



# ILLIANA INSTRUMENTATION

3218B East 84<sup>th</sup> Place Merrillville, IN 46410 Phone (219)942-5588 Fax (219) 942-0366

## CERTIFICATE OF CALIBRATION

CUSTOMER:	MISCELLANEOUS DETAILS:
Illiana Instrumentation 3218B East 84 <sup>th</sup> Place Merrillville, IN 46410	Date Received 8/3/12 Certification Date: 8/3/12 Recalibration Date: 11/3/12 Cal. Number: 5313 P.O. Number: Location of Calibration: Lab Detailed Results Attached: YES Procedure Used: Fluke Procedure

EQUIPMENT CALIBRATED	
MANUFACTURER:	Fluke
MODEL:	53IIB
SERIAL NUMBER:	20560010
ITEM NUMBER:	1548
DESCRIPTION:	Thermometer
CONDITION AS FOUND:	In tolerance

STANDARDS USED/UNCERTAINTIES		
Item 1546 Fluke 525B		
BEST MEASUREMENT UNCERTAINTY: The expanded (k=2) measurement uncertainty for this test is .27 Deg F.		
These uncertainties apply when the temperature is between 64 and 82 Deg F.		
Intentional offset as left = none	Limitations/Restrictions = None	Initial Offset = varies by channel
Final Offset = none	Sensitivity 1 Deg F.	

TEST CONDITIONS	
TEMPERATURE	77 Deg F.
HUMIDITY	45% rH

CERTIFIED BY: Paul Grolla TITLE: ISA Certified Control Systems Tech DATE \_\_\_\_\_  
 APPROVED BY: Laura Grolla TITLE: Deputy Quality Manager DATE \_\_\_\_\_

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.

DETAILED CALIBRATION RESULTS

Calibration Performed For: STANDARDS

Customer Number: 999999

Contract Number: 1

\* \* \* EQUIPMENT IDENTIFICATION \* \* \*

Item Number: 1548 Name: 1548 Thermometer  
Manufacture: Fluke Model: 53IIB  
Serial Number: 20560010 Range:  
Location: Lab  
Department:  
Accuracy: +/- .6 or .1% rdg Deg C  
Date Entered: 07/25/12 Date Changed: 07/25/12 Days Between Cal: 181  
Last Cal.: 08/03/12 Next Cal. Due: 11/03/12  
Main Tech: RQ Back Up Tech:

\* \* \* GENERAL CALIBRATION DETAILS \* \* \*

Item Number: 1548 Calibration Date: 08/03/12  
Cal Number: 5313 Repair Number:  
General Notes:  
Problems (Y,N): N  
Approved (Y,N): Y Approved By: LG  
Problem Notes:

DETAILED CALIBRATION RESULTS

\* \* \* CALIBRATION POINT DETAILS \* \* \*

Item number: 1548 Calnumber: 5313 Caldate:08/03/12 Problems: N  
Stdused1: 1546 Fluke 525B  
Stdused2: NONE  
Stdused3: NONE  
Tech1: PDG Tech2: Tech3:  
Procedure: Fluke Procedure  
Eng. Unit: Meas. C K Calinput:

INITIAL VALUES		FINAL VALUES	
Cal. point	0.0000	Cal. point	0.0000
Upper toler.	0.6000	Upper toler.	0.6000
Init. reading	-0.1000	Final reading	-0.1000
Lower toler.	-0.6000	Lower toler.	-0.6000
Init. error	0.1000	Final error	0.1000
Init. ok	Y	Final ok	Y

Adjustment:  
Prob. note:

\* \* \* CALIBRATION POINT DETAILS \* \* \*

Item number: 1548 Calnumber: 5313 Caldate:08/03/12 Problems: N  
Stdused1: 1546 Fluke 525B  
Stdused2: NONE  
Stdused3: NONE  
Tech1: PDG Tech2: Tech3:  
Procedure: Fluke Procedure  
Eng. Unit: Meas. C K Calinput:

INITIAL VALUES		FINAL VALUES	
Cal. point	100.0000	Cal. point	100.0000
Upper toler.	100.6000	Upper toler.	100.6000
Init. reading	99.9000	Final reading	99.9000
Lower toler.	99.4000	Lower toler.	99.4000
Init. error	0.1000	Final error	0.1000
Init. ok	Y	Final ok	Y

Adjustment:  
Prob. note:

DETAILED CALIBRATION RESULTS

\* \* \* CALIBRATION POINT DETAILS \* \* \*

Item number: 1548 Calnumber: 5313 Caldate:08/03/12 Problems: N  
Stdused1: 1546 Fluke 525B  
Stdused2: NONE  
Stdused3: NONE  
Tech1: PDG Tech2: Tech3:  
Procedure: Fluke Procedure  
Eng. Unit: Meas. C K Calinput:

INITIAL VALUES		FINAL VALUES	
Cal. point	500.0000	Cal. point	500.0000
Upper toler.	500.6000	Upper toler.	500.6000
Init. reading	499.8000	Final reading	499.8000
Lower toler.	499.4000	Lower toler.	499.4000
Init. error	0.2000	Final error	0.2000
Init. ok	Y	Final ok	Y

Adjustment:  
Prob. note:

\* \* \* CALIBRATION POINT DETAILS \* \* \*

Item number: 1548 Calnumber: 5313 Caldate:08/03/12 Problems: N  
Stdused1: 1546 Fluke 525B  
Stdused2: NONE  
Stdused3: NONE  
Tech1: PDG Tech2: Tech3:  
Procedure: Fluke Procedure  
Eng. Unit: Meas. C K Calinput:

INITIAL VALUES		FINAL VALUES	
Cal. point	1000.0000	Cal. point	1000.0000
Upper toler.	1001.0000	Upper toler.	1001.0000
Init. reading	999.8000	Final reading	999.8000
Lower toler.	999.0000	Lower toler.	999.0000
Init. error	0.2000	Final error	0.2000
Init. ok	Y	Final ok	Y

Adjustment:  
Prob. note:

DETAILED CALIBRATION RESULTS

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Item number: 1548 Calnumber: 5313 Caldate:08/03/12 Problems: N  
Stdused1: 1546 Fluke 525B  
Stdused2: NONE  
Stdused3: NONE  
Tech1: PDG Tech2: Tech3:  
Procedure: Fluke Procedure  
Eng. Unit: Meas. C K Calinput:

INITIAL VALUES		FINAL VALUES	
Cal. point	1500.0000	Cal. point	1500.0000
Upper toler.	1501.5000	Upper toler.	1501.5000
Init. reading	1500.0000	Final reading	1500.0000
Lower toler.	1498.5000	Lower toler.	1498.5000
Init. error	0.0000	Final error	0.0000
Init. ok	Y	Final ok	Y

Adjustment:  
Prob. note:

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Tech1: PDG Tech2: Tech3:  
Procedure: Fluke Procedure  
Eng. Unit: Meas. C K Calinput:

INITIAL VALUES		FINAL VALUES	
Cal. point	2000.0000	Cal. point	2000.0000
Upper toler.	2002.0000	Upper toler.	2002.0000
Init. reading	2000.0000	Final reading	2000.0000
Lower toler.	1998.0000	Lower toler.	1998.0000
Init. error	0.0000	Final error	0.0000
Init. ok	Y	Final ok	Y

Adjustment:  
Prob. note:

DETAILED CALIBRATION RESULTS

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Stdused2: NONE  
Stdused3: NONE  
Tech1: PDG Tech2: Tech3:  
Procedure: Fluke Procedure  
Eng. Unit: Source C N Calinput:

INITIAL VALUES		FINAL VALUES	
Cal. point	0.0000	Cal. point	0.0000
Upper toler.	0.6000	Upper toler.	0.6000
Init. reading	-0.5000	Final reading	-0.5000
Lower toler.	-0.6000	Lower toler.	-0.6000
Init. error	0.5000	Final error	0.5000
Init. ok	Y	Final ok	Y

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Procedure: Fluke Procedure  
Eng. Unit: Source C N Calinput:

INITIAL VALUES		FINAL VALUES	
Cal. point	100.0000	Cal. point	100.0000
Upper toler.	100.6000	Upper toler.	100.6000
Init. reading	99.6000	Final reading	99.6000
Lower toler.	99.4000	Lower toler.	99.4000
Init. error	0.4000	Final error	0.4000
Init. ok	Y	Final ok	Y

Adjustment:  
Prob. note:

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Init. reading	499.5000	Final reading	499.5000
Lower toler.	499.4000	Lower toler.	499.4000
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INITIAL VALUES		FINAL VALUES	
Cal. point	2000.0000	Cal. point	2000.0000
Upper toler.	2002.0000	Upper toler.	2002.0000
Init. reading	2000.0000	Final reading	2000.0000
Lower toler.	1998.0000	Lower toler.	1998.0000
Init. error	0.0000	Final error	0.0000
Init. ok	Y	Final ok	Y

Adjustment:  
Prob. note: