

Certificate of Calibration



Illiana Instrumentation Service LLC
1831 Govert Drive
Scherverville, IN 46375



Cert #: 11461 Rev. 1 Item # 1468 Certificate Date: 9/1/2023

CUSTOMER

ILLIANA INSTRUMENTATION SERVICE LLC
1831 GOVERT DRIVE
SCHERERVILLE, IN 46375

Purchase Order:

EQUIPMENT INFORMATION

Item # 1468 Calibration Result: PASS
Manufacturer FLUKE
Model Number 725
Serial Number 1100083
Equip. Location MOBILE
Description PROCESS CALIBRATOR

CALIBRATION INFORMATION

Date received: 9/1/2023 Cal Date: 9/1/2023 Cal. Interval 3 MONTHS Cal. Due Date: 12/1/2023
Technician: PAUL GROLLA Temperature: 70 F Humidity 51 Cal location LAB
Tag

Department:

Notes:

Problems: None

Adjustments None

Equipment Notes

Sensitivity OKAY
Initial modification offset 0
Final modification offset 0
Note: If the modification offset is not zero, readings reflect zero
Limitations NONE
Accuracy VARIES BY POINT

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 _____



Cert #: 11461 Rev. 1

Item # 1468

Certificate Date: 9/1/2023

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	0.0000	-0.0020	0.0020	0.000	0.000	VDC	0.000005	
MEASURE	VDC UPPER	15.0000	14.9950	15.0050	15.000	15.000	VDC	0.0051	
MEASURE	VDC UPPER	30.0000	29.9920	30.0080	30.000	30.000	VDC	0.0051	
MEASURE	mVDC LOWER	0.0000	-0.0200	0.0200	0.000	0.000	mVDC	0.0033	
MEASURE	mVDC LOWER	45.0000	44.9700	45.0300	44.990	44.990	mVDC	0.0033	
MEASURE	mVDC LOWER	90.0000	89.9600	90.0400	89.990	89.990	mVDC	0.0033	
MEASURE	VDC LOWER	0.0000	-0.0020	0.0020	0.000	0.000	VDC	0.000005	
MEASURE	VDC LOWER	10.0000	9.9960	10.0040	9.998	9.998	VDC	0.0051	
MEASURE	VDC LOWER	20.0000	19.9940	20.0060	19.996	19.996	VDC	0.0051	
MEASURE	mADC UPPER	4.0000	3.9970	4.0030	4.000	4.000	maDC	0.0016	
MEASURE	mADC UPPER	12.0000	11.9950	12.0050	12.001	12.001	maDC	0.0016	
MEASURE	mADC UPPER	24.0000	23.9930	24.0070	24.003	24.003	maDC	0.0057	
MEASURE	mADC LOWER	4.0000	3.9970	4.0030	3.999	3.999	maDC	0.0016	
MEASURE	mADC LOWER	12.0000	11.9950	12.0050	11.999	11.999	maDC	0.0016	
MEASURE	mADC LOWER	24.0000	23.9930	24.0070	23.999	23.999	maDC	0.0057	
MEASURE	FREQ. LOWER	10.0000	9.9800	10.0200	10.000	10.000	kHz	0.0025	
SOURCE	FREQ. LOWER	10.00000	9.97500	10.02500	9.99990	9.99990	kHz	0.0033	
MEASURE	OHMS LOWER	15.00	14.90	15.10	15.04	15.04	Ohm	0.025	
MEASURE	OHMS LOWER	350.00	349.90	350.10	350.07	350.07	Ohm	0.025	
MEASURE	OHMS LOWER	500.00	499.50	500.50	500.0	500.0	Ohm	0.3	
MEASURE	OHMS LOWER	1500.00	1499.50	1500.50	1500.1	1500.1	Ohm	0.3	
MEASURE	OHMS LOWER	3200.00	3199.00	3201.00	3200.2	3200.2	Ohm	0.3	
MEASURE	OHMS RTD LOWER	350.00	349.80	350.20	350.10	350.10	Ohm	0.3	
MEASURE	TYPE K	-180.00	-180.60	-179.40	-180.20	-180.20	°C	0.19	
MEASURE	TYPE K	0.0	-0.6	0.6	-0.10	-0.10	°C	0.19	



Illiana Instrumentation Service LLC
 1831 Govert Drive
 Schererville, IN 46375



Cert #: 11461 Rev. 1 Item # 1468 Certificate Date: 9/1/2023

Group	Description	Nominal	Lower Tol.	Upper Tol.	As Found	As Left	Units	Uncert.	OOT
MEASURE	TYPE K	400.0	399.4	400.6	399.80	399.80	°C	0.19	
MEASURE	TYPE K	800.0	799.2	800.8	799.80	799.80	°C	0.19	
MEASURE	TYPE K	1000.0	999.0	1001.0	999.80	999.80	°C	0.19	
MEASURE	TYPE K	1300.0	1298.7	1301.3	1299.80	1299.80	°C	0.19	
SOURCE	TYPE K	-180.00	-180.60	-179.40	-179.64	-179.64	°C	0.16	
SOURCE	TYPE K	0.00	-0.60	0.60	0.19	0.19	°C	0.16	
SOURCE	TYPE K	400.00	399.40	400.60	400.12	400.12	°C	0.16	
SOURCE	TYPE K	800.00	799.20	800.80	800.05	800.05	°C	0.16	
SOURCE	TYPE K	1000.00	999.00	1001.00	1000.01	1000.01	°C	0.16	
SOURCE	TYPE K	1300.00	1298.70	1301.30	1300.01	1300.01	°C	0.16	
MEASURE	TYPE J	-200.0	-200.6	-199.4	-200.3	-200.3	°C	0.17	
MEASURE	TYPE J	0.0	-0.6	0.6	0.0	0.0	°C	0.17	
MEASURE	TYPE J	300.0	299.4	300.6	299.9	299.9	°C	0.17	
MEASURE	TYPE J	600.0	599.4	600.6	599.9	599.9	°C	0.17	
MEASURE	TYPE J	900.0	899.1	900.9	899.8	899.8	°C	0.17	
MEASURE	TYPE J	1200.0	1198.8	1201.2	1199.9	1199.9	°C	0.17	
SOURCE	TYPE J	-200.00	-200.60	-199.40	-199.50	-199.50	°C	0.13	
SOURCE	TYPE J	0.00	-0.60	0.60	0.20	0.20	°C	0.13	
SOURCE	TYPE J	300.00	299.40	300.60	300.10	300.10	°C	0.13	
SOURCE	TYPE J	600.00	599.40	600.60	600.10	600.10	°C	0.13	
SOURCE	TYPE J	900.00	899.10	900.90	900.30	900.30	°C	0.13	
SOURCE	TYPE J	1200.00	1198.80	1201.10	1200.30	1200.30	°C	0.13	
MEASURE	TYPE S	0.0	-1.0	1.0	0.0	0.0	°C	0.6	
MEASURE	TYPE S	400.0	399.0	401.0	399.0	399.0	°C	0.6	
MEASURE	TYPE S	800.0	799.0	801.0	799.0	799.0	°C	0.6	
MEASURE	TYPE S	1200.0	1199.0	1201.0	1199.0	1199.0	°C	0.6	
MEASURE	TYPE S	1600.0	1599.0	1601.0	1599.0	1599.0	°C	0.6	
MEASURE	TYPE S	1750.0	1749.0	1751.0	1749.0	1749.0	°C	0.6	
SOURCE	TYPE S	0.00	-1.00	1.00	0.30	0.30	°C	0.6	
SOURCE	TYPE S	400.00	399.00	401.00	399.80	399.80	°C	0.6	
SOURCE	TYPE S	800.00	799.00	801.00	799.80	799.80	°C	0.6	



Illiana Instrumentation Service LLC
 1831 Govert Drive
 Schererville, IN 46375



Cert #: 11461 Rev. 1 Item # 1468 Certificate Date: 9/1/2023

Group	Description	Nominal	Lower Tol.	Upper Tol.	As Found	As Left	Units	Uncert.	OOT
SOURCE	TYPE S	1200.00	1198.70	1201.30	1199.80	1199.80	°C	0.6	
SOURCE	TYPE S	1600.00	1598.40	1601.60	1600.70	1600.70	°C	0.6	
SOURCE	TYPE S	1750.00	1748.30	1751.70	1749.70	1749.70	°C	0.6	
MEASURE	TYPE N	0.0	-0.6	0.6	-0.4	-0.4	°C	0.2	
MEASURE	TYPE N	200.0	199.4	200.6	199.5	199.5	°C	0.2	
MEASURE	TYPE N	500.0	499.4	500.6	499.6	499.6	°C	0.2	
MEASURE	TYPE N	800.0	799.2	800.8	799.7	799.7	°C	0.2	
MEASURE	TYPE N	1100.0	1098.9	1101.1	1099.7	1099.7	°C	0.2	
MEASURE	TYPE N	1300.0	1298.7	1301.3	1299.5	1299.5	°C	0.2	
SOURCE	TYPE N	0.00	-0.60	0.60	0.40	0.40	°C	0.2	
SOURCE	TYPE N	200.00	199.40	200.60	200.30	200.30	°C	0.2	
SOURCE	TYPE N	500.00	499.40	500.60	500.20	500.20	°C	0.2	
SOURCE	TYPE N	800.00	799.20	800.80	800.30	800.30	°C	0.2	
SOURCE	TYPE N	1100.00	1098.90	1101.10	1100.20	1100.20	°C	0.2	
SOURCE	TYPE N	1300.00	1298.70	1301.30	1300.20	1300.20	°C	0.2	
MEASURE	TYPE T	-200.0	-200.6	-199.4	-200.1	-200.1	°C	0.4	
MEASURE	TYPE T	0.0	-0.6	0.6	0.0	0.0	°C	0.4	
MEASURE	TYPE T	100.0	99.4	100.6	99.9	99.9	°C	0.4	
MEASURE	TYPE T	200.0	199.4	200.6	199.9	199.9	°C	0.4	
MEASURE	TYPE T	300.0	299.4	300.6	299.9	299.9	°C	0.4	
MEASURE	TYPE T	400.0	399.4	400.6	399.9	399.9	°C	0.4	
SOURCE	TYPE T	-200.00	-200.60	-199.40	-200.10	-200.10	°C	0.4	
SOURCE	TYPE T	0.00	-0.60	0.60	-0.10	-0.10	°C	0.4	
SOURCE	TYPE T	100.00	99.40	100.60	99.90	99.90	°C	0.4	
SOURCE	TYPE T	200.00	199.40	200.60	199.90	199.90	°C	0.4	
SOURCE	TYPE T	300.00	299.40	300.60	300.00	300.00	°C	0.4	
SOURCE	TYPE T	400.00	399.40	400.60	400.00	400.00	°C	0.4	
SOURCE	mADC LOWER	4.0000	3.9972	4.0028	4.0023	4.0023	maDC	0.01	
SOURCE	mADC LOWER	12.0000	11.9956	12.0044	12.0030	12.0030	maDC	0.018	
SOURCE	mADC LOWER	24.0000	23.9932	24.0068	24.0040	24.0040	maDC	0.018	



Illiana Instrumentation Service LLC
 1831 Govert Drive
 Schererville, IN 46375



Cert #: 11461 Rev. 1 Item # 1468 Certificate Date: 9/1/2023

Group	Description	Nominal	Lower Tol.	Upper Tol.	As Found	As Left	Units	Uncert.	OOT
SOURCE	mVDC LOWER	0.00000	-0.02000	0.02000	-0.00300	-0.00300	mVDC	0.0045	
SOURCE	mVDC LOWER	45.00000	44.97000	45.03000	44.99000	44.99000	mVDC	0.01	
SOURCE	mVDC LOWER	100.00000	99.96000	100.04000	99.98500	99.98500	mVDC	0.01	
SOURCE	VDC LOWER	0.000	-0.002	0.002	0.000000	0.000000	VDC	0.0000045	
SOURCE	VDC LOWER	5.000	4.997	5.003	4.999900	4.999900	VDC	0.00053	
SOURCE	VDC LOWER	10.000	9.996	10.004	9.999900	9.999900	VDC	0.0058	
SOURCE	OHMS LOWER	15.00	14.90	15.10	14.950	14.950	Ohm	0.0018	
SOURCE	OHMS LOWER	360.00	359.90	360.10	359.900	359.900	Ohm	0.016	
SOURCE	OHMS LOWER	500.00	499.50	500.50	499.900	499.900	Ohm	0.09	
SOURCE	OHMS LOWER	1500.00	1499.50	1500.50	1499.600	1499.600	Ohm	1.2	
SOURCE	OHMS LOWER	3200.00	3199.00	3201.00	3199.100	3199.100	Ohm	1.2	

Standards Used

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

Procedures Used

Name	Description
WI-523	CALIBRATION OF TEST CALIBRATORS