



SOUTHWEST RESEARCH INSTITUTE®

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Institute Quality Systems
Institute Calibration Laboratory
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Calibration Laboratory
Certificate #0972-01

Certificate of Calibration

Cost Center: DIV20

Mail Stop: B51

Customer: DON BANNON

Manufacturer/Model: FLUKE / 2625A

Description: HYDRA DATA LOGGER

Serial Number: 5832650

Asset Number: 005129

Procedure: FLUKE 2620A, 2625A & 2635A - 14 APR 06

Work Order: 303087548

Date Issued: 14-May-2009

Date Calibrated: 14-May-2009

*** Date Due :** 14-Nov-2009

**** Results:** FOUND-LEFT

Temperature: 74°F

Humidity: 40 %

This certificate documents traceability to the National Institute of Standards and Technology (NIST) and the International System of Units (SI). The Laboratory quality system conforms to ISO/IEC 17025, 2005, ANSI/NCSL Z540-1-1994 and relevant requirements of the ISO 9000-2000 standard. This certificate shall not be reproduced, except in full, without the written approval of the Southwest Research Institute Calibration Laboratory. This certificate shall not be used to claim product endorsement by Southwest Research Institute, American Association for Laboratory Accreditation (A2LA) or any agency of the U. S. Government. Results of this calibration relate only to the instrument described above at the time of calibration and does not imply any long term stability of the instrument.

*Determined by the customer, does not imply the instrument will remain within tolerance as any number of factors may cause an out-of-tolerance condition before this date. **Data type found in this certificate or attached measurement report must be interpreted as: Found-left - adjustment and/or repair was not performed, As-found - data is before unit is adjusted and/or repaired, As-left - data is after adjusted and/or repaired was performed. The customer has sole responsibility for determination of in-/out-of-tolerance or compliance/noncompliance.

Measurement uncertainty calculated in accordance with the method described in the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM), for a confidence level of approximately 95 percent using a coverage factor of $k=2$.


Remarks:

Standards Used

<u>Asset #</u>	<u>Manufacturer</u>	<u>Model</u>	<u>Description</u>	<u>Cal Date</u>	<u>Due Date</u>
004164	FLUKE	5500A/SC	CALIBRATOR	16-Sep-2008	16-Sep-2009


Walt Hill

Laboratory Manager


Bob Trollinger
Metrology Technician

Southwest Research Institute
Calibration Laboratory
Measurement Report

Work Order:	303087548	Mfr:	Fluke	Technician:	blt
Asset No:	005129	Model:	2625A	Cal Date:	14-May-09
Serial No:	5832650	Type:	Data Logger		
Remarks:					

Function/Range	Test Point	TI Reading	Difference	+/- Limit	+/- Uncertainty	Found/Left
DCV	mV	mV	mV	mV	mV	Result
300 mV	0.00	-0.01	-0.01	0.02	0.012	Pass
	150.00	149.99	-0.01	0.07	0.018	Pass
	290.00	289.99	-0.01	0.11	0.026	Pass
	V	V	V	V	V	
3 V	2.9000	2.8999	-0.0001	0.0012	0.00018	Pass
	-2.9000	-2.9002	-0.0002	0.0012	0.00018	Pass
30 V	29.000	28.998	-0.002	0.010	0.0021	Pass
300 V	150.00	149.99	-0.01	0.06	0.015	Pass
300 V	290.00	289.98	-0.02	0.10	0.022	Pass
AC V	mV	mV	mV	mV	mV	
300 mV 1 kHz	20.00	19.97	-0.03	0.28	0.059	Pass
100 kHz	20.00	20.14	0.14	1.50	0.12	Pass
1 kHz	290.00	289.94	-0.06	0.74	0.13	Pass
100 kHz	300.00	308.05	8.05	15.50	1.0	Pass
	V	V	V	V	V	
3 V 1 kHz	2.9000	2.8998	-0.0002	0.0066	0.00108	Pass
30 V 1 kHz	29.000	28.997	-0.003	0.069	0.014	Pass
300 V 1 kHz	150.000	149.960	-0.040	0.460	0.14	Pass
300 V 1 kHz	290.00	289.96	-0.04	0.66	0.27	Pass
Ohms	Ω	Ω	Ω	Ω	Ω	
300 Ω	0.00	0.05	0.05	0.09	0.012	Pass
	190.00	190.06	0.06	0.20	0.039	Pass
	k Ω	k Ω	k Ω	k Ω	k Ω	
	0.0000	0.0000	0.0000	0.0003	0.012	Pass
3 k Ω	1.9000	1.9000	0.0000	0.0014	0.00029	Pass
30 k Ω	19.0000	19.001	0.001	0.013	0.0029	Pass
300 k Ω	190.000	190.02	0.02	0.13	0.035	Pass
	M Ω	M Ω	M Ω	M Ω	M Ω	
3 M Ω	1.9000	1.9006	0.0006	0.0014	0.00041	Pass
Frequency	kHz	kHz	kHz	kHz	kHz	
90 kHz 2 V	10.000	10.000	0.000	0.006	0.0018	Pass

Temperature is tested with the input module
Set up 4 wire using CH 11 and CH 1 Monitor on CH 1

RTD	$^{\circ}\text{C}$	$^{\circ}\text{C}$	$^{\circ}\text{C}$	$^{\circ}\text{C}$	$^{\circ}\text{C}$	
100 Ω	0.00	-0.20	-0.20	0.24	0.13	Pass
200 Ω	266.34	266.23	-0.11	0.48	0.13	Pass
300 Ω	557.70	557.80	0.10	0.75	0.18	Pass

END OF REPORT