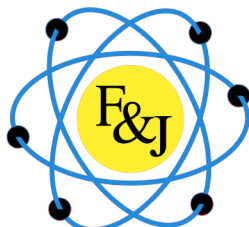
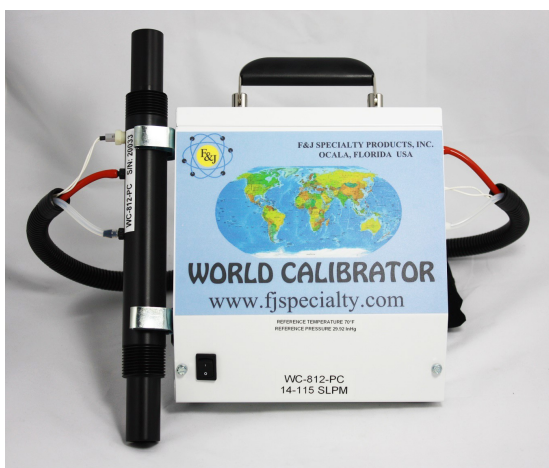


**F&J SPECIALTY PRODUCTS, INC.**  
*The Nucleus of Quality Air Monitoring Programs*



**WORLD CALIBRATOR**  
**PC INTERFACEABLE**



**Displayless VERSION**



**VFD-VERSION**



2 Year Warranty ✓

Tel: 352.680.1177  
Fax: 352.680.1454  
Email: [www.fjspecialty.com](http://www.fjspecialty.com)  
Web: [www.fjspecialty.com](http://www.fjspecialty.com)



Rev: 14 June 2018

## WORLD CALIBRATOR Displayless Version



### Notable Features:

- PC Interface program:
  - Western or Asian Languages
- Operator Selectable Options
  - Multiple language options; European or Asian Version
  - Multi gas option
  - Volumetric or mass flow
  - At Reading or Full Scale Accuracy Calibration Type
  - Reference T and Reference P
  - Engineering units for all reported parameters
- Semi-Automatic calibration-verification when used with F&J digital air samplers
- Customizable calibration report
- Accuracy:  $\pm 1.0\%$  Full Scale (F.S.)
- Two Year Warranty
- Complementary Storage Case

## WORLD CALIBRATOR Vacuum Fluorescent Display (VFD) Version



### Notable Features:

- Vacuum Fluorescent Display:
  - (4 lines $\times$ 24 characters)
- 4 button key pad for stand alone operation
- Mass flow or Volumetric flow
- Volume Totalization Feature
- Operator selectable Reference T and P
- Operator selectable engineering units
- Multi gas option
- $\pm 1.0\%$  Full Scale (F.S.) Accuracy
- User customizable calibration report
- Semi-Automatic calibration-verification when used with F&J digital air samplers
- PC Interface program:
  - Western or Asian languages
- Two Year Warranty
- Complimentary Storage Case

# Common Features and Specifications

## MEASUREMENT PRINCIPLE

Flow Sensor: Differential Pressure Sensor  
 Standardization: Operator selectable values for reference temperature and pressure  
 Flow Curve linearization: Individually calibrated and software corrected

## MEASUREMENT RANGES

Air flow: Various flow ranges available  
 Temperature: -40° - 122° F (-40° - 50° C)  
 Barometric pressure: 30 - 22 In-Hg (760 - 559 mm-Hg); (101.325-74.5 kPa)  
 approx. Sea level to 5900 ft. (1800 m) elevation above sea level  
 Optional low range to 10 In-Hg (254 mg) (33.86 kPa)

## MEASUREMENT ACCURACY

Air flow: ± 1.0% of full scale  
 Temperature (Typical): ± 1°C over range -20°C to 50°C  
 Barometric pressure: ± 1% of reading over measurement range of 22.00-30.00 “Hg

## STANDARD TEMPERATURE and PRESSURE CHOICES:

Temperature 32°F (0°C) 59°F (15.0°C) 68°F (20.0°C) 70°F (21.1°C) 77°F (25.0°C)  
 Pressure 29.92”Hg (1 atm, 760mm Hg, 1.013 bar, 101.325 kPa)  
 1 bar, (100kPa, 750mm Hg, 0.987 atm 29.53”Hg)

## PARAMETERS and RESOLUTIONS DISPLAYED on the PC SCREEN

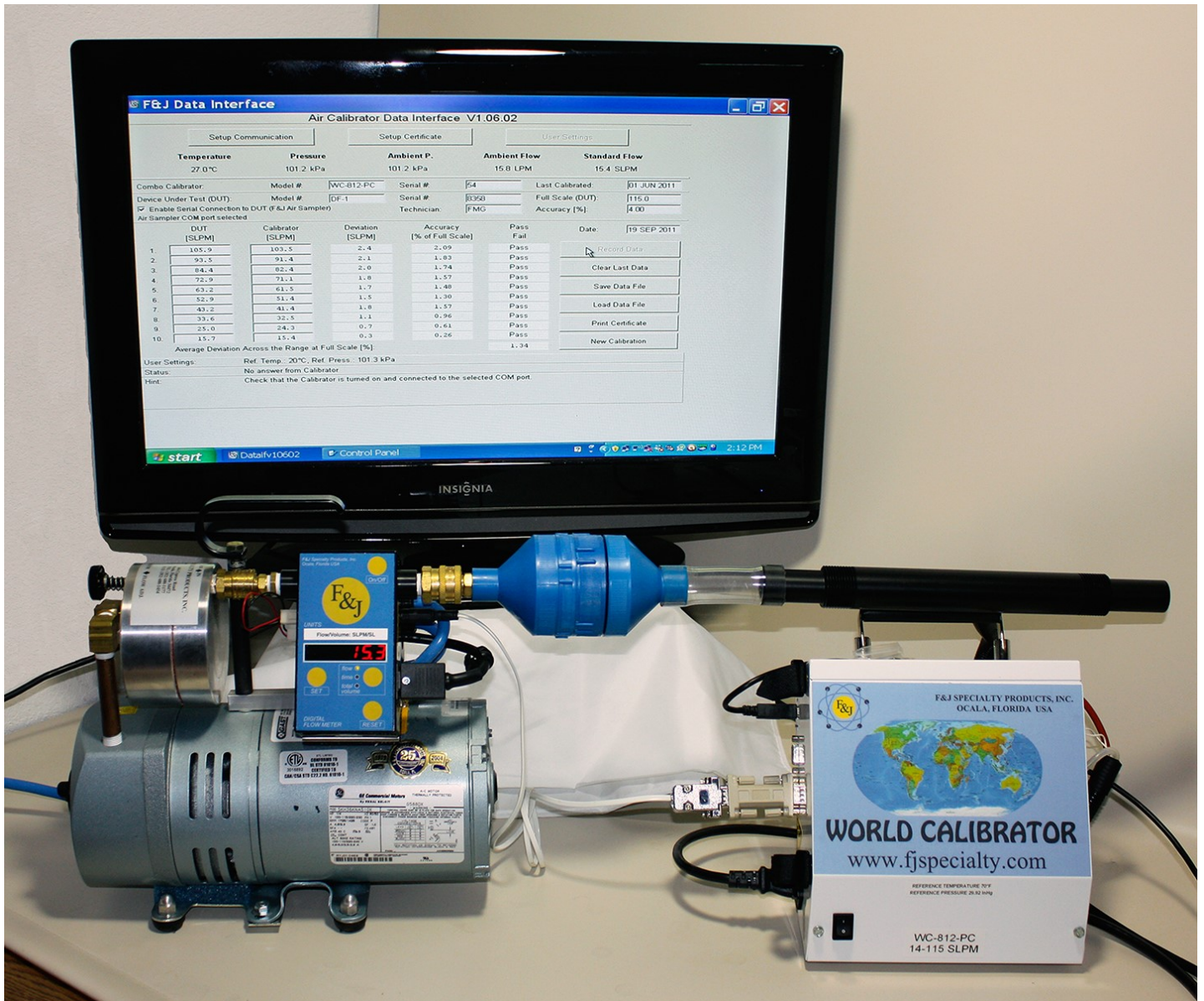
	Parameter	Engineering Unit	Resolution	
<b>Flow Options:</b>	CFM	Cubic feet per minute	0.01	CFM
	LPM	Liter per minute	.1	LPM
	m <sup>3</sup> /min	Cubic meter per minute	0.0001	m <sup>3</sup> /min
	m <sup>3</sup> /hr	Cubic meters per hour	0.001	m <sup>3</sup> /hr
	cc/min	Cubic centimeter per minute	1	cc/min
<b>Temperature:</b>	F	Degree Fahrenheit	0.1	Degree F
	C	Degree Celsius	0.1	Degree C
	In-Hg	Inches of Mercury	0.01	In-Hg
<b>Pressure:</b>	mm-Hg	Millimeters of Mercury	0.1	mm-Hg
	kPa	Kilo pascals	0.1	kPa
	atm	atmospheres	0.001	atm
	bar	bar	0.001	bar

## GENERAL SPECIFICATIONS

Power requirements:	Max 0.6A; 100–120 VAC;50/60Hz	Max 0.3A; 220–240 VAC;50/60Hz
Operating temperature:	-4°F to 122°F	-20°C to 50° C
Storage temperature:	-20°F to 158°F	-29°C to 70° C
Dimension (L×W×H)	8.625”×3.75”×8.375”	219×95.25×213mm
Weight:	8 lbs. 6 oz.	3.8 Kgs.
Installation Category:	Pollution Degree 2	
Enclosure Rating:	IPXO	
Communications Ports:	Dual RS232, one Mini-USB Connector, two DB-9	
PO OS:	Windows 98, Windows XP, Vista, Windows 7 and Windows 10 operating systems	



## World Calibrator, PC and DF-1 Setup



The World Calibrator PC Press program enables a user to perform the following functions:

1. Customize the calibrator measurement parameters to match the output parameters of the Device Under Test (DUT)
2. Perform a semi-automatic calibration with any F&J digital instrument
3. Print a calibration form; either Full Scale (F.S.) or at Reading accuracy
4. Archive the calibration data file electronically to reprint certificate or review calibration data
5. Enables operator to perform calibration-verifications on analog instruments as well as digital instruments

# WORLD CALIBRATOR

## Displayless Version

### Typical Flow Range

#### STANDARD FLOW MODELS

<b>100-120 VAC</b>		<b>220-240 VAC</b>	
<b>Model</b>	<b>CFM (SLPM)</b>	<b>Model</b>	<b>CFM (SLPM)</b>
WC-801-PC	.1 to 1 (3 - 30)	WC-801E-PC	.1 to 1 (3 - 30)
WC-802-PC	0.2 to 2.1 (6 - 60)	WC-802E-PC	0.2 to 2.1 (6 - 60)
WC-812-PC	.5 to 4.0 (15 - 115)	WC-812E-PC	.5 to 4.0 (15 - 115)
WC-828-PC	1 to 10.6 (30 - 300)	WC-828E-PC	1 to 10.6 (30 - 300)
WC-814-PC	1.4 to 14 (40 - 420)	WC-814E-PC	1.4 to 14 (40 - 420)
WC-530-PC	5.3 to 30 (150 - 850)	WC-530E-PC	5.3 to 30 (150 - 850)
WC-1000-PC	4 to 35 (115 - 1000)	WC-1000E-PC	4 to 35 (115 - 1000)
WC-550-PC	5.3 to 50 (150 - 1400)	WC-550E-PC	5.3 to 50 (150 - 1400)
WC-870-PC	8.5 to 70 (240 - 2000)	WC-870E-PC	8.5 to 70 (240 - 2000)

#### HIGH FLOW MODELS

<b>100-120 VAC</b>		<b>220-240 VAC</b>	
<b>Model</b>	<b>CFM (m<sup>3</sup>/hr)</b>	<b>Model</b>	<b>CFM (m<sup>3</sup>/hr)</b>
WC-890-PC	15 to 90 (26 - 153)	WC-890E-PC	15 to 90 (26 - 153)
WC-125-PC	30 to 125 (51 - 212)	WC-125E-PC	30 to 125 (51 - 212)
WC-150-PC	40 to 150 (68 - 255)	WC-150E-PC	40 to 150 (68 - 255)
WC-200-PC	50 to 200 (85 - 340)	WC-200E-PC	50 to 200 (85 - 340)
WC-300-PC	60 to 300 (102 - 510)	WC-300E-PC	60 to 300 (102 - 510)
WC-400-PC	60 to 400 (102 - 680)	WC-400E-PC	60 to 400 (102 - 680)
WC-600-PC	100 to 600 (170 - 1020)	WC-600E-PC	100 to 600 (170 - 1020)

#### BATTERY MODEL PART NUMBERS \*

<b>100-120 VAC</b>		<b>220-240 VAC</b>	
WC-801B-PC	WC-890B-PC	WC-801BE-PC	WC-890BE-PC
WC-802B-PC	WC-125B-PC	WC-802BE-PC	WC-125BE-PC
WC-812B-PC	WC-150B-PC	WC-812BE-PC	WC-150BE-PC
WC-828B-PC	WC-200B-PC	WC-828BE-PC	WC-200BE-PC
WC-814B-PC	WC-300B-PC	WC-814BE-PC	WC-300BE-PC
WC-530B-PC	WC-400B-PC	WC-530BE-PC	WC-400BE-PC
WC-550B-PC	WC-600B-PC	WC-550BE-PC	WC-600BE-PC
WC-870B-PC		WC-870BE-PC	

\* Battery models do not bear the CE mark or UL/CSA approvals

**Note:** F&J Multi-Sensor World Calibrator models are only manufactured in the Vacuum

# WORLD CALIBRATOR

## VFD Version

### Typical Flow Range

#### STANDARD FLOW MODELS

<b>100-120 VAC</b>		<b>220-240 VAC</b>	
<b>Model</b>	<b>CFM (SLPM)</b>	<b>Model</b>	<b>CFM (SLPM)</b>
WC-801-VFD	.1 to 1 (3 - 30)	WC-801E-VFD	.1 to 1 (3 - 30)
WC-802-VFD	0.2 to 2.1 (6 - 60)	WC-802E-VFD	0.2 to 2.1 (6 - 60)
WC-812-VFD	.5 to 4.0 (15 - 115)	WC-812E-VFD	.5 to 4.0 (15 - 115)
WC-828-VFD	1 to 10.6 (30 - 300)	WC-828E-VFD	1 to 10.6 (30 - 300)
WC-814-VFD	1.4 to 14 (40 - 420)	WC-814E-VFD	1.4 to 14 (40 - 420)
WC-530-VFD	5.3 to 30 (150 - 850)	WC-530E-VFD	5.3 to 30 (150 - 850)
WC-1000-VFD	4 to 35 (115 - 1000)	WC-1000E-VFD	4 to 35 (115 - 1000)
WC-550-VFD	5.3 to 50 (150 - 1400)	WC-550E-VFD	5.3 to 50 (150 - 1400)
WC-870-VFD	8.5 to 70 (240 - 2000)	WC-870E-VFD	8.5 to 70 (240 - 2000)

#### HIGH FLOW MODELS

<b>100-120 VAC</b>		<b>220-240 VAC</b>	
<b>Model</b>	<b>CFM (m<sup>3</sup>/hr)</b>	<b>Model</b>	<b>CFM (m<sup>3</sup>/hr)</b>
WC-890-VFD	15 to 90 (26 - 153)	WC-890E-VFD	15 to 90 (26 - 153)
WC-125-VFD	30 to 125 (51 - 212)	WC-125E-VFD	30 to 125 (51 - 212)
WC-150-VFD	40 to 150 (68 - 255)	WC-150E-VFD	40 to 150 (68 - 255)
WC-200-VFD	50 to 200 (85 - 340)	WC-200E-VFD	50 to 200 (85 - 340)
WC-300-VFD	60 to 300 (102 - 510)	WC-300E-VFD	60 to 300 (102 - 510)
WC-400-VFD	60 to 400 (102 - 680)	WC-400E-VFD	60 to 400 (102 - 680)
WC-600-VFD	100 to 600 (170 - 1020)	WC-600E-VFD	100 to 600 (170 - 1020)

#### BATTERY MODEL PART NUMBERS \*

<b>100-120 VAC</b>		<b>220-240 VAC</b>	
WC-801B-VFD	WC-890B-VFD	WC-801BE-VFD	WC-890BE-VFD
WC-802B-VFD	WC-125B-VFD	WC-802BE-VFD	WC-125BE-VFD
WC-812B-VFD	WC-150B-VFD	WC-812BE-VFD	WC-150BE-VFD
WC-828B-VFD	WC-200B-VFD	WC-828BE-VFD	WC-200BE-VFD
WC-814B-VFD	WC-300B-VFD	WC-814BE-VFD	WC-300BE-VFD
WC-530B-VFD	WC-400B-VFD	WC-530BE-VFD	WC-400BE-VFD
WC-550B-VFD	WC-600B-VFD	WC-550BE-VFD	WC-600BE-VFD
WC-870B-VFD		WC-870BE-VFD	

\* Battery models do not bear the CE mark or UL/CSA approvals

# USER SETTINGS SCREEN

**User Settings**

Language:  English,  Nederlands,  Français,  Deutsch,  Español,  Русский,  Български

Flow Type:  Volumetric,  Mass

Accuracy Type:  Full Scale,  At Reading

Temperature:  °C,  °F

Pressure:  atm,  InHg,  mmHg,  bar,  kPa,  mbar,  hPa

Flow:  CFM,  LPM,  cc/min,  m³/hr,  m³/min

Mass Flow:  g/min,  lbs/hr,  kg/hr

Tube:  Tube #1,  Tube #2,  Tube #3

Reference Temp.:  32°F, 0°C,  59°F, 15°C,  68°F, 20°C,  70°F, 21°C,  77°F, 25°C

Reference Press.:  1 atm, 29.92 InHg, 760 mmHg, 1.013 bar, 101.3 kPa,  0.987 atm, 29.53 InHg, 750 mmHg, 1 bar, 100 kPa

Gas:  Air,  Hydrogen,  Nitrogen,  Oxygen,  CO2,  CO,  Helium,  Ammonia,  Propane,  Argon

Utilize ENTER and ESC keys

(c) 2010-2017 F&J Specialty Products, Inc.  
404 Cypress Road, Ocala, FL 34472, USA Tel: +1 352 680-1177 Fax: +1 352 680-1454 www.fjspecialty.com

# DATA INTERFACE SCREEN

**F&J Data Interface** Air Calibrator Data Interface V1.07.03

Setup Communication | Setup Certificate | User Settings

Temperature: 76.9°F | Sensor Pressure: 29.75 InHg | Barometric Pressure: 29.75 InHg | Ambient Flow: 0.00 CFM | Standard Flow: 0.00 SCFM

World Calibrator: Model # [Test] Serial #: 20057 Last Calibrated: 20 FEB 2017

Device Under Test (DUT): Model # [Test] Serial #: 7784 Full Scale (DUT): 4.00

Enable Serial Connection to DUT (F&J Air Sampler) Technician: KL Accuracy [%]: 2.50

Data from Air Sampler is OK

	DUT [SCFM]	Calibrator [SCFM]	Deviation [SCFM]	Accuracy [% of Full Scale]	Pass Fail	Date: 01 JUN 2017
1.	4.01	3.99	0.02	0.50	Pass	Record Data Clear Last Data Save Data File Load Data File Print Certificate New Calibration
2.	3.70	3.71	-0.01	-0.25	Pass	
3.	3.23	3.25	-0.02	-0.50	Pass	
4.	2.87	2.91	-0.04	-1.00	Pass	
5.	2.43	2.46	-0.03	-0.75	Pass	
6.	2.00	1.98	0.02	0.50	Pass	
7.	1.68	1.66	0.02	0.50	Pass	
8.	1.24	1.27	-0.03	-0.75	Pass	
9.	0.83	0.81	0.02	0.50	Pass	
10.	0.41	0.39	0.02	0.50	Pass	

Average Deviation Across the Range at Full Scale [%]: 0.58

User Settings: Volumetric, Accuracy Type: Full Scale, Ref. Temp.: 32°F, Ref. Press.: 29.92 InHg, Gas: Argon, Tube #2 (814)

Status: Data from Calibrator is OK

Hint: Click Record Data and Clear Last Data to manage data lines. Click Print Certificate to generate a certificate using the recorded data table. Click New Calibration to delete all data and start a new test. While there are recorded data lines, User Settings is unavailable.



# At Reading Accuracy Calibration Certificate

## CERTIFICATE OF CALIBRATION

F&J SPECIALTY PRODUCTS, INC.  
 404 Cypress Road  
 Ocala, FL 34472  
 USA  
 Tel: +1 352 680-1177 Fax: +1 352 680-1454  
 Email: fandj@fjspecialty.com www.fjspecialty.com  
 THE NUCLEUS OF QUALITY AIR MONITORING PROGRAMS

MODEL #:                      Test    SERIAL #:                      1027

REFERENCE INSTRUMENT:      Test                                      CALIBRATION DATE:              31 MAY 2017  
 REFERENCE SERIAL #:        56                                      RECALIBRATION DATE:        31 MAY 2018  
 REFERENCE CALIBRATED:    15 JUL 2011

FLOW TYPE:                      Volumetric                      ACCURACY TYPE:              At **At Reading**  
 REFERENCE TEMPERATURE:   32°F                              REFERENCE PRESSURE:        760 mmHg  
 GAS:                                Argon

INSTRUMENT FULL SCALE:    30 [SCFM]  
 INSTRUMENT ACCURACY AT READING:                                ± 1.5 [%]

	DEVICE UNDER TEST	REFERENCE INSTRUMENT	DEVIATION AT READING	<b>ACCURACY AS % At Reading [%]</b>	PASS OR FAIL
	FLOW [SCFM]	FLOW [SCFM]	[SCFM]		
1.	6.95	6.97	-0.02	-0.29	Pass
2.	9.10	9.05	0.05	0.55	Pass
3.	12.02	12.12	-0.10	-0.83	Pass
4.	15.88	15.98	-0.10	-0.63	Pass
5.	18.61	18.68	-0.07	-0.37	Pass
6.	21.23	21.47	-0.24	-1.12	Pass
7.	24.53	24.45	0.08	0.33	Pass
8.	26.80	26.91	-0.11	-0.41	Pass
9.	28.81	28.75	0.06	0.21	Pass
10.	30.19	30.16	0.03	0.10	Pass

AVERAGE DEVIATION ACROSS THE RANGE AT READING [%]:      **0.48**

This is to certify that the instrument identified on this certificate has on this date certified to be within the instrument accuracy specified above. The Reference Flow Device bears letters of certification traceable to the National Institute of Standards and Technology (NIST), USA.

CALIBRATED BY: \_\_\_\_\_ /KL/

Calibration Software and Equipment provided by F&J SPECIALTY PRODUCTS, INC. (V1.07.03 EN)  
 404 Cypress Road, Ocala, FL 34472, USA Tel: +1 352 680-1177 Fax: +1 352 680-1454 www.fjspecialty.com



# Full Scale Accuracy Calibration Certificate

<b>CERTIFICATE OF CALIBRATION</b>	<b>F&amp;J SPECIALTY PRODUCTS, INC.</b> 404 Cypress Road Ocala, FL 34472 USA Tel: +1 352 680-1177      Fax: +1 352 680-1454 Email: fandj@fjspecialty.com    www.fjspecialty.com THE NUCLEUS OF QUALITY AIR MONITORING PROGRAMS
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<b>MODEL #:</b>	Test	<b>SERIAL #:</b>	7784		
REFERENCE INSTRUMENT:	Test	CALIBRATION DATE:	01 JUN 2017		
REFERENCE SERIAL #:	56	RECALIBRATION DATE:	01 JUN 2018		
REFERENCE CALIBRATED:	15 JUL 2016				
FLOW TYPE:	Volumetric	ACCURACY TYPE:	Full Scale		
REFERENCE TEMPERATURE:	32°F	REFERENCE PRESSURE:	29.92 InHg		
GAS:	Argon				
INSTRUMENT FULL SCALE:			4.00 [SCFM]		
INSTRUMENT ACCURACY AT FULL SCALE:			± 2.00 [%]		
			<b>ACCURACY AS % Of F.S. [%]</b>		
	DEVICE UNDER TEST	REFERENCE INSTRUMENT	DEVIATION AT READING	PASS OR FAIL	
	FLOW [SCFM]	FLOW [SCFM]	[SCFM]		
1.	4.01	3.99	0.02	0.50	Pass
2.	3.64	3.66	-0.02	-0.50	Pass
3.	3.21	3.25	-0.04	-1.00	Pass
4.	2.88	2.90	-0.02	-0.50	Pass
5.	2.36	2.35	0.01	0.25	Pass
6.	1.98	1.99	-0.01	-0.25	Pass
7.	1.45	1.42	0.03	0.75	Pass
8.	1.01	0.99	0.02	0.50	Pass
9.	0.67	0.63	0.04	1.00	Pass
10.	0.41	0.39	0.02	0.50	Pass
AVERAGE DEVIATION ACROSS THE RANGE AT FULL SCALE [%]:			0.57		
This is to certify that the instrument identified on this certificate has on this date certified to be within the instrument accuracy specified above. The Reference Flow Device bears letters of certification traceable to the National Institute of Standards and Technology (NIST), USA.					
CALIBRATED BY: _____ /KL/					

Calibration Software and Equipment provided by F&J SPECIALTY PRODUCTS, INC. (V2.02.02 EN)  
 404 Cypress Road, Ocala, FL 34472, USA Tel: +1 352 680-1177 Fax: +1 352 680-1454 www.fjspecialty.com

# CERTIFICATE

Management system as per  
**EN ISO 9001 : 2015**

In accordance with TÜV NORD CERT procedures, it is hereby certified that

**F&J SPECIALTY PRODUCTS, INC.**  
404 Cypress Road  
Ocala, FL 34472  
USA



applies a management system in line with the above standard for the following scope

**Design and manufacture of portable and fixed station environmental air sampling instruments, airflow calibrators and supplies for radiological and non-radiological airborne pollutant monitoring applications. Product lines also include filter paper, filter holders, radiiodine collection cartridges and radon detection products.**

Certificate Registration No. 44 100 16560077  
Audit Report No. 17-2642

Valid from 2017-10-17  
Valid until 2020-10-16



Certification Body  
at TÜV NORD CERT GmbH

Salem, 2017-10-04

This certification was conducted in accordance with the TÜV NORD CERT auditing and certification procedures and is subject to regular surveillance audits.

TÜV NORD CERT GmbH

Langemarckstraße 20

45141 Essen

[www.tuev-nord-cert.com](http://www.tuev-nord-cert.com)



CB TEST CERTIFICATE

CERTIFICAT D'ESSAI OC

Product Produit	Air Flow Measuring Device
Name and address of the Applicant Nom et adresse du demandeur	F & J SPECIALITY PRODUCTS INC 404 Cypress Road, P.O. Box 2888, OCALA, FL 34472 United States of America
Name and address of the manufacturer Nom et adresse du fabricant	F & J SPECIALITY PRODUCTS INC 404 Cypress Road, P.O. Box 2888, OCALA, FL 34472 United States of America
Name and address of the factory Nom et adresse de l'usine	F & J SPECIALITY PRODUCTS INC 404 Cypress Road, P.O. Box 2888, OCALA, FL 34472 United States of America
Rating and principal characteristics valeurs nominales et caractéristiques principales	100/240V, 50/60Hz, 1.0A
Trademark (if any) Marque de fabrique (si elle existe)	F&J SPECIALTY PRODUCTS INC
Type of manufacturer's Testing Laboratories used Type de programme de laboratoire d'essais constructeur	
Model / Type Ref. Réf. de type	WC-xxE-VFD-z, WC-xxE-PC-z, WCMT-2E, WCMT-3E, WCMT-4E, WCMT-VFD-2E, WCMT-VFD-3E, WCMT-VFD-4E Where xxx can be: 801, 802, 812, 828, 814, 530, 550, 870, 890, 125, 150, 200, 300, 400, 500, 600, 750 or 999. z can be: O (orifice flow sensor), C (cone flow sensor), * (mechanical DP Sensor other than type stated above) or Blank
Additional information (if necessary may also be reported on page 2) Les informations complémentaires (si nécessaire, peuvent être indiquées sur la 2ème page)	
A sample of product was tested and found to be in conformity with IEC Un échantillon de ce produit a été essayé et été considéré conforme à la CEI	61010-1(ed.3)
National differences / Comments Les différences nationales / Commentaires	CA, CH, US
As shown in the test report Ref. No. which forms part of this certificate Comme indiqué dans le rapport d'essais numéro de référence qui constitue partie de ce certificat	101342985ATL-001C

This CB Test Certificate is issued by the National Certification Body:

Ce Certificat d'essai OC est établi par l'Organisme National de Certification

Intertek Testing Services, N.A.  
165 Main Street, Cortland, NY 13045, U.S.A.



Date: 2013-12-10

Signature: John Quigley





# F&J SPECIALTY PRODUCTS, INC.

404 Cypress Road  
Ocala, Florida 34472 USA

## ISO/IEC 17025:2005

*This laboratory is accredited in accordance with the recognized Standard ISO/IEC 17025:2005. "General Requirement for the Competence of Testing and Calibration Laboratories." This laboratory also meets the requirements of ANSI/NCSL Z540.3 2006 and any additional program requirements in the field of calibration. This accreditation demonstrates technical competence for a defined scope and the operation of laboratory quality management systems*

### **NIST Traceable Calibration & Servicing of Portable & Fixed Station Environmental Air Sampling Instruments & Air Flow Calibrators for Radiological & Non-radiological Airborne Pollutant Monitoring Applications**

**Additional Scope Detailed in the Attached Supplement**

*This approval is subject to the firm maintaining its system to the required standards, which will be monitored by AGS. In the issuance of this certificate, AGS assumes no liability to any party other than the firm named above, and then only in accordance with the agreed upon Quality System Assessment Agreement.*

Certification Number: AGS-US051717-1  
Original Approval: May 17, 2017  
Date of Issue: May 17, 2017  
Date of Expiration: May 16, 2020

  
For and On Behalf of American Global Standards, LLC



1187 Coast Village Road, Suite #495, Montecito, CA 93108 USA  
Tel: 617-838-4648

[www.americanglobal.org](http://www.americanglobal.org) ♦ [info@americanglobal.org](mailto:info@americanglobal.org)

