

DataTrace Data Loggers



- ✓ Intrinsically safe
- ✓ Compact for precision
- ✓ FDA 21 CFR part 11 compliant
- ✓ Powerful, comprehensive software
- ✓ Suitable for autoclave applications

 **DataTrace**
by Mesa Labs

DISCOVER

Withnell Sensors

Temperature & Humidity Specialists

Withnell Sensors offers expert support and product solutions for your temperature and humidity measurement requirements. With over 40 years combined experience in our field, we continue to be sought out as experts in the services that we offer.

Philip de Freitas, our Managing Director, has worked in the industry for over 30 years predominantly specialising in equipment by the well-known validation brand Kaye. Leaving the manufacturer in 2006 and setting up his own company, Philip has since grown the team and the business into the multi-faceted, international organisation it is today. We are pleased to offer the following:

- Sale of temperature and relative humidity data loggers and monitoring systems.
- Service and calibration for a range of equipment including UKAS accredited calibration of the Kaye IRTD, Kaye Validator & Sims. Currently we are the only service provider in Europe able to offer an accredited calibration of the Kaye Validator.
- Exclusive distribution of Kambic Metrology equipment in the UK including climatic chambers, plant growth chambers and calibration baths.
- Rental of temperature and humidity validation equipment.
- Supply and manufacture of thermocouples and other accessories used for validation of autoclaves, ovens, freeze dryers, freezers, fridges, incubators, stability chambers and more.

We are proud to work with many market leading pharmaceutical manufacturers, food manufacturers and medical research facilities.



Service, Calibration & mapping

Experienced engineers providing service on-site or at our facility in Lancashire. Offering a range of UKAS accredited calibrations.



Data Loggers & Thermocouples

A range of equipment to suit all requirements. Expert independent advice is available.



Laboratory & Process Equipment

An exclusive range of specialist, high performance equipment from Kambic Metrology.



Thermal Validation Rental Equipment

Validation equipment for unexpected demands, shut down periods and new plant commissioning

ABOUT DataTrace®



The DataTrace® products are self-contained, wireless, high precision, data loggers that are used in critical manufacturing, quality control and transportation applications.

They are used to measure temperature, humidity and pressure throughout a process or inside a product during manufacturing.

In addition, the DataTrace® data logging systems can be used to validate the proper operation of laboratory or manufacturing equipment either during its installation or validation or for annual re-certifications.

Two logging solutions to suit your application needs:

DataTrace Micropack Radio Frequency (MPRF) Loggers:

DataTrace MPRF Loggers cover temperature, humidity and pressure. These self-contained loggers are capable of transmitting live data and also stores data within the unit for redundancy. They offer real-time data across varied applications.

- Stores up to 16,000 data points dependent on the resolution.
- Wireless range of 100 feet which can be extended using a repeater.
- All units intrinsically safe and constructed of 316 stainless steel and Ultem/PCTFE.
- ISO 17025 accredited, fully traceable calibrations.
- Operational pressure is up to 10 Bar.
- FDA 21 CFR Part 11 Compliant.
- Fast, clean and wire free set-up enhancing your productivity.
- Battery life of 6 months to 1 year dependent on use.
- Compact size for various applications.



DataTrace Micropack III (MPIII) Loggers:

DataTrace MPIII Loggers cover temperature, humidity and pressure. They are miniature in size, store data within the unit for redundancy, making them ideal for many manufacturing processes.

- Stores 16,000 data points at a resolution of 0.001.
- All units intrinsically safe and constructed of 316 stainless steel.
- ISO 17025 accredited, fully traceable calibrations.
- Operational pressure is up to 10 Bar.
- FDA 21 CFR Part 11 Compliant.
- Fast, clean and wire free set-up enhancing your productivity.
- Battery life of 3 to 6 months dependent on use.
- Compact size for various applications.



DataTrace MPRF Loggers:

The MPRF data logger provides accurate data to help you optimise food, pharmaceutical and other manufacturing processes. The closer the sensor is to the product, the more valuable the collected data. If this data is displayed in real-time, control and quality benefit dramatically. Our wireless data loggers easily fits inside a variety of packages, like an ethylene oxide ER pack during sterilisation for example. Since it is wireless and operates a low voltage, it is intrinsically safe for hazardous environments.

- ✓ 8,000 data collection points
- ✓ FDA 21 CFR Part II Compliant
- ✓ Wireless data loggers offering real time data
- ✓ Intrinsically safe
- ✓ Comprehensive, multi-functional software
- ✓ Fully calibrated and traceable

Temperature	Sensor Options	Rigid or bendable in various lengths from 2" to 25". Dual probe options available.
	Operating Temperatures	-80°C to +140°C / -40°C to +400°C. Operation below -40°C requires a special calibration. Thermal pack required over 140°C
	Temperature Accuracy	-80°C to -40°C $\pm 0.3^{\circ}\text{C}$ / -40°C to +140°C: $\pm 0.1^{\circ}\text{C}$ / 140°C to 400°C $\pm 0.5^{\circ}\text{C}$
	Operating Pressure	Up to 10 BAR.
	Physical (Logger Body)	Width: 22mm X Length: 91mm. Weight: 89 grams. 316 stainless steel and ULTEM.
	Calibration	Accredited calibration at 16 points across -40°C to +140°C. Additional point at -80°C is available
	Battery	Type AA Lithium (field-replaceable) Life of 6 months to 1 year dependent on use.
	Monitoring Parameters	8,000 observations. Operator programmable with sample rates from 1 sec. to 10 min.



Humidity	Operating Temperatures	10°C to 85°C. $\pm 0.1^{\circ}\text{C}$ Accuracy.
	Operational Humidity	0 to 100% RH (non-condensing). $\pm 2\%$ RH Accuracy.
	Physical (Logger Body)	Width: 22mm X Length 117mm. Weight 96 grams. 316 stainless steel and ULTEM.
	Calibration	Calibrated at 2 temperature points 25°C and 55°C. 10-12 RH points dependent on the temperature.
	Battery	Type AA Lithium (field-replaceable) Life of 6 months to 1 year dependent on use.
	Monitoring Parameters	4,000 time/temp/humidity and 8,000 time/humidity observations. Operator programmable with sample rates from 1 sec. to 10 min.



Pressure	Operating Temperatures	25°C to 140°C. $\pm 0.25^{\circ}\text{C}$ Accuracy.
	Operational Pressure	0 PSIA (0 BAR) to 72.5 PSIA (5 BAR). ± 0.3 PSIA (± 0.02 BAR).
	Physical (Logger Body)	Width: 22.9mm X Length 120mm. Weight 120 grams. 316 stainless steel and ULTEM or PCTFE.
	Calibration	Calibrated at 3 temperature points 25°C, 121°C and 135°C. 2-6 pressure points dependent on the temperature.
	Battery	Lithium (field-replaceable) Life of 6 months to 1 year dependent on use.
	Monitoring Parameters	4,000 time/pressure and 4,000 time/temp observations. Operator programmable with sample rates from 1 sec. to 10 min.



DataTrace MPIII Loggers:

Controlling a manufacturing process requires accurate monitoring and for that, your sensor must be close to the product being monitored. The ultra-small DataTrace Micropack III (MPIII) Data Loggers have compact bodies meaning that they can easily fit inside containers, cans or pouches during the manufacturing process. The ability to monitor temperature, humidity or pressure with high precision means MPIII Data Loggers are well suited to an array of applications for ensuring product safety and quality.

- ✓ 16,000 data collection points
- ✓ FDA 21 CFR Part II Compliant
- ✓ Self contained wireless data loggers
- ✓ Compact, versatile size
- ✓ Comprehensive, multi-functional software
- ✓ Field replaceable battery

Temperature	Sensor Options	Rigid or bendable in various lengths from 1" to 25". Dual probe options available. Thermistor and RTD sensors dependent on model.
	Operating Temperatures	-20°C to +140°C / -20°C to +400°C. Thermal pack required over +140°C.
	Temperature Accuracy	-20°C to +140°C: $\pm 0.1^{\circ}\text{C}$ / +141°C to +200°C $\pm 0.25^{\circ}\text{C}$ / 201°C to +400°C $\pm 0.5^{\circ}\text{C}$.
	Operating Pressure	Up to 10 BAR.
	Physical (Logger Body)	Width: 18mm X Length: 20mm. Weight 15 grams. 316 stainless steel, Sapphire IR windows.
	Calibration	Accredited calibration at 17 points across -20°C to +140°C.
	Battery	Lithium (field-replaceable).
	Monitoring Parameters	16,000 time/temp observations. Operator programmable with sample rates from 1 sec. to 18 hr.



Humidity	Operating Temperatures	10°C to 85°C. $\pm 0.1^{\circ}\text{C}$ Accuracy.
	Operational Humidity	0 to 100% RH (non-condensing). $\pm 2\%$ RH Accuracy.
	Physical (Logger Body)	Width: 18mm X Length: 66mm. Weight 48 grams. 316 stainless steel, Sapphire IR windows.
	Calibration	Calibrated at 2 temperature points 25°C and 55°C. 10-12 RH points dependent on the temperature.
	Battery	Lithium (field-replaceable).
	Monitoring Parameters	8,000 time/humidity and 8,000 time/temp observations. Operator programmable with sample rates from 1 sec. to 18 hr.



Pressure	Operating Temperatures	25°C to 140°C. $\pm 0.25^{\circ}\text{C}$ Accuracy.
	Operational Pressure	0 PSIA (0 BAR) to 72.5 PSIA (5 BAR). ± 0.45 PSIA (± 0.03 BAR).
	Physical (Logger Body)	Width: 18mm X Length: 48mm. Weight 55 grams. 316 stainless steel, sapphire IR windows.
	Calibration	Calibrated at 3 temperature points 25°C, 121°C and 135°C. 2-6 pressure points dependent on the temperature.
	Battery	Lithium (field-replaceable)
	Monitoring Parameters	8,000 time/pressure and 8,000 time/temp observations. Operator programmable with sample rates from 1 sec. to 18 hr.



Software designed to help you control your process, your budget and your time.

At the heart of the DataTrace® MPRF and MPIII process monitoring solution is the intuitive and highly secure, FDA 21 CFR Part 11 compliant DT Pro software:

- Optimise productivity with automatic downloads and multi functional graphs options.
- Graphical and intuitive interface allowing for greater understanding, ease-of-use and efficiency.
- Enjoy enhanced security features such as data encryption, password protected access, electronic signatures and automatic documentation for audit trails.
- Synchronise multiple loggers (any combination of logger types) to the same program.
- Comprehensive alarm configuration and control, including high or low types, fault detection, calibration due warnings, alarm reporting, alarm acknowledgement, escalation and commenting.
- Easy installation validation with new system configuration reports. IQ/OQ/PQ Documents and a Validation Manual are also available.

DT Pro Interface Host:

- Designed for use with the MPRF and MPIII data loggers.
- Built in Antenna for RF communication, 100 feet line of sight transmitting. Repeater units available for extended range.
- Compact, lightweight design.
- High speed, single program/download.
- Wireless connection can receive up to 255 MPRF units transmitting data.
- USB standard PC connection with optional Ethernet.



If you have any questions relating to the DataTrace range then please do not hesitate to contact a member of our technical engineering team who will happy to help you with the right solution for your needs.



Independent Technical Sales

Our sales team are always on hand to offer expert advice and technical support. Our engineers have experience working with a range of clients on various projects. We can help you to select the right equipment to suit your application. We aim to deliver quotations for standard products within 1 business day.

Our team are happy to discuss all the available options and will ensure a quotation is tailored to your technical specification.



After Sales Care

Customer service is important to us, it is a fundamental part of our ethos and has acted as the driving force behind many of our commercial decisions. Servicing an array of customers from small businesses through to multi-national organisations, we always endeavour to offer consistently high levels of service.

Our Service department is available to offer first class after sales care. Our engineers are trained and supported by the manufacturer to provide help and assistance where required. We can discuss training and service options to suit your business needs and requirements.



Exceptional Standards

Our background is within the pharmaceutical and Biotechnology sectors where we are practised to the high standards expected from world leaders in this field. We have adopted the same high standards across our business. Our in-house laboratory is accredited to the internationally recognised ISO/IEC 17025:2005. Our accreditation is a representation of our ability to offer complete quality assurance.





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