บริษัท เอ็มบี เซลส์ แอนด์ เซอร์วิส จำกัด

MB Sales and Services Co., Ltd.
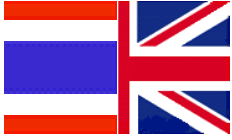
Calibration and Measurement

Product Guide

Established 2005

www.mbsalesandservices.com

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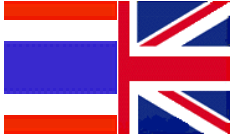# MB Sales and Services Co., Ltd.

With over 40 years of experience, we have developed unrivalled, extensive application and product knowledge, as well as our fast and comprehensive calibration services.

Our Engineering Sales team works closely with industry-leading clients, utilizing the latest technologies from world-class manufacturers. Trust us to provide you with the best solutions for your needs.

Product Range

- **Pressure**
- **Temperature**
- **Humidity**
- **Dew Point**
- **Electrical, Flow and Level**
- **Gauges**
- **Indicators**
- **Calibrators**
- **Controllers**
- **Moisture**
- **Hydrocarbon Dew Point**
- **Oxygen**
- **Oil in Water**
- **Gas / Air, Liquid / Water Analysers**
- **Dew Point Calibration Systems (DCS)**
- **Gas Chromatographs.**
- **Environmental Test Equipment – Climatic Chambers**
- **Deadweight Tester**
- **Comparison Pumps**
- **Test Bench Solutions**
- **Calibration Management Software**
- **Finger Tight Pressure Fittings and Hoses**

Services

Market Leading Equipment Supply

Calibration Services

Sales Consultancy

Bespoke Solutions

World Class Customer Support

40+ Years of Experience

Access to the latest Technologies

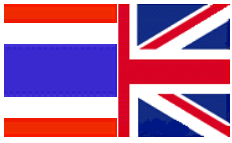**Scheduled Maintenance Servicing**

Our Mission

At MB Sales and Services, we are committed to providing our customers with the highest quality products to meet their industrial needs. Our team is dedicated to staying up-to-date with the latest advancements in the industry to ensure that we are always offering the best solutions possible. Our team is dedicated to optimizing industrial applications for our customers, with a focus on improving efficiency and accuracy.

We understand the importance of streamlining processes and maximizing productivity, and we work tirelessly to ensure that our solutions meet the unique needs of each client. Let us help you take your operations to the next level.

With over 40 years of experience, we have developed unrivalled, extensive application and product knowledge, as well as our fast and comprehensive calibration services.

Our Engineering Sales team works closely with industry-leading clients, utilizing the latest technologies from world-class manufacturers. Trust us to provide you with the best solutions for your needs.

PST Brands

PST brings together well-established brands, each of which are trusted for the precision and reliability of their products, strong innovation and singular focus on customer service. With a history of development and innovation starting in 1964 and continuing to the present day, we look forward to many more milestones to come.

**Part of DwyerOmega since November 2024.**
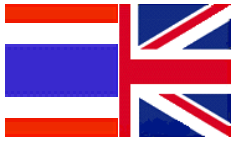
Michell Instruments offer a wide range of high-precision trace moisture analyzers, dew point meters, dew point sensors or transmitters, moisture transmitters, chilled mirror reference hygrometers and process moisture analyzers designed by Michell Instruments and other PST brands.

Products

- **Chilled Mirror Hygrometers**

- **Portable Hygrometers**

- **Dew Point Transmitters and Sensors**

- **Process Moisture Analyzers**

- **Moisture in Liquid Analyzers**

- **Hydrocarbon Dew Point Analyzers**

- **Humidity and Temperature Calibration Systems**

- **Oxygen Analyzers**

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MB Sales and Services Co., Ltd.

20 YEARS ANNIVERSARY

PST PROCESS SENSING TECHNOLOGIES | **MICHELL** Instruments
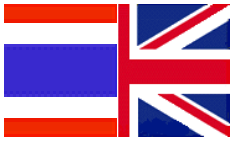
Chilled Mirror Hygrometers

Optidew

Highlights

- New chilled mirror hybrid sensor gives fast dynamic response to changes in humidity
- Accurate to ±0.15°C (±0.27°F) dew point, ±0.1°C (±0.18°F) temperature
- Wide measurement range from -40 to +120°C (-40...+248°F) dew point
- Choice of communication methods, including Modbus TCP over Ethernet communication for easy networking
- Optional pressure transmitter for accurate calculation of ppm_v & g/kg

Applications

- Reference humidity instrument for climatic and environmental chambers
- Inlet air measurement for engine testing
- HVAC testing
- Environmental monitoring in clean rooms
- Coating process monitoring—for confectionary and pharmaceuticals
- Control of humidity for metallurgical processes

S8000 Remote

Highlights

- Fundamental, accurate and drift-free measurement
- Remote sensor
- Open design allows remote sensor to be mounted into a sample flow or simply placed in an environment to be monitored
- –40...+120°C dew-point range with ±0.1°C accuracy
- Data logging via USB, Ethernet and SD card
- 'FAST' guarantees frost formation below 0°C
- Sensor operates in pressures up to 20 barg

Applications

- Engine test cell monitoring – from commercial vehicle to high performance engines
- Environmental chamber verification for:
  - Component testing
  - Corrosion testing
  - Pharmaceutical validation
- Precision HVAC control
- Lithium Ion battery manufacture

S8000

Highlights

- ±0.1 °Cdp (±0.18 °Fdp) accuracy
- Fundamental, accurate and low-drift measurement
- Simple configuration and operation via touchscreen interface
- Precision measurements to -60 °C (-76 °F) dew point
- FAST – guaranteed frost formation below 0 °C (+32 °F)
- Measure at pressures up to 2 MPa (20 barg)
- USB and Ethernet connectivity
- Datalogging to SD card or via digital comms

Applications

- Standards laboratory reference instrument
- Transformer vacuum drying verification
- Clean/dry room environmental monitoring
- Metallurgical process monitoring
- Reference instrument for commercial calibration laboratory
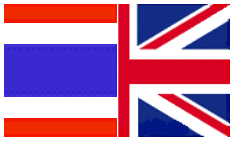- Compressed air dryer R&D
- Hydrogen fuel cell R&D

S8000 RS

Highlights

- Accuracy of ±0.1 °C (±0.18 °F)
- Precision measurement to -90 °C (-130 °F) frost point (95.4 ppb_v) with no need for additional cooling
- ±0.05 °Cdp (±0.09 °Fdp) stability at -90 °Cfp (-130 °Ffp)
- ±0.05 °Cdp (±0.09 °Fdp) reproducibility at -90 °Cfp for S8000 RS -90; ±0.025 °Cdp (±0.045 °Fdp) reproducibility at -80 °Cfp for S8000 RS -80
- Simple configuration and operation via touchscreen interface
- Sensor optimized for fast response to low moisture levels
- Microscope for visual inspection of condensate on mirror
- Compact 19" x 4U package for flexibility of installation
- Ethernet or USB connections
- SD card datalogging

Applications

- Reference humidity measurements in standards laboratories
- Reference instrument in humidity calibration facilities
- Precision moisture measurements in research and development
- Measurement standard for high-purity gas manufacture
- Measurement standard for semiconductor dry gas supply
- Clean/dry room monitoring
- Metallurgical processes

PST PROCESS SENSING TECHNOLOGIES | MICHELL Instruments

Chilled Mirror Hygrometers

S8000-100

Highlights

- Accuracy of ±0.1 °C (±0.18 °F)
- Precision measurement to -100 °C (-148 °F) frost point (13.8 ppb$_v$) with no need for additional cooling
- ±0.15 °Cfp (±0.27 °Ffp) reproducibility at -100 °Cfp (-148 °Ffp)
- Simple configuration and operation via touch screen interface
- Sensor optimized for fast response to low moisture levels
- External 4-wire Pt100 connections
- Microscope for visual inspection of condensate on mirror
- Compact 19" x 4U package for flexibility of installation
- Ethernet or USB connections
- SD card datalogging

Applications

- Reference humidity measurements in standards laboratories
- Reference instrument in humidity calibration facilities
- Precision moisture measurements in research and development
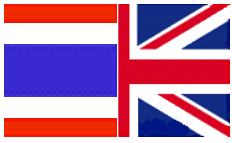
S8000-HT (High Temperature)

Highlights

- Accuracy of ±0.1 °C (±0.18 °F)
- Precision measurement to -30 °C to +95 °C (-22 °F to +203 °F) dew point
- ±0.05 °Cdp (±0.09 °Fdp) stability
- ±0.05 °Cdp (±0.09 °Fdp) reproducibility
- External PRT for RH measurements
- Simple configuration and operation via touchscreen interface
- Compact 19 in x 4U package for flexibility of installation
- USB + Ethernet or RS485 connections
- SD card datalogging
- Supplied with 2 m Heat Trace Lines

Applications

- Reference humidity measurements in standards laboratories
- Reference instrument in humidity calibration facilities
- Reference instrument for RH sensor manufacturing
- Precision moisture measurements in research and development

Dew Point Transmitters

EasiDew EA2

Highlights

- Measurement ranges -110 up to +20 °Cdp (-166 up to +68°Fdp)
- Dew point or ppm$_v$ moisture content output
- 2-wire loop power connection
- Accuracy ±2 °Cdp (±3.6°Fdp)
- Traceable calibration certificate
- Easidew I.S. IECEx, cQPSus, ATEX and UKCA approvals
- Low cost of ownership and easy maintenance with sensor exchange program
- 316 Stainless steel sensor and sample blocks
- 5/8" UNF, 3/4" UNF, G 1/2" process connections
- KF40 Glove Box flange
- MiniDIN 43650, M12 electrical connectors
- Oxygen Service cleaned

Applications

- Compressed air Class 1 to Class 6 dryers
- Breathing air
- Hydrogen coolant
- Inert and bulk gases
- Glove boxes
- Welding gases
- Hazardous areas
- Oxygen purity

EasiDew I.S.

Highlights

- IECEx, QPS, ATEX, UKCA certified transmitter for use in hazardous areas
- 5/8" UNF, G1/2" BSP or 3/4" UNF process connection
- Dew-point or ppm$_v$ moisture content
- 2-wire loop powered connection
- Rugged 316 stainless steel IP66 construction
- Measurement range -100...+20 °C (-148...+68 °F)
- Accuracy ±2 °Cdp (±3.6 °Fdp)
- Calibration Certificate (NPL, NIST)

Applications

- Moisture in Liquids
- Compressed air
- Medical Gas
- CNG Stations
- Trace Moisture

SF82

Highlights

- Dew point or ppm$_v$ moisture content output
- Accuracy ±2 °C (±3.6 °F) dew point
- Modbus RTU over RS485 digital communication
- 4...20 mA 2 wire
- Traceable 9 point calibration certificate
- Ultra-fast response to moisture change
- Low cost of ownership and easy maintenance with sensor exchange program
- 316 stainless steel sensor and sample blocks
- 5/8" UNF, 3/4" UNF, G 1/2" process connections
- KF40 Glove Box flange
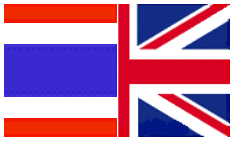- MiniDIN 43650 C, M12 electrical connectors

Applications

- Refrigeration dryers
- Membrane dryers
- Adsorption dryers
- Medical and surgical air
- Breathing air
- Additive manufacturing
- Plastic injection moulding
- Portable dew point checkers

SF52

Highlights

- Ideal for OEM dryer use
- Dew-point measurement range −40 to +60°C (−40 to +140°F)
- Fast response
- Rugged IP65 construction
- 3-Point traceable calibration certificate
- Accuracy ±2°C (±3.6°F)
- Voltage or mA outputs

7

PST PROCESS SENSING TECHNOLOGIES | **MICHELL** Instruments

Hygrometers with Display

EasiDew Advanced Online

Highlights
- Measurement range -110...+20 °C (-166...+68 °F) dew point
- Dew point or moisture content output
- Accuracy ±1 °C (±1.8 °F) dew point
- Pressure indication and compensation
- Touch screen reconfiguration
- 3 x 4...20 mA outputs and 4 relay outputs
- Modbus RTU over RS485 output
- Choice of AC or DC Power Supply
- Sample block and cable included
- Traceable 13-point calibration certificate

Applications
- Medical and surgical air
- Glove boxes
- Additive manufacturing
- Pharmaceutical
- Hydrogen refilling stations
- Welding gases
- Semiconductor manufacturing
- Membrane and adsorption dryers

EasiDew Online

Highlights
- Measurement range -100 to +20 °C (-148 to +68 °F) dew point
- Dew point or ppm_V moisture content output
- Accuracy ±2 °C (±3.6 °F) dew point
- 4 to 20 mA output
- Modbus RTU over RS485 output
- Dual configurable alarm outputs
- Choice of AC or DC Power Supply
- Sample block and cable included
- Traceable 13-point calibration certificate

Applications
- Membrane dryers
- Adsorption dryers
- Medical and surgical air
- Breathing air
- Additive manufacturing
- Glove boxes
- Plastic injection molding

SF82 Online

Highlights
- Measurement range -60 to +60 °C (-76 to +140 °F) dew point
- Accuracy ±2 °C (±3.6 °F) dew point
- 4 to 20 mA output
- Modbus RTU over RS485 output
- Dual configurable alarm outputs
- Sample block and cable included
- Traceable 9-point calibration certificate
- Ultra-fast response to moisture change

Applications
- Membrane dryers
- Adsorption dryers
- Medical and surgical air
- Breathing air
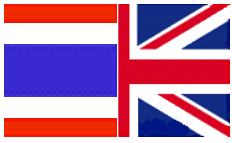- Additive manufacturing
- Glove boxes
- Plastic injection molding

Pura

Highlights
- Measures down to -120 °Cdp (-184 °Fdp) (1 ppb_V)
- Stable and repeatable measurement
- Fast response
- Economical and advanced monitor solutions
- Dew-point or moisture content output
- 4...20 mA and Modbus RTU over RS485 outputs
- Traceable 7-point calibration certificate
- 1/2", 1/4" male VCR process connections
- MiniDIN 43650 C, M12 electrical connectors
- Optional hazardous area approval
- Sensor exchange program

Applications
- Gas purification systems
- Semiconductor manufacture
- Pure gases
- Fibre optic production
- Optical coating processes
- Electronic component manufacture
- Speciality gas production and distribution

PST PROCESS SENSING TECHNOLOGIES

MICHELL Instruments

Dew Point Transmitters and Sensors

Pura

Highlights

- Measures down to -120 °Cdp (-184 °Fdp) (1ppb$_V$)
- Stable and repeatable measurement
- Fast response
- Modbus RTU over RS485 communication
- 4...20 mA 2 wire
- Traceable 7-point calibration certificate
- 1/2", 1/4" male VCR process connections
- Optional monitor/controller
- MiniDIN 43650 C, M12 electrical connectors
- Optional hazardous area approval
- Service exchange program

Applications

- Gas purification systems
- Semiconductor manufacture
- Pure gases
- Fibre optic production
- Optical coating processes
- Electronic component manufacture
- Speciality gas production and distribution

EasiDew Pro I.S.

Highlights

- Measurement range -110...+20 °Cdp (-166...+68 °Fdp)
- ATEX, IECEx, UKCA, cQPSus certified
- Accuracy ±1 °Cdp (±1.8 °Fdp)
- 2-wire 4...20 mA output
- Traceable 13-point calibration certificate
- 525 barg (7614 psig) pressure rating
- Alternative process connections available
- Material certification to BS EN 10204 3.1
- Moisture in gases and liquids
- Service exchange program
- Oxygen Service cleaned

Applications

- Natural gas production and processing
- Pipeline drying
- Fiscal metering of gas
- LNG production processing and receiving terminals
- Petrochemical process liquids
- Catalyst protection
- Polymer production
- CNG drying
- Metallurgical furnace blanket gas
- Compressed air in hazardous areas

Intrinsically Safe Field Display

Highlights

- Loop powered 4-20mA indicator. Intrinsically safe certified with ATEX, IECEx, UKCA, and FM
- Operating temperature between -40 and +70°C (-40 and +158°F)
- Bold 34mm high 4 digit display with optional backlight
- Robust GRP enclosure providing IP66 protection. Can be mounted by itself or inside a sampling system enclosure
- Built-in terminal compartment for easy wiring
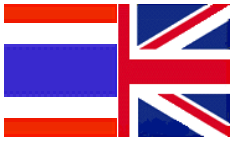- Two optional galvanically isolated solid state alarm outputs

EAsiDew Pro XP

Highlights

- Measurement ranges -110 up to +20 °Cdp (-166...68 °Fdp)
- Global explosion / flameproof certification
- Accuracy ±1 °Cdp (±1.8 °Fdp)
- 2-wire 4...20 mA output
- Traceable 13-point calibration certificate
- 450 bar (6527 psi) pressure rating
- Low cost of ownership and easy maintenance with sensor exchange program
- 3/4" UNF industry standard process connection
- EN 10204 3.1 material certification
- Moisture in gases and liquids
- Integral display meter
- Oxygen Service Cleaned

Applications

- Natural gas processing / transmission
- Polymer production
- Biomethane gas production
- Hydrogen coolants
- LNG & LPG production
- Inert & bulk gases
- CNG production
- Hydrocarbon refinery processing
- Heat treating furnaces
- Catalyst protection

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MB Sales and Services Co., Ltd.

20 YEARS ANNIVERSARY

PST PROCESS SENSING TECHNOLOGIES | **MICHELL** Instruments

Dew Point Transmitters and Sensors

EasiDew Sampler

Highlights

- Universal configuration for atmospheric or line pressure dew point measurements
- Integral particulate filter
- Metering valve for flow control
- Single block design for faster measurement response
- Gas pressure to 1 MPa (10 barg/145 psig) with a high pressure option to 21 MPa (210 barg/3046) psig available

Applications

- Compressed air dryers
- Plastic molding
- Ozone generators
- Medical gases
- Pneumatics
- Breathing air
- Welding gases

DryCheck

Highlights

- Integrated instrument and sampling system
- Simple installation
- Wide measurement range
- Dew point or moisture content
- Analog output, display and dual alarms
- IP65 (NEMA 12) enclosure

Applications

- Compressed air dryers
- Plastic moulding
- Ozone generators
- Medical gases
- Pneumatics
- Breathing air
- Welding gases

ES20

Highlights

- Process connection via 6mm or 1/4" tube fittings
- Dew point, moisture content, flow, contamination and pressure control
- Sample inlet pressure up to 20 barg
- Modular design
- Stainless steel tubing and fittings
- Flexible filtration options
- High quality components
- Designed for challenging process environments
- Optional displays

Applications

- Compressed air dryers
- Pneumatics
- Plastic moulding
- Instrument air
- Hydrogen coolants
- Breathing air
- Pure feed gases
- Heat treatment gases
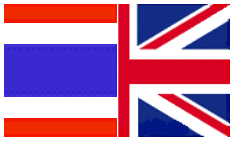- Inert gases

ES70
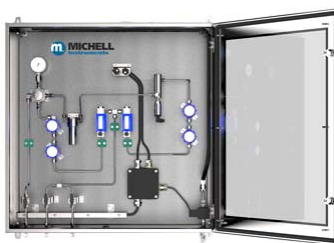
Highlights

- Indoor panel or outdoor enclosure mounting options
- Process connection via 6mm or 1/4" tube fittings
- High quality components, stainless steel tubing and fittings
- Sample inlet pressure up to 138 barg
- Flexible filtration options
- Choice of transmitter, flow and pressure control
- Comprehensive documentation options with BS EN 10204 3.1 certification and NACE MR0175 available

Applications

- Natural gas production, processing & transmission
- Biomethane gas production
- Fiscal metering of gas
- LNG production processing and receiving terminals
- Hydrocarbon refinery processing
- Catalyst protection
- Polymer production
- CNG production
- Heat treating furnaces
- Petrochemical process liquids

PST PROCESS SENSING TECHNOLOGIES

MICHELL Instruments

Portable Hygrometers

MDM 300 and MDM 300 I.S.

Highlights

- Repeatedly fast measurements at low pressure from less than 15 minutes for T95 to -60 °C (-76 °F)
- Higher pressure measurements possible up to 350 barg (5076 psig)
- Long battery life: up to 48 hours of typical use between charges
- Intuitive application kits allow quick and straightforward connection to your sample point
- Durable, yet easy to handle and operate: designed for use in industrial environments
- Lightweight: less than 1.5kg (3.3lb)
- 13-point traceable calibration certificate

Applications

- Dew point in natural gas processing and pipelines
- Monitoring of desiccant dryers for compressed air or plastic moulding equipment
- Moisture measurement in high-voltage switchgear quench gas
- Moisture measurement in petrochemical refineries
- Industrial gas production and transportation
- Medical gas quality
- Dew-point measurement in metallurgical applications
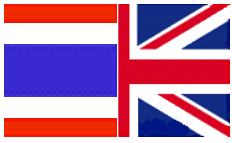
EasiDew Portable Dryer

Highlights

- Air-quality compliance to ISO 8573-1 Class 1–4
- Pressure dew-point monitoring to 20 barg
- Multi-parameter datalogging/downloading
- Touchscreen user-friendly interface
- Dew-point and pressure dryer outlet graphing
- Rugged construction for tough field conditions
- Designed for high electrical noise environments
- Integrated self-contained travel case
- Easy to maintain
- Stainless-steel gas-wetted parts compliant to -70 °C dew-point measurements
- Battery life of two working days

Applications

- Refrigeration and Desiccant Dryers
- Nitrogen Gas Generators
- Oxygen Gas Generators
- Railway Pneumatics
- Hydrogen Gas Generators
- Medical Gas Quality
- Inert Gas Blanketing
- Plastic Moulding Dryers
- Additive Manufacturing
- Benchtop Gas Generators

MDM 300 Sampling System

PST PROCESS SENSING TECHNOLOGIES | **m MICHELL Instruments**

Humidity Temperature Calibration Systems

Optical

Highlights

- Simple operation and maintenance
- Excellent chamber stability and uniformity
- Manual control or optional straightforward automated set point programming
- Generate 10 to 90% RH over +10 to +50°C (+50 to +122°F) temperature
- Built in precision chilled mirror reference instrument
- Transportable to allow on-site calibrations

ADG400

Highlights

- Full-color touch-screen HMI
- 11-point factory programmed dew-point setpoint table from -80 °C to +20 °C at 10 °C intervals
- 13-point user programmable dew-point setpoint table
- 3 programmable 13-point automatic calibration profiles with customizable timings
- Change set points using serial commands via built-in USB port
- Remote Access mode allows HMI to be operated using a connected PC
- Temperature-controlled enclosure to ensure output stability and repeatability

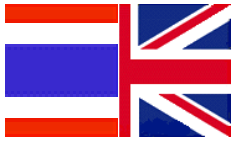## DG2, DG3, ADG400 and VDS3

Highlights

- Operation range of -75...+20 °Cdp (-103...+68 °Fdp) suiting the vast majority of calibration requirements
- Simple operation through manual flow mixing
- Flexibility in generating precise target dew-point temperature
- Generated output responds quickly to a change of set point
- Stable humidity generation

DCS

Highlights

- Complete dew-point calibration solution with optional compressor, dryer, dew-point generator, reference instrument and optional manifold
- Generated output responds quickly to a change of set point
- Stable humidity generation
- Simple operation through manual flow mixing or push-button switching of set points
- Remote control via RS232/USB comms (dependant on model)

Presys is a company specialized in Instrumentation and Process Control.

The products manufactured by Presys are made within an entire context of technology joining High Quality level and Reliability. Presys has the Quality Management System in accordance with ISO 9001:2015 and has a fully equipped laboratory which meets the strictest demands from either INMETRO or NIST. Developments are made by highly skilled engineers, always willing to assist in any emergency or need the customer may have.

•Founded: 1989

Quality Policy

"Provide products and services with the objective of guaranteeing customer satisfaction, through the fulfillment of their requirements, through the continuous improvement of our processes, products and services, valuing employees, giving them the necessary competence and abilities."

Products

- **Pressure Calibrators**
- **Desktop Calibrators**
- **Calibration Workbenches**
- **HART Communication**
- **Pressure Safety Valve Testing**

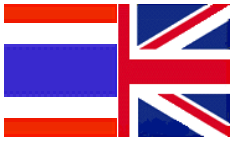**PCON-Y18 Range**

- •5.7" Touch Screen Color Display. Dual Core 1 GHz processor and Flash memory of 16 GB.
- •Easy Labview interface with the WebApi Commands.
- •Ethernet, Wi-Fi via USB/Ethernet router adapter, Serial USB with SCPI protocol.
- •Integrated WebServer, client-server technology to pick-up tasks on remote server.
- •Host/Device USB port.
- •HART® Communication standard.
- •Pressure switch automatic testing.
- •Input Current: -1 to 24.5 mA, • 0.01% FS.
- •Transmitter Power Supply: 24 Vdc regulated.
- •Leak test.
- •Temperature compensated accuracy from 0°C to 50°C.
- •User selectable pressure unit: Pa, hPa, kPa, MPa, bar, mbar, psi, mmHg@0°C,cmHg@0°C, mHg@0°C, inHg@0°C, inH$_2$O@4°C, mmH$_2$O@4°C, cmH$_2$O@4°C, mH$_2$O@4°C, mmH$_2$O@20°C, cmH$_2$O@20°C, mH$_2$O@20°C, kg/m², kg/cm², mtorr, torr, atm, lb/ft².
- •Easy Labview interface with the WebApi Commands.
- •Control speed: 20 s (for 10 % FS pressure increase in a 50 ml test volume).
- •Integrated electric pump for positive and negative pressure generation.
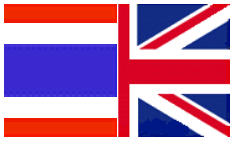
PRESYS

PCA-570

•Up to four optional pressure modules from 250 mmH?O to 10,000 psi, gauge or absolute pressure, including vacuum and differential pressure between any pair of outlets.
•Measures and generates mA and volts with accuracy to 0.02% of full scale. It has an input for a temperature sensor.
•30 Vdc power supply for two-wire transmitters.
•High visibility touchscreen display with user-friendly interface.
•Compact, portable, powered by rechargeable batteries with great autonomy for field use.
•Enables complete configuration of HART® devices. Compatible with DD configuration files registered with the FieldComm Group.
•Data logger function for all input and output types.
•Documentation capability.
•Creation of automatic calibration procedures.
•Ethernet, Wi-Fi, pen-drive, Hart, USB Host/Device connection.

PCON-Y17

•PCON-Y17 offers up to three extra inputs for pressure reading.
•Easy Labview interface with the WebApi Commands
•The calibrator allows the measurement of mA, mV, Volts, Ohms and RTD signals.
•Enables complete configuration of HART® devices. Compatible with DD configuration files registered in FieldComm Group.
•The calibrator features full documenting capabilities. It stores its own calibration certificate and enables the creation of automatic calibration procedures.
•Automatic calibrations are also possible by communication with the ISOPLAN® Calibration Management Software. In this way, the calibrator and computer share measurement data for a more efficient handling of information, such as report and certificate issue, and work order management.
•A highly visible touchscreen display allows easy configuration and operation.
•e-Connected: Ethernet, Wi-Fi, Pen-drive, Hart, Modbus and USB Host/Device.

PRESYS

CPY-250
CPY-500
CPY-750
CPY-1000

Specially developed for use in testing and calibration of pneumatic instruments.

Available in Desktop, Rack Mount and Field Service versions:

Suitable to provide a clean air for PCON-Y17 Pressure Controller.
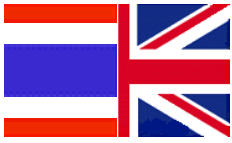Oil free (No oil needed) and clean air.
Digital control with hysteresis to adjust pressurizing value (setpoint).
Available in 3 models: Desktop, Rack Mount and Field Service.
The model FS can be operated using batteries.
Models for maximum pressures of 250 psi (17 bar), 500 psi (35 bar), 750 psi (52 bar) and 1000 psi (70 bar).
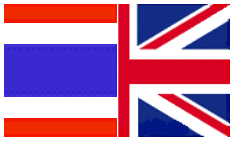Optional vacuum generation -12 psi (-0.80 bar).

PRESYS

MPYA

- Portable and compact.
- Used with Advanced Line Pressure Calibrators.
- It can be used in stand alone mode, connected to a computer, for online data acquisition.
- Features performance levels comparable to laboratory standards.
- Ranges from 250 mmH2O to 10,000 psi gauge or absolute pressure, including vacuum.
- Accuracy up to 0.025% of full scale.
- The module can be calibrated separately from the calibrator.
- Connected via USB, no external power required.

MCS-XV

- Measures and generates mA, mV, Volts, ohms, RTD, TC, and Hz with accuracy 0.01% up to full scale.
- Easy LabView interface with the WebApi commands.
- Up to four optional modules of 250 mmH$_2$O pressure to 10,000 psi. It has the barometric reference (optional) for absolute pressure indication.
- Hart Full Configurator (optional). Compatible with DD configuration files recorded in FieldComm Group.
- 24Vdc power supply for two-wire transmitter. internal 250 ohms resistor configurable.
- Documentation capability. Automatic calibration tasks can be created or executed with or without the use of computers.
- Calibration Reports issued directly to USB printer or PDF file.
- Data logger function for data acquisition and display in graphical format.
- Touchscreen display with high visibility friendly interface.
- Compact, portable, powered by rechargeable batteries for field use.
- Also available in versions Desktop (DT) and 19" Rack Mounting (RM).
- e-Connected: Ethernet, Wi-Fi (optional), Pen-drive, Hart and USB Host/Device.

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PRESYS

PC-507

- Available and upgradeable with up to four pressure input sensors.
- Ranges from 250 mmH$_2$O to 10000 psi gage or absolute pressure, including vacuum and differential between any pair of sensors.
- Accuracy of 0.025 % of full scale.
- Measures pressure, mA and volts and generates mA and volts. Provides a 24 Vdc power supply for 2-wire transmitters, and contact input for pressure switch verification.
- Includes input for optional temperature probe.
- The user can increase the number of sensors of the PC-507 by installing new ones in the calibrator.
- Interface with Windows-based Calibration Software ISOPLAN to provide a true Computer-Aided Calibration System with documenting capability.
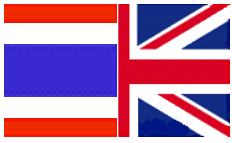- Real-time data acquisition capability when connected to a computer.

PC-507-IS

Intrinsically Safe
Ex ia IIC T4 Ga

- Up to four pressure sensors from 10" H$_2$O to 10,000 psi gauge or absolute pressure, including vacuum.
- Measures differential pressure between any pair of sensors.
- Measures and generates mA and volts.
- Includes input for optional temperature probe.
- Accuracy of 0.025% of full scale.
- Pressure Switch test.
- Portable, compact, powered by rechargeable batteries.
- Power supply for 2-wire transmitters.
- Serial communication.
- PC-507-IS is an intrinsically safe pressure calibrator Ex ia IIC T4 Ga certified for usage in Ex-hazardous areas Zones 0, 1, and 2..
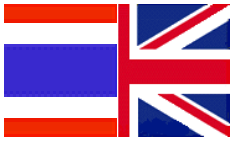
PRESYS

PCA-570

- Up to four optional pressure modules from 250 mmH?O to 10,000 psi, gauge or absolute pressure, including vacuum and differential pressure between any pair of outlets.
- Measures and generates mA and volts with accuracy to 0.02% of full scale. It has an input for a temperature sensor.
- 30 Vdc power supply for two-wire transmitters.
- High visibility touchscreen display with user-friendly interface.
- Ideal for use in 19" rack. Power supply 100 to 240 Vac, 50/60 Hz.
- Enables complete configuration of HART® devices. Compatible with DD configuration files registered with the FieldComm Group.
- Data logger function for all input and output types.
- Documentation capability.
- Creation of automatic calibration procedures.
- Ethernet, Wi-Fi, pen-drive, Hart, USB Host/Device connection.

MCS-XV

- Measures and generates mA, mV, Volts, ohms, RTD, TC, and Hz with accuracy 0.01% up to full scale.
- Easy LabView interface with the WebApi commands.
- Up to four optional modules of 250 mmH$_2$O pressure to 10,000 psi. It has the barometric reference (optional) for absolute pressure indication.
- Hart Full Configurator (optional). Compatible with DD configuration files recorded in FieldComm Group.
- 24Vdc power supply for two-wire transmitter. internal 250 ohms resistor configurable.
- Documentation capability. Automatic calibration tasks can be created or executed with or without the use of computers.
- Calibration Reports issued directly to USB printer or PDF file.
- Data logger function for data acquisition and display in graphical format.
- Touchscreen display with high visibility friendly interface.
- Compact, portable, powered by rechargeable batteries for field use.
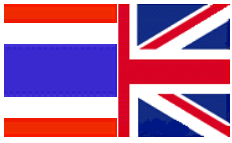- e-Connected: Ethernet, Wi-Fi (optional), Pen-drive, Hart and USB Host/Device.

PRESYS

Calibration Workstations

- Highest Value in Modern Metrology
- Complete Solutions for Pressure, Temperature, and Electric Signals.
- Integrated Systems – Software ISOPLAN.
- Automatic Calibrations.
- Application Engineering, Courses, Training.
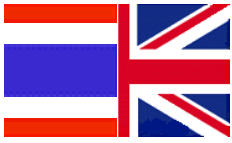- Own accredited Laboratory.

PRESYS

Workstation for Pressure Safety Valves Testing PSV

The Presys PSV Workstations are a family of transportable, compact, digital, and easy to operate stations for the testing and calibration of all sorts of Pressure Safety/Relief Valves in the range of ½" – 10" and up to 5000 psig (350 bar).

- Standard features:
- Three models with maximum pressures up to 5000 psig.
- Low pressure system for pilot operated valves.
- Polycarbonate safety shield for operator protection.
- Accept threated and flanged valves up to 10".
- Accurate digital pressure recorder.
- Bubble counter and adapter for leak detection and measuring.
- Easy-to-use control panel.
- Reduced pressure lost.
- Manual clamping system.
- Communicate with ISOPLAN® to produce calibration and test reports.
- Compact Dimension: 1.22(h) x 1.00(w) x 1.30(l) meter, 450 kg, total height with protection: 1.90 m.
- Skid-mounted for easy transportation or installation in containers.

EiUK

Eurotron Instruments UK limited

PGS10 – hand pump for low pressure calibration

The PGS-10 is an hand held calibration hand pump suitable for calibrate very low pressure devices

- Generate vacuum and pressure
- Pressure up to 10 bar
- Generate vacuum to -0.85 mbar
- fine adjustment up to 0.01 mbar
- Precision valve for bleed control

PGS1000 – High Pressure Hydraulic Test Pump

The PGS-1000 hydraulic pressure test pump provide hydraulic pressure up to 1000 bar (15000 psi). It operates both with OIL or WATER

- Range 0 to 1000 bar
- Oil or Water operated
- High Pressure/Priming Selection
- Precise fine adjustment valve and controlled Vent
- Supplied with test hose

PGS25e Electric Pressure Pump

Pressure generation made easy: generate pressure and vacuum, quickly and precisely with out manual efforts in a range between -0.900 and 25 bar

PGS40 – Pressure Calibration Hand Pump

The PGS-40 is a light weight combined vacuum and pressure calibration hand pump designed to provide maximum pressure with minimum effort. It can be be used as a precision pressure calibrator in the field when used in conjunction with our range of digital test gauges.

- Pressure and Vacuum output
- Pressure up to 40 bar
- Vacuum to -28,5 InHg
- Fine Adjust Vernier
- Needle Valve for controlled pressure
- Field Serviceable

The Source for Calibration Professionals

Isotech are the standard in temperature calibration and measurement. Developing innovative solutions for calibration facilities in over 125 countries.

We remain unique in our approach, not only do we manufacture equipment, but we operate our own full scale UKAS accredited laboratory.

Operating our own laboratory has given us a deep understanding of the challenges that organisations utilising temperature calibration and measurement devices face. Problems which we answer with our huge variety of calibration solutions.

We are very proud of the contribution we have made to temperature metrology over the last 40 years and we are looking forward to what the 2020s will bring.

Performance and quality has always been our priority, helping us earn an excellent reputation for our products. Over four decades of operation, we have received recognition in the form of several major awards. Perhaps one of our proudest moments came in 2017 when we were awarded the Queen's award for Enterprise for the development of the microK Thermometry Bridge.

Products

- **Primary Standards**

- **Secondary Laboratory**

- **Industrial Calibration**

- **Temperature Measurement**

- **Infrared Calibrators**

- **Thermocouple Referencing**

- **High Accuracy Temperature Measurement**

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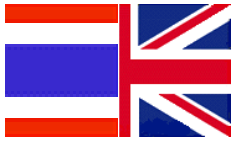
ISOTECH

Thermometry Bridges and Precision Thermometers

Isotech offers instruments for the Primary Laboratory through to Industrial calibration applications.

The microK is the only instrument of its type in the world which will work to <1mK precision and support all three commonly used sensors, platinum resistance thermometers (PRTs), thermocouples and thermistors. Long term, the stability of the microK achieves literally zero drift for resistance ratio measurements and an annual drift of <3 ppm for voltage measurements.

microK

The microK Precision Thermometer: An unequalled combination of accuracy, stability and versatility.

- Accuracy <20 ppb
- 3 Channels
- Stability of 0 ppm / year
- Resistance range of 0 - 500 kΩ
- Internal resistance standards 1, 10, 25, 100 and 400Ω
- Supports SPRTs, PRTs, Thermistors and Thermocouples

milliK

RTD, Thermocouple and Current inputs

- Accuracy to 0.003°C (3mK)
- 0.0001°C resolution (PRT Inputs)
- SPRT, PRT, Thermistor, Thermocouple and Current inputs
- Datalogging
- Controls Isotech Dry Blocks and Baths

Fast and Rugged Dry Block Bath Calibrators

Fast-Cals are the top choice for quick and easy on-site calibration, suitable for Washer Disinfectors, Steam Sterilizers, Autoclaves, and general calibration tasks.

Our rugged models, originally tested for the US Navy, are among the world's most durable temperature calibrators, now available to a wider market without compromising quality. Both models come with standard or custom-drilled inserts.

Fast-Cal

Three Models: -35°C to 650°C time proven designs for fast, accurate calibration on site.

- Rugged & Lightweight
- Accuracies: ±0.15°C to ±2°C
- Shoulder Carry Case Included
- PC Interface and Software

Rugged Calibrators

Two Models -40°C to 660°C

- Fast, reliable, and accurate
- Rugged, IP56, designed for use in harsh environments
- Use in cold environments - down to -29°C
- PC Interface and Software

Metrology Baths and Furnaces

We can confidently claim that Isotech manufactures the widest selection of Metrology Baths, Furnaces and Fixed Point Apparatus. There are simply too many to discuss here, so if you are in the market for this equipment please call us with your requirements.

Shown here is one of our more popular models - The Medusa 3. Our full range of Metrology baths have the following advantages:

- Temperature range covering -25°C to 1100°C
- Suitable for fixed points from Indium to Silver
- Equalizing blocks available for comparison calibrations
- Black body option
- Surface sensor calibration option
- Extended depth calibration volume is ideal for longer probes and minimising stem conduction

METAL BLOCK BATH | STIRRED LIQUID BATH | ICE/WATER BATH | BLACK BODY TARGET | SURFACE SENSOR KIT | ITS-90 FIXED POINTS

Model	Temperature Range
Oceanus-6	-25°C to 140°C
Stirred Ice Bath	0°C
Medusa 510	30°C to 550°C
Oberon	450°C to 1100°C

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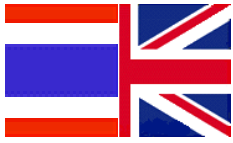
ISOTECH

Portable Calibrators for **Industrial Sensor Calibration**

Multi-Function Isocal-6 - use as a Dry Block, Liquid Bath, Blackbody, Surface Sensor Calibrator or ITS-90 Fixed Point System.

Buying a Dry Block or Liquid Bath? Spending too much money because you need both? Now you can have the benefits of both and more, with an Isocal-6 from Isotech! The Isocal-6 is a flexible range of calibration systems that can calibrate all types of temperature sensors. With the Isocal-6, different inserts are added to the bath to allow it to be used in 6 different modes, providing a solution for all temperature sensor calibration requirements. With optional accessories the Isocal-6 can perform as a dry block calibrator, a stirred liquid bath, a stirred ice bath 0°C reference (cooling models only), a blackbody source for IR thermometers, a calibrator for surface sensors or an ITS-90 fixed point apparatus.

The advantage of the Isocal-6 is that you need only purchase the main calibrator initially, and can add other accessories at any time to increase your accuracy, stability and overall capability. Each different calibrator type has unique advantages. For example, Stirred Liquid Baths generally provide better stability, uniformity and heat transfer than dry blocks. Liquid baths are ideal for awkwardly shaped, angled or short sensors and provide uniformity.

Different Isocal-6 models cover the temperature range from -45°C to 250°C. Above this maximum temperature it is not practical to use a Stirred Liquid Bath. For more information please refer to the table below.

METAL BLOCK BATH | STIRRED LIQUID BATH | ICE/WATER BATH | BLACK BODY TARGET | SURFACE SENSOR KIT | ITS-90 FIXED POINTS

Model	Europa-6	Venus	Calisto	Hyperion	Drago	Oceanus
Temperature Range*	-45 to 140°C	-35 to 140°C	30 to 250°C	-25 to 140°C	30 to 250°C	-25 to 140°C
Calibration Volume	35 x 160mm	35 x 160mm	35 x 160mm	65 x 160mm	65 x 160mm	50 x 300mm
Heat / Cool Speed	●●●●●	●●●●●	●●●●●	●●●●○	●●●●○	●●●○○

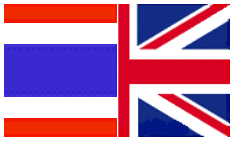| Stabilities from	
Metal Block	±0.005°C
Liquid Bath	±0.005°C
Ice/Water Bath at 0°C	±0.001°C
Blackbody	±0.3°C
Surface Sensor Kit	±0.5°C
ITS-90 Fixed Point Cells	±0.0005°C

Portable Calibrators for
High Temperature Industrial Calibration

Isotech's High Temperature Block Bath range offer industry leading performance in easy to use packages - ideal for the calibration of thermocouples and platinum resistance thermometers. They have been designed for fast heating and cooling and, for added flexibility, surface sensor and infrared thermometer accessories can be added.

All our Block Baths, from Basic to ADVANCED are exceptionally easy to use with a clear user friendly interface and include a PC Interface and Software. Different models provide a range of block sizes to suit a wide variety of sensors and together span the range from 35°C to 1200°C.

METAL BLOCK BATH | BLACK BODY TARGET | SURFACE SENSOR KIT

Model	Jupiter	Gemini	Medusa	Pegasus
Temperature Range	35 to 650°C	35 to 700°C	30 to 700°C	150 to 1200°C
Calibration Range	35 x 148mm	64 x 160mm	45 x 285mm	33.5 x 130mm
Heat / Cool Speed	●●●●●	●●●○○	●●●○○	●●●●○

Stabilities from	
Metal Block	±0.02°C
Blackbody	±0.2°C
Surface Sensor Kit	±0.5°C

ISOTECH

ITS-90 Fixed Points and Apparatus

Isotech manufactures a complete range of ITS-90 fixed point cells from the Argon Triple Point to the Freezing Point of Copper. Many nations rely on Isotech for their primary temperature standards. There are a range of metal and quartz clad ITS-90 Fixed Point cells with the lowest of uncertainties.

In addition to solutions for the world's leading NMIs there are more cost effective solutions, still with uncertainties to less than 1mK to suit a wider range of laboratories.

Jarrett-Isotech Water Cells
- Available in 4 different sizes
- Reference cells with isotopic analysis
- Uncertainties as low as 0.07mK
- Slim cells for industrial applications

Other ITS-90 Fixed Points
- All ITS-90 fixed points
- Automated systems
- Available in large and slim sizes
- Available in quartz and metal crucibles

Benchtop ITS-90 Fixed Point Calibration
- Outstanding Performance, from 0.7mK
- Patented Immersion Compensator
- Robust - No Glass Parts, Easily Transported

Large Volume Dry Blocks

Our professional large-volume dry block calibrators are designed for deep sensor immersion, minimizing stem conduction losses in larger probes. These calibrators enhance accuracy and reduce uncertainty by ensuring uniform immersion depth, offering reliable performance from -25°C to 1100°C.

- Temperature range covering 200°C to 1200°C
- High Accuracy Thermocouple Calibration
- Calibrate both Laboratory and Industrial Thermocouples

Innovation from Isotech

Isotech is renowned for innovation, with award winning products like the ISOTower ITS-90 Fixed Points, Argon System, microK Thermometry Bridges, the milliK Precision Thermometer and Isocal-6; the multi function calibrator providing Dry Block, Liquid Bath, Surface Sensors, Blackbody and Fixed Point calibration.

In 2017 Isotech was awarded the Queen's Award for Enterprise recognising both the innovation and commercial success of the world leading microK Thermometry Bridge.
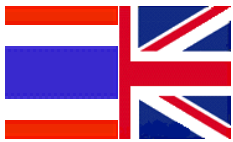
ISOTECH

Secondary Laboratory Equipment

Many accredited laboratories rely on Isotech for comparison baths, standards and instruments. We offer comparison equipment from -200°C to 1300°C as well as cryostats and liquid nitrogen apparatus. Isotech stirred liquid baths use concentric and parallel tube designs for outstanding performance. The concentric design of the Spherical Furnace provides a solution for small uncertainty calibration of thermocouples to 1300°C.

Liquid Baths

- Temperature ranges covering -80°C to 300°C
- Parallel Tube action
- Commercial grade chiller
- Stability from ±0.0006°C
- Up to 530mm calibration depth
- Fast cool-down
- Circular design eliminates cold corners
- Exceptionally small gradients

Fluidised Bath and Thermocouple Calibration Furnace

- Safe, accurate comparison calibration equipment for use to 1300°C

Blackbody Calibration Sources

When leading manufacturers of infrared thermometers choose your product as the basis by which their product passes or fails, you know you have something good. Isotech is the only manufacturer of blackbody calibration sources to have developed a complete line from hand held field testers to black body fixed point cells for primary labs. Our more popular models include the Gemini R and Pegasus R.

Gemini R

- Temperature range of 50°C to 550°C
- 65mm cavity size
- Emissivity of 0.995
- Portable, yet can accept fixed points for primary reference

Pegasus R

- Temperature range of 150°C to 1200°C
- 20mm cavity size
- Emissivity of 0.995
- Portable, yet can accept fixed points for primary reference

Thermocouple Referencing Systems

Isotech's first thermocouple referencing systems were developed for our own lab use to provide a single point ice reference for our cold junctions. We then developed multi-input systems for use in power plants and aviation test stands. In addition to ice point references, Isotech manufactures a variety of elevated and ambient temperature referencing systems. Most units are custom built for the application. If you have special thermocouple referencing needs, call us and see how we can help.

Multi-Channel Systems

- Reference up to 200 thermocouples in one system
- Benchtop, Wall Mount and 19" rack mount options
- Pre-wired thermocouples or do-it-yourself systems

TRU 938

- 0°C or elevated reference temperatures
- Stability better than 0.05°C
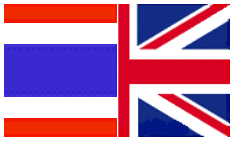- Multi-junction probes and various terminations available

Standard Thermometers

We manufacture a range of standard thermometers from Standard Platinum Resistance Thermometers (SPRTs) through to industrial standards. Our Standard Thermocouples can be supplied calibrated for use up to 1600°C. Resistance thermometers are available covering the range from -200°C to 1084°C. Isotech manufactures primary standards with uncertainties better than 1mK (0.001°C) to affordable rugged standards for industry and can provide UKAS calibration from our leading laboratory.

Qrometric

FPG DEW POINT CALIBRATOR

Qrometric is a UK metrology company specialising in product and system innovation. Our objective is to deliver products and services that solve specific project challenges or meet needs not ideally resolved by existing technology or thinking.

Our application knowledge and technical expertise, is based on a combined experience of more than 60 years in metrology, instrumentation, fundamental research and product development. This experience underpins everything we do, and we share this with our customers and suppliers.

The FPG enables precise test and calibration of dew point sensors, moisture analysers and most types of hygrometer. Compact and transportable, the FPG is suitable for use in the laboratory and on-site.

Primary saturator humidity generator – fundamental precision
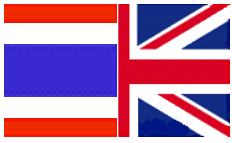**Transportable – suitable for use in the laboratory or on-site**
Self-contained – no need for external services
-100 … 10°C dew point – covers the working range of most DP instruments
Three configurable probe ports – compatible with all types of dew point probe
Transfer standard sample loop – connection of a reference instrument
Moisture Analyser connection – enables calibration of all types of hygrometer

Leading the Way in Comprehensive Environmental Testing Solutions

Environmental Testing is carried out to ensure and verify the robustness and reliability of manufactured products, materials or devices and to simulate conditions they will experience during transportation, storage and operation. Industries such as Aerospace, Automotive, Pharmaceuticals, Electronics, Construction, and many others have been carrying out environmental test programmes for years and the quality and safety of finished goods has never been as high as it is today.

CVMS Climatic is at the forefront of the design, build and supply of Environmental Test Equipment from its standard Climatic Test Chambers to large-scale Walk-in or Drive-in Environmental Test Facilities.
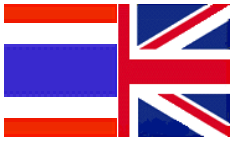
As well as controlling temperature and humidity in the test space, we also offer a wide range of products that simulate other environmental effects such as Low Pressure (Altitude), Solar Radiation, Rainfall, Dust, Pollution and Corrosive atmospheres.

We offer our expertise in the field of combined testing where more than one environmental effect is required such as vibration and temperature cycling.

Put your products to the test in one of our chambers. Whether your requirement is for a simple bench top or a complicated test facility we have the means to meet your expectations.

Products

- **Environmental Chambers for the following environments:**

- **Climate**

- **Vibration**

- **Ageing**

- **Vacuum Drying**

- **Altitude**

- **Thermal Shock**

- **Air Treatment**

- **UV**

- **Corrosion**

- **Ingress Protection**

- **Battery Testing**

CVMS | CLIMATIC

Compact Chamber Specifications
- Internal volume: three chamber sizes: 36, 64 and 100 litres
- Temperature ranges: -20°C, -40°C, -50°C, -70°C…+180°C
- Heating rates: up to 5°C / min
- Cooling rates: up to 5°C / min
- Temperature fluctuation: ±0.5°C
- Temperature uniformity: ±1.5°C
- Humidity range: 30%RH … 98%RH
- Humidity fluctuation: ±3%RH

Climate Chamber Specifications
- Internal volume: six chamber sizes: from 150 to 1000 litres
- Temperature ranges: -20°C, -40°C, -50°C, -70°C…+180°C
- Heating rates: up to 5°C / min
- Cooling rates: up to 5°C / min
- Temperature fluctuation: ±0.5°C
- Temperature uniformity: ±2.0°C
- Humidity range: 20%RH … 98%RH
- Humidity fluctuation: ±3%RH

2 Zone Specifications
- Internal volume: four chamber sizes up to 1000 litres
- Thermal shock range: -65°C … +180°C
- Conversion time: 5 sec
- Recovery time: ≤5 min

3 Zone Specifications
- Internal volume: five chamber sizes up to 1000 litres
- Thermal shock range: -65°C … +180°C
- Pre-heat range: +70°C … +200°C
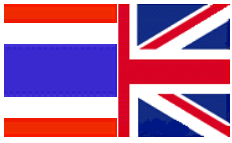- Pre-cool range: -10°C … -75°C
- Recovery time: ≤5 min

Specifications
- Internal volume: typically, from 8m3 upwards as required
- Temperature ranges: typically, from -70°C…+150°C or as required
- Humidity range: typically, 10%RH … 95%RH or as required

Specifications
- Solar radiation
- Rainfall
- Low pressure
- Vibration

30

20 YEARS ANNIVERSARY

VaeTrix

Our family of Gauges include NIST certificate with data and are backed with a 4 Year Warranty. This combination of features and factory support gives you excellent value for the price. With true graphic displays and features like snapshot, visual alarm, real time clock, and dual sensor technology, Vaetrix takes calibrating and measuring pressure to a new level.

Products

• **Calibration Gauges**

• **Process Gauges**

• **Panel Mount Gauges**

• **Hydro series and Hydro Kits**

• **Hydro Temperature Probe**
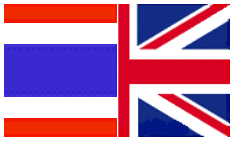
• **Hydro Data Management Software**
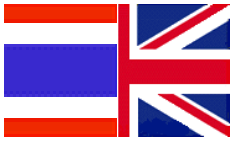
STIKO

STIKO manufactures high-end mechanical instrumentation,

in a conjoint effort between employees, customers and partners.

Reliability, flexibility, involvement and quality are key factors in this process.

In the early 1960's, all industrial dial thermometers are mercury-filled.
Widespread mercury use poses a threat to the environment and the need arises for a better and environmental-friendly alternative.
Mr. J.G. Stiller and Mr. A. van der Kolk, two engineers employed in a local instrumentation manufacturer, join forces and fulfill their dream of developing such an alternative.

Over the years, STIKO has steadily grown into the global player it is today. As of the mid 2010's, STIKO is one of the world's largest manufacturer of high quality gas-filled thermometers, a versatile force in custom-made pressure gauges (high pressure, subsea gauges, differential gauges, ATEX certification and/or chemical seal), a leading manufacturer of chart recorders for temperature and/or pressure, and a specialist in the area of pressure calibration equipment.

Time Electronics
Calibration, Test and Measurement

Established in 1967 Time Electronics Ltd is an UK based company that designs and manufactures calibration and metrology instruments. From a humble scientific background the company has grown into a reputable brand trusted by companies and customers worldwide.

Our comprehensive range of products provides users with solutions for test and measurement applications within their respective industries.
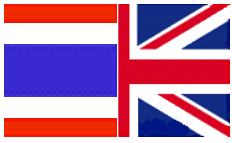
Our range of products include decade boxes, electrical calibrators, digital multimeters, process calibrators, pressure testing instruments and calibration software.

In addition we manufacture customised multifunction test benches, and design and supply turnkey calibration labs, electrical and instrument workshops, and engineer training centres.

EasiCal Calibration Software

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MB Sales and Services Co., Ltd.

20 YEARS ANNIVERSARY

Time Electronics
Calibration, Test and Measurement

5018 Programmable DC/AC V/I Calibrator

- 0 to 22 V DC
- 220 V and 1 kV DC options
- 0 to 220 mA AC/DC options
- 0 to 22 V AC option
- Ramping feature
- GPIB / RS-232 / USB interfaces
- Ideal for ATE applications

5051Plus Multifunction Calibration System

- Combined calibrator/multimeter/PC
- 0 to 1050 V & 0 to 22 A (AC/DC)
- Source up to 1 GΩ resistance
- Thermocouple simulate & measure
- Pt100 simulate & measure
- Capacitance and inductance
- Oscilloscope calibration

5065 6.5 digit Multimeter

- DC V to 1000 V, AC V to 750 V
- AC/DC current to 3 A
- Two and four wire resistance
- Frequency from 3 Hz to 300 kHz
- Period and diode measurement
- Temperature measurements
- USB interface, optional GPIB
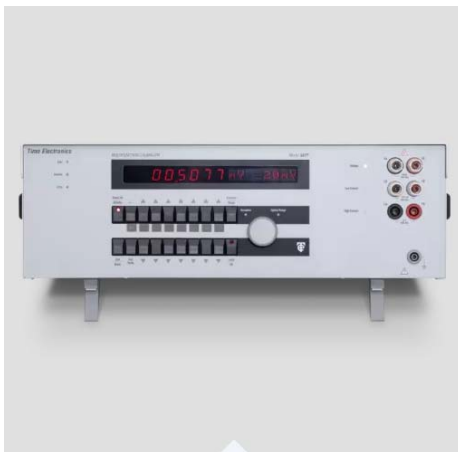
5077 Multifunction Power Calibrator

- 0 to 1050 V AC/DC voltage
- 0 to 22 A AC/DC current
- Single-phase power simulation
- Up to 23 kVA or 23 kW
- Phase angle ± 90.0°
- Power factor 0.00 to 1.00
- 40 to 500 Hz adjustable frequency

5069 Insulation Tester Calibrator

- 100 kΩ to 100 GΩ
- Basic accuracy 1 %
- Up to 10 kV operation
- Portable with battery operation
- Fully shrouded safety connectors
- Display of open circuit voltage
- Display of short circuit current

1040 Resistance Decade Box

- 1 Ω to 100 MΩ
- High accuracy
- Clear visual indication
- High stability
- Safety terminals
- Low temperature coefficient
- Supplied with protective cover

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MB Sales and Services Co., Ltd.

20 YEARS ANNIVERSARY

MICHELL Instruments
A PST BRAND

PRESYS

SIGNAL GROUP

ISOTECH

CVMS CLIMATIC

AGC INSTRUMENTS
Gas Chromatography since 1965

Analytical Industries Inc
A PST BRAND

STIKO

Qrometric
Industrial and scientific metrology

Time Electronics
Calibration, Test and Measurement

VaeTrix

hemera analyzers

Rocsole
SEE BEYOND.

DWYEROMEGA

AIROPTIC
REAL TIME GAS ANALYZERS