

total solutions

in calibration

Free catalogs present broad range of solutions

Finding out about the range of precision measurement products and services available from Fluke and Hart Scientific, a Fluke company, is fast and easy. Complete product information is available on our web site, calibration.fluke.com. But if you prefer to get information from the printed page, these catalogs will be helpful:

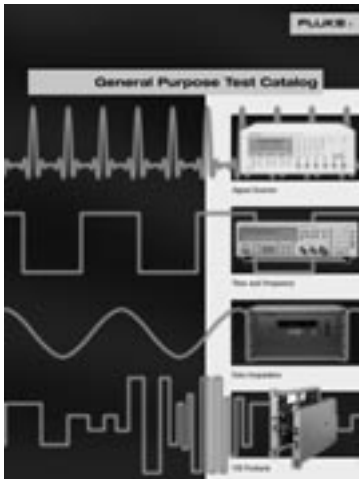
Total Solutions in Precision Measurement.

This 52-page catalog from Fluke provides summary-level information about all of the products and services in Fluke's precision measurement portfolio including calibrators, standards, digital multimeters for standards labs, calibration software, waveform and function generators, time and frequency products, data acquisition products, and service, support and training. It's a good starting point when you need a new product or service, but aren't sure what's available.

Once you've identified a specific product, you can request more details from Fluke or from your local Fluke representative.

General Purpose Test. This 84-page catalog from Fluke provides detailed information about signal sources, time and frequency products, data acquisition products and VXI products.

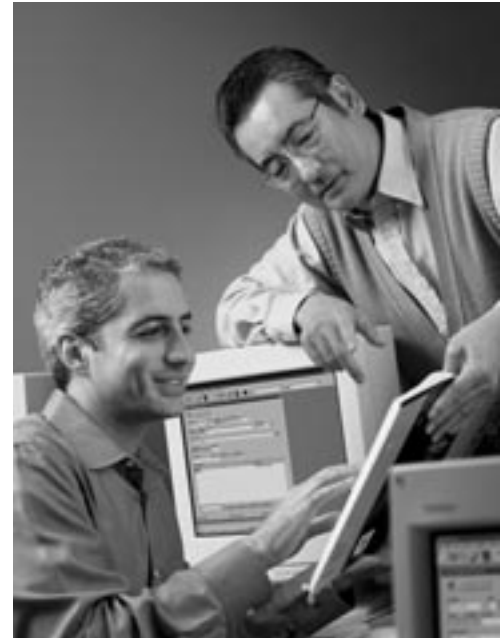
Hart Scientific. Hart Scientific, a Fluke company, has recently published its 2003-2004 catalog, 163 pages of detailed product information, plus useful guides to choosing and using temperature calibration equipment.



To obtain your free copy of any of these catalogs, simply circle the appropriate number(s) on the enclosed reply form.

Free training offer with 6100A Electrical Power Standard

For a limited period, buyers of the new Fluke 6100A Electrical Power Standard will receive free participation in one of the Fluke Power Calibration Training courses. The 6100A is the first instrument in its class that provides real traceable signals for calibrating power measurement and power quality instrumentation. Power phenomena can be reliably generated individually or simultaneously to determine the ability of these devices to detect and measure them under actual conditions. The 6100A provides an accurate, controllable source of pure sinusoidal electrical power, harmonically distorted electrical power, and user-definable sags, swells and flicker.



The Fluke Power Calibration Training courses introduce users to power and power quality measurement requirements, power quality phenomena, power measurement instrumentation and their legal calibration. They also include hands-on calibration exercises. The free training offer is valid until the end of 2003, and includes training participation in Norwich, UK.

For more information, circle the appropriate number on the reply form.

Fluke 8508A wins 2003 Test Product of the Year award

Fluke Corporation, the world's leading supplier of electronic test and measurement equipment, is the recipient of *Test & Measurement World* magazine's 2003 Test Product of the Year award. The award was presented to Fluke for its 8508A Reference Multimeter, chosen as one of 12 Best in Test products by *Test & Measurement World* magazine and voted Test Product of the Year by *Test & Measurement World* readers.

Test & Measurement World editorial director Larry Maloney explains the product is a winner with readers because "you can calibrate every function in a multifunction calibrator in a single box," giving users the ability to replace as many as eight calibration instruments with a single, powerful multimeter.

The 8508A is the first product developed jointly by the engineering team at Fluke headquarters in Everett, Washington, and the European engineering team in Norwich, United Kingdom. Fluke acquired the facility in Norwich when it bought Wavetek-Datron in 2000. "Our intent in acquiring Wavetek-Datron was to combine the talents of our engineering teams and build products that would redefine the calibration market," said Fluke Precision Measurement general manager Tom Johnson. "The 8508A is the culmination of a lot of hard work and to have it selected by the readers of *T&M World* is gratifying. This is the kind of product development success we envisioned three years ago."



The Fluke 8508A is designed to serve as a versatile precision measurement tool for calibration laboratories that must meet increasingly stringent measurement uncertainty analysis requirements demanded by ISO 17025. In addition to measuring voltage and current for both ac and dc, and frequency, the 8508A also includes a host of other features designed to increase the range of measurements made while improving calibration laboratory productivity. The performance of the Fluke 8508A gives metrology labs extremely high confidence and certainty with one-year accuracy as precise as 3 ppm and 20-minute transfer uncertainty of 0.12 ppm. Its dual displays with clear context-sensitive menus provide a logical and intuitive user interface that requires minimal training, even for metrologists who are new to the profession.

Find out how the 8508A can be an award-winning addition to your calibration laboratory. For a free brochure, just circle the appropriate number on the enclosed reply form. Product information is also available on the web at calibration.fluke.com.

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New warranted MET/CAL[®] procedures now available

Fluke continues to release new warranted procedures for MET/CAL *Plus* Calibration Software. These new procedures, produced by Fluke Precision Measurement engineers, are designed to satisfy your need for ready-to-go, fully tested procedures.

The newest procedures include verification procedures for Tektronix TDS7154 and CSA7154 oscilloscopes. A variety of updated procedures is also available for the Fluke 50 Series II Thermometers.

More than 650 warranted procedures are available to MET/SUPPORT[™] Gold members at no charge. Other software users can view and purchase warranted procedures online. A list of all warranted procedures, as well as the "core" procedures, is available on our MET/SUPPORT Members extranet site. All Fluke software customers are eligible to register on this site. Complete instructions on how to register are available on the Support page of calibration.fluke.com.



Get four MET/CAL[®] V7 warranted procedures FREE with 8508A purchase

In a special limited time offer, Fluke is giving away four MET/CAL V7 warranted procedures with each 8508A Reference Multimeter purchase. The procedures enable you to automate the 8508A for four commonly-used metrology applications: calibrating the Fluke 5500A Multi-Product Calibrator; calibrating PRTs; calibrating reference standards; and calibrating the resistance function of the Fluke 5700A/5720A Multifunction Calibrators.

If you have not yet become a MET/CAL software user, you can still benefit from this promotion. A trial version of MET/CAL *Plus* is included with the four free procedures. This is a great opportunity to try out MET/CAL *Plus* and experience the benefits of automating the 8508A.

New software release from Hart Scientific offers automated temperature calibration and asset management

MET/TEMP II[™] integrates with Fluke's MET/TRACK[®]

Hart Scientific, a Fluke company, has consolidated its Calibrate-*it* and Generate-*it* software systems into a new package called MET/TEMP II. The new software offers Hart customers automated calibration and can be integrated with Fluke Corporation's MET/TRACK[®] software to provide equipment tracking and asset management capabilities.

MET/TEMP II supports a wide variety of Hart thermometer readouts and can calibrate practically every type of temperature sensor, with a capacity of 100 sensors at a time. It tests thermocouples (all types), RTDs, SPRTs, thermistors, and liquid-in-glass thermometers. MET/TEMP II is now capable of using fixed-point instruments (such as TPW cells) as reference heat sources. In addition, the software can now calibrate heat sources such as dry-wells. It also performs ITS-90 coefficient and residual calculations and generates corresponding tables and reports.

This new automation and tracking capability makes MET/TEMP II a useful tool for organizations that are required by regulation to document procedures and maintenance programs.

MET/TEMP II is available from any local Hart distributor, or in the US you may buy direct from Hart by calling (801) 763-1600, (800) 438-4278, or emailing sales@hartscientific.com.

You'll find more information about this special promotion on the web at www.fluke.com/8508Apromo. For product literature, circle the appropriate number on the enclosed reply form.

New NPL guide describes good measurement practices

A Guide to Measuring Direct and Alternating Current and Voltage Below 1 MHz is the most recent in a series of guides on good measurement practice produced by the National Physical Laboratory (NPL) on behalf of the Department of Trade and Industry (DTI). The guide is for all who make current and/or voltage measurements that are traceable to national standards. It seeks to explain not just how to implement good practice, but also the reasoning behind the measurements described to encourage understanding as well as improve accuracy.

NPL is the United Kingdom's national standards laboratory, an internationally respected and independent centre of excellence in research, development and knowledge transfer in measurement and materials science.



Please contact Sara Fletcher at NPL if you are interested in purchasing this guide.

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Hart Scientific lab receives NVLAP accreditation



Hart Scientific's temperature calibration laboratory created quite a stir two years ago when it announced some of the tightest accredited uncertainties in the commercial world. Now, having undergone a rigorous re-examination of its processes and procedures, Hart's lab has received renewed accreditation under NVLAP – this time to the ISO/IEC 17025 standard.

Besides upgrading to the new 17025 standard, Hart's latest accreditation includes a number of added processes. Customers can now choose from four levels of calibration by fixed-point for SPRTs, PRTs, and thermocouples. A new "system" (meter and probe) process has been added. And comparison-calibration options exist for PRTs and thermistors, and thermocouples. Uncertainties remain virtually unchanged for previously accredited processes.

Tom Wiandt, manager of the Hart lab, had this to say: "The new procedures we've added really make our scope user-friendly. We now have accredited calibration options to specifically accommodate virtually every type of resistance thermometer for which we get calibrations requests."

In early 2003, Hart split its temperature laboratory into two labs: one for fixed-point or "primary" calibrations (and electrical resistance calcs) and one for "secondary" comparison calibrations of PRTs, thermistors, and thermocouples. Segregating the two labs has resulted in a significant reduction in turn-around times for customers. Both labs fall under the new scope.

Maximize your reference multimeter, minimize measurement uncertainties

The Fluke 8508A Reference Multimeter provides reference standard accuracy and stability, in a versatile, easy-to-use solution designed specifically for the metrologist. Its high performance allows it to be used in place of many traditional laboratory instruments such as Kelvin-Varley dividers, null detectors, resistance bridges and even Platinum Resistance Thermometer (PRT) calibrators.

Despite its versatility and technical sophistication, the 8508A Reference Multimeter is actually quite easy to use, thanks in part to Dual Paramatrix™ LCD displays and context sensitive menus. The menu structures have been designed for metrology applications, so you can focus on your measurements without having to work through complicated setups.



A new application note makes it even easier to take full advantage of the instrument's broad functionality. Titled "Maximizing your reference multimeter, minimizing measurement uncertainties," this publication provides details on product features and technical insights for making dc, resistance, True Ohms, and current measurements. It also explains how the 8508A/01 model automates the process of performing ratio measurements, making short term transfer practical.

This new application note is available free in the Application Notes section of our web site, calibration.fluke.com. To request a free printed version, simply circle the appropriate number on the enclosed reply form.

Making ratio measurements? Try the 8508A/01.

The 8508A/01 model includes a duplicate set of rear input terminals that makes it invaluable for making ratio measurements. Ratio measurements can be made on voltage and resistance functions. In True Ohms Ratio mode, the same excitation current flows through resistors connected to both the front and rear binding posts. This technique, along with True-Ohms current reversal, ensures measurement errors are minimized.

Fluke's new application note, "Maximizing your reference multimeter, minimizing measurement uncertainties," includes more details about using the 8508A/01 in ratio mode.



Detailed information about the 8508A Reference Multimeter, including specifications, is available on the web at calibration.fluke.com. For a printed brochure, simply circle the appropriate number on the enclosed reply form.

What's your power calibration problem?

Do any of these problems sound familiar?

"I'm sending a list of power products out for calibration; I'd like to bring a lot more of them in-house."

"I don't have enough accuracy for my power measurements."

"I've got a perfectly good power calibrator...if only it could drive bigger loads."

"My power calibration system is unreliable."

"I don't know how I am going to check some of the new measurements."

"Our engineers have designed a new measurement tool, and I don't know how I am going to test it."

"My power calibrator doesn't always meet its specifications."

"The flickmeter says $PST = 1.2$. I hope that's correct."

"One harmonic analyzer says 7% fifth harmonic, another says 8%. I wish I knew which one to believe."

Fluke understands your tough power measurement problems. And we have the most accurate and comprehensive solution in the industry: the Fluke 6100A Electrical Power Standard. It delivers the electrical signals, quantities and phenomena you need to test, characterize, verify or calibrate power measurement, logging, recording or control equipment. Whether your environment is design, manufacturing, test, service or calibration, the 6100A provides you with the tools you need to get your job done – quickly, reliably and precisely.

Get the details about how the Fluke 6100A can help solve your power calibration problems. Complete product information is available online at calibration.fluke.com. Or, for a free product brochure, simply circle the appropriate number on the enclosed reply form.

Fluke's Agy wins Woodington Award



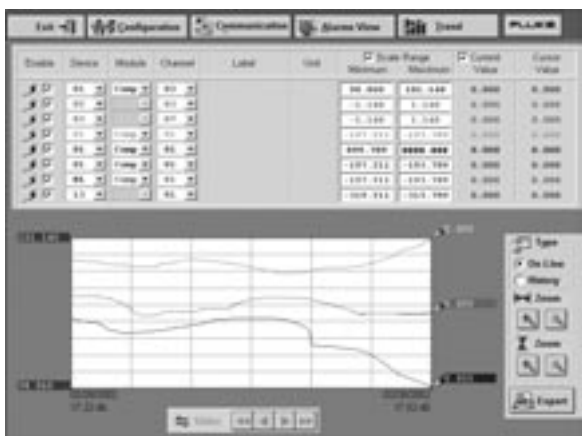
David Agy of Fluke Corporation has been named the 2003 Woodington Award recipient by the Measurement Sciences Conference, the professional organization whose goal is to promote education and professionalism in measurement science and related disciplines.

The announcement was made at the organization's annual conference, held recently in Anaheim, California. Agy is the 23rd recipient of the award, named for the late Andrew J. Woodington, and presented to individuals whose professionalism and dedication contribute significantly to the measurement science community.

Agy was honored for his 35-year career in metrology and calibration, including early work with the Navy's Metrology Engineering Center. He joined Fluke in 1977 as a Product Planner. Early in his Fluke career he was instrumental in working on the definition and development of a number of products including the 5100, 5400 and 5500 Series Calibrators, the 5220 Transconductance Amplifier, and the 5700A Multifunction Calibrator. More recently he serves as the principal troubleshooter and problem solver, providing technical support to internal managers and engineers as well as to customers.

Agy is President-Elect of the NCSL International. He is the third individual from Fluke to win the Woodington Award, joining Xumo Li (Hart Scientific, a Fluke company) who won last year, and Les Huntley, who was honored in 1994.

Powerful new software packages for the Fluke 2680 Series Data Acquisition Systems



This National Instruments driver's user interface was developed for ease of access to the basic 2680 Series instrument functions.

Fluke is pleased to introduce two new additions to the growing 2680 Series library of software. These new products enable you to incorporate 2680 Series systems into other systems you may already have in your workplace, giving you more flexibility than ever before.

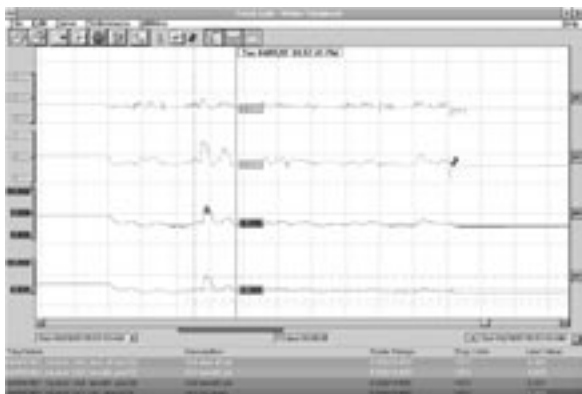
2680A National Instruments Driver

For users of National Instruments' LabVIEW graphical development environment, the new 2680A National Instruments Driver enables you to incorporate the 2680 Series into any LabVIEW application.

Trend Link Viewer with 2680A-OPC Software

Fluke's 2680-OPC Server software lets the 2680 Series communicate with any application supporting OLE for Process Control. Now we've combined this server software with Canary Labs' Trend Link Pro Viewer Version 5.4 to give you the ability to take data seamlessly from both the 2680 Series and Fluke NetDAQ® Networked Data Acquisition Systems, and to display it using one of the most popular trending programs available today.

Trend Link Viewer V.5.4 displays data in a variety of ways, including horizontal or vertical trending graphs. Other new features in version 5.4 include trend print previews, Log scales, ActiveX control capabilities for web interfacing, and custom chart tick marks.



The Trend Link Viewer screen is designed to show a maximum amount of information in an uncluttered, easy-to-understand format.

The 2680A National Instruments Driver is available for free download at www.fluke.com/daq06, along with detailed product information about the 2680 Series Data Acquisition Systems. For a free brochure describing the Fluke family of data acquisition products, just circle the appropriate number on the attached reply form.

Fluke and Hart Scientific Customer Training Schedule

Fluke Customer Training helps you get the most out of your test and measurement instruments and software. The following tables list upcoming courses scheduled around the world. Courses are taught in English except where indicated otherwise (in parentheses).

August 2003 Courses

Date	Course Length	Course Name	Location
August 11-15	5 days	Principles of Metrology	Tampa, FL, USA

September 2003 Courses

Date	Course Length	Course Name	Location
September 8-12	4 days	Metrology for Technicians	United Kingdom
September 15-19	5 days	Principles of Metrology	Boston, MA
September 15-19	5 days	MET/CAL Database and Reports	Dallas, TX
September 16-18	3 days	MET/CAL <i>Plus</i> Procedure Writing - Basic	United Kingdom
September 16-19	4 days	MET/CAL <i>Plus</i> Procedure Writing - Advanced	Spain (Spanish)
September 18-19	2 days	MET/CAL <i>Plus</i> Report Writing	Spain (Spanish)
September 22-26	5 days	Calibration Laboratory Management	Orlando, FL
September 22-26	5 days	MET/CAL Procedure Writing	Dallas, TX
September 23-26	4 days	MET/CAL <i>Plus</i> Procedure Writing - Advanced	United Kingdom
September 30-October 3	4 days	Advanced MET/CAL Procedure Writing I	Seattle, WA

October 2003 Courses

Date	Course Length	Course Name	Location
October 6-9	4 days	Advanced MET/CAL Procedure Writing II	Seattle, WA
October 7-9	3 days	MET/CAL <i>Plus</i> Report Writing	United Kingdom
October 13-17	5 days	Principles of Metrology	Seattle, WA
October 13-17	5 days	MET/CAL Database and Reports	Boston, MA
October 13-17	4 days	Cal Lab Management	United Kingdom
October 20-24	5 days	MET/CAL Procedure Writing	Boston, MA
October 21-23	3 days	MET/CAL <i>Plus</i> Procedure Writing - Basic	Spain (Spanish)
October 21-23	3 days	MET/CAL <i>Plus</i> Procedure Writing - Advanced	Spain (Spanish)

Temperature Seminars from Hart Scientific

Date	Course Length	Course Name	Location
September 15-17	3 days	Industrial Temperature Calibration	American Fork, UT
December 8-10	3 days	Temperature Metrology	American Fork, UT
December 10-12	3 days	Hart Product Training	American Fork, UT
TBA		Realizing and Approximating ITS-90	American Fork, UT
TBA		Temperature Metrology	Norwich, United Kingdom
TBA		Hart Product Training	Norwich, United Kingdom

For more details about Fluke course descriptions, locations or schedules, circle the appropriate number on the enclosed reply form. You can also find Fluke Precision Measurement training information on the web at calibration.fluke.com. Hart Scientific training information is available at www.hartscientific.com.

Events

Austria

September 30-October 3 Messtechnik Austria 2003, Vienna

Canada

Variable MET/CAL® User Group Meetings. Designed for MET/CAL Users, these group meetings focus on What's New in Fluke Calibration Software and Hardware with an Open Forum for discussion. If you would like more information or would like to be notified of the next meeting, please contact Pat Stuart at 1-800-36-FLUKE or by email pat.stuart@fluke.com

Finland

October 15 ELTEK Professional Electrical Technology Helsinki

France

October 21-23 Mesurexpo 2003, Paris
 October 20-23 Metrologie 2003, Toulon

Israel

November 4-6 2nd International Conference on Metrology, Jerusalem

Germany

September 23-25 MeasComp, Wiesbaden
 October 27-31 Interkama 2003, Düsseldorf
 November 11-14 Productronica, München

Russia

September 3-5 International Electronic Exhibition, Moscow

Slovenia

October 7-10 Modern Electronics, Ljubljana

South Africa

August 25-27 Test and Measurement Conference 2003, Johannesburg

Switzerland

September 2-5 Ineltec 2003, Basel

United Kingdom

September 10-11 Instrumentation South, Sandown
 November 18-23 MNC & BEMC, Cardiff

United States

August 17-21 National Conference of Standards Laboratories (NCSL) International Workshop & Symposium, Tampa Marriott Waterside Hotel, Tampa, FL
 October 21-23 ISA Expo 2003, Reliant Center, Houston, TX

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