



Company

Research Company  
Address  
City, State, 12345, USA

Certificate Number: 0999200      Ambient Temperature(°C): Min: 20.8    Max: 24.2  
Model Number: VL-1016-22V      Ambient Humidity(%RH): Min: 27.3    Max: 52.9  
Serial Number: 09991999      Method: Calibration by comparison  
Procedures: VCP1005

The calibration(s) on this report are traceable to the United States of America National Institute of Standards and Technology or to other recognized national or international standards or to accepted values of natural physical constants, and are accredited to ISO/IEC 17025. The laboratory meets the requirements of ANSI/NCSL Z540-1. Using methods detailed in the ISO "Guide to the Expression of Uncertainty in Measurement", reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k=2. The calibrations were performed equivalently either with minimum test uncertainty ratios of 4:1 using a coverage factor of k = 2, or with the statistical method of guard banding to reduce test limits. The results relate only to the item(s) calibrated.

CALIBRATION REFERENCE EQUIPMENT

	<u>Serial #</u>	<u>Calibration Date</u>	
		<u>Last</u>	<u>Next</u>
Hart Scientific Black Stack SPRT Scanner Module Model 2560	A6B974	29-Dec-10	29-Dec-11
Hart Scientific Secondary Standard PRT Probe Model 5626	2869	24-Aug-10	24-Aug-11

CALIBRATION TEST RESULTS

<u>Chan</u>	<u>Test Description</u>	<u>Units</u>	<u>Reference</u>	<u>1 Year Spec.</u>	<u>Measurement Uncertainty</u>	<u>As Found</u>			<u>As Left</u>		
						<u>Result</u>	<u>Diff.</u>		<u>Result</u>	<u>Diff.</u>	
1	Temperature	°C	-90.04	0.35	0.02	-90.09	0.05	P	-90.04	0.00	P
1	Temperature	°C	-54.99	0.35	0.05	-55.13	0.14	P	-54.99	0.00	P
1	Temperature	°C	-19.97	0.35	0.05	-19.95	0.02	P	-19.97	0.00	P
1	Temperature	°C	15.05	0.35	0.02	14.88	0.17	P	15.05	0.00	P
1	Temperature	°C	49.99	0.35	0.02	49.97	0.02	P	49.98	0.01	P
2	Temperature	°C	-90.04	0.35	0.02	-90.11	0.07	P	-90.01	0.03	P
2	Temperature	°C	-54.99	0.35	0.05	-55.06	0.07	P	-54.97	0.02	P
2	Temperature	°C	-19.97	0.35	0.05	-20.04	0.07	P	-19.94	0.03	P
2	Temperature	°C	15.05	0.35	0.02	14.89	0.16	P	15.00	0.05	P
2	Temperature	°C	49.99	0.35	0.02	49.91	0.08	P	50.04	0.05	P

*P indicates Pass, F indicates Fail, O indicates overlaps guard band, U indicates tolerance unspecified*

Maintaining Calibration

The electronic components in this data logger are of the highest quality. The unit has been designed to remain within its specifications. The length of in-calibration service can be affected by aging, temperature and shock. For those users with critical needs such as accreditation demands, government specifications, or ISO requirements, we recommend that the unit be calibrated on a periodic basis.

Calibration

Information on calibration services is available at the address below. This data logger was calibrated by:

Vaisala Canada Inc.  
100-13775 Commerce Pkwy.  
Richmond, BC Canada V6V 2V4  
Tel: 604-273-6850 Fax: 604-273-2874  
sales@veriteq.com www.vaisala.com

Calibration Technician: Wlad Nefedow

Calibration Date: 13-Jan-2011

Next Calibration: 13-Jan-2012

Quality Manager: Michael Boetzkes

Company

Research Company  
Address  
City, State, 12345, USA

Certificate Number: 0999000      Ambient Temperature(°C): Min: 21.3    Max: 27.2  
Model Number: VL-2000-20R      Ambient Humidity(%RH): Min: 23.8    Max: 49.8  
Serial Number: 09992000      Method: Calibration by comparison  
Procedures: VCP1009 VCP1010

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CALIBRATION REFERENCE EQUIPMENT

	<u>Serial #</u>	<u>Calibration Date</u>	
		<u>Last</u>	<u>Next</u>
Thunder Scientific Humidity Generator 2500 ST-LT	0305391	26-May-10	26-May-11
Hart Scientific Thermistor Temperature Probe Model 5610	A540604	11-Jun-10	11-Jun-11
Hart Scientific Black Stack Thermistor Scanner Module Model 2564	A98477	20-Aug-10	20-Aug-11

CALIBRATION TEST RESULTS

<u>Chan</u>	<u>Test Description</u>	<u>Units</u>	<u>Reference</u>	<u>1 Year Spec.</u>	<u>Measurement Uncertainty</u>	<u>As Found</u>			<u>As Left</u>		
						<u>Result</u>	<u>Diff.</u>		<u>Result</u>	<u>Diff.</u>	
1	Temperature	°C	-24.99	0.25	0.05	-25.02	0.03	P	-24.98	0.01	P
1	Temperature	°C	10.05	0.25	0.05	10.04	0.01	P	10.05	0.00	P
1	Temperature	°C	25.09	0.15	0.03	25.09	0.00	P	25.09	0.00	P
1	Temperature	°C	30.11	0.25	0.06	30.11	0.00	P	30.11	0.00	P
1	Temperature	°C	40.15	0.25	0.06	40.16	0.01	P	40.15	0.00	P
1	Temperature	°C	45.09	0.25	0.06	45.09	0.00	P	45.08	0.01	P
1	Temperature	°C	70.04	0.25	0.06	70.08	0.04	P	70.04	0.00	P
2	Relative Humidity at 10°C	%RH	45.00	3.00	0.60	44.83	0.17	P	45.48	0.48	P
2	Relative Humidity at 25°C	%RH	11.00	2.00	0.60	10.96	0.04	P	11.38	0.38	P
2	Relative Humidity at 25°C	%RH	45.00	2.00	0.60	44.79	0.21	P	45.47	0.47	P
2	Relative Humidity at 25°C	%RH	60.00	2.00	0.60	60.07	0.07	P	60.61	0.61	P
2	Relative Humidity at 25°C	%RH	80.00	2.00	0.60	79.97	0.03	P	80.35	0.35	P
2	Relative Humidity at 30°C	%RH	65.00	3.00	0.60	65.14	0.14	P	65.53	0.53	P
2	Relative Humidity at 40°C	%RH	75.00	3.00	0.60	74.54	0.46	P	74.58	0.42	P
2	Relative Humidity at 45°C	%RH	45.00	3.00	0.60	45.26	0.26	P	45.61	0.61	P

*P indicates Pass, F indicates Fail, O indicates overlaps guard band, U indicates tolerance unspecified*

Maintaining Calibration

The electronic components in this data logger are of the highest quality. The unit has been designed to remain within its specifications. The length of in-calibration service can be affected by aging, temperature and shock. For those users with critical needs such as accreditation demands, government specifications, or ISO requirements, we recommend that the unit be calibrated on a periodic basis.

Calibration

Information on calibration services is available at the address below. This data logger was calibrated by:

Vaisala Canada Inc.  
100-13775 Commerce Pkwy.  
Richmond, BC Canada V6V 2V4  
Toll Free: 1-800-683-8374, Phone: 604-273-6850, Fax: 604-273-2874  
Email: sales@veriteq.com, Website: www.vaisala.com

Calibration Technician: Wlad Nefedow

Calibration Date: 23-Jan-2011

Next Calibration: 23-Jan-2012

Quality Manager: Michael Boetzkes

Certificate #      Model #                      Serial #                      Company  
0160420              VL-4000-20C                      19994999                      Research Company

This laboratory maintains A2LA accreditation for the specific calibrations listed in A2LA Certificate 2069.01. The calibration results included in this calibration, however, are not covered by this accreditation. This laboratory meets the requirements of ANSI/NCSL Z540-1-1994. The calibrations on this report are traceable to the United States of America National Institute of Standards and Technology or to other recognized national or international standards or to accepted values of natural physical constants. Compliance to specifications is controlled equivalently either through a 95% confidence level and a 4:1 test uncertainty ratio, or through the use of guard bands to tighten test limits.

### PRODUCT SPECIFICATIONS

<u>Chan</u>	<u>Input Type</u>	<u>Rated Accuracy</u>
1	Current Loop	±0.03mA over 0mA to 20mA
2	Current Loop	±0.03mA over 0mA to 20mA

### CALIBRATION REFERENCE EQUIPMENT

	<u>Serial #</u>	<u>Calibration Date</u>	
		<u>Last</u>	<u>Next</u>
Agilent 34401A 6.5 Digit Multimeter	MY41050660	30-Aug-10	30-Aug-11

<u>Procedure:</u>	VCP1011	<u>Ambient Temperature(°C)</u>	<u>Ambient Humidity(%RH)</u>
<u>Method:</u>	Calibration by comparison	Min: 21.1    Max: 23.9	Min: 32.2    Max: 43.9

### CALIBRATION TEST RESULTS

<u>Test</u>	<u>Chan</u>	<u>Test Description</u>	<u>Units</u>	<u>Reference</u>	<u>As Found</u>		<u>As Left</u>	
					<u>Result</u>	<u>Diff.</u>	<u>Result</u>	<u>Diff.</u>
1	1	Current	mA	4.001	NA	NA	4.002	0.001
2	1	Current	mA	10.001	NA	NA	10.003	0.002
3	1	Current	mA	19.900	NA	NA	19.902	0.002
4	2	Current	mA	4.001	NA	NA	4.003	0.002
5	2	Current	mA	10.001	NA	NA	10.004	0.003
6	2	Current	mA	19.900	NA	NA	19.902	0.002

### Maintaining Calibration

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### Factory Calibration

For factory calibration of this data logger, or for other testing or calibration services, contact the seller of this product.

Vaisala Canada Inc.  
100-13755 Commerce Pkwy.  
Richmond, BC Canada V6V 2V4  
Toll Free: 1-800-683-8374, Phone: 604-273-6850, Fax: 604-273-2874  
Email: sales@veriteq.com, Website: www.vaisala.com

Issued By:      Wlad Nefedow                      \_\_\_\_\_                      Calibration Date:    13-Jan-2011  
Approved By:    Michael Boetzkes                      \_\_\_\_\_                      Next Calibration:    13-Jan-2012