOWER	10.0000	9.9960	10.0040	9.996800	9.996800	VDC	0.0058	
SOURCE	OHMS LOWER	15.000	14.900	15.100	15.009	15.009	Ohm	0.0018	
SOURCE	OHMS LOWER	360.000	359.900	360.100	360.014	360.014	Ohm	0.016	
SOURCE	OHMS LOWER	500.00	499.50	500.50	500.370	500.370	Ohm	0.016	
SOURCE	OHMS LOWER	1500.00	1499.50	1500.50	1500.260	1500.260	Ohm	0.016	
SOURCE	OHMS LOWER	3200.00	3199.00	3201.00	3200.340	3200.340	Ohm	0.016	

Standards Used

I.D.	Model	Description	Manufacturer	Serial No.
1546	525B	TEMPERATURE/PRESSURE CAL	FLUKE	2041092
1731	34401A	DIGITAL MULTIMETER	HEWLETT PACKARD/AGILENT	3146A27542

Procedures Used

Name	Description
WI-523 CALIBRATORS	WI-523 CALIBRATORS