DWYEROMEGA™



Measurement and Monitoring Solutions for Insights Into Your Application

Featured Brands Portfolio

Helping You Get Insight Into Your Application

When you manage a process, obvious threats that can be seen on the surface are only part of the picture. At DwyerOmega, we specialize in measurement instrumentation and solutions that enable our clients to clearly see and monitor conditions that are otherwise invisible and pose a hidden threat.

Using our products, customers save money each year through increased energy efficiency in their processes and reduced process disruptions.

Saving Energy.
High-quality gas and humidity control products for energy-efficient equipment operation.

Protecting Processes.
Fast responding transmitters and gas analyzers for local online installations protect people and capital investment. SIL 2 certified.

Monitoring Environments.
Continuous online monitoring with best in class humidity, temperature or gas instruments.

Controlling Quality.
Reliable, high-precision industry-best measurement instruments for consistent and optimal product finish.

Complying with Regulations.
Measurement solutions meeting the stringent requirements set by regulatory bodies.

Featured Brands

MICHELL Instruments
FCI FLUID COMPONENTS INTERNATIONAL LLC
rotronic MEASUREMENT SOLUTIONS
Sensoscientific
NITRON Gas Measurement
LDetek
SST
Analytical Industries Inc
DYNAMENT INFRARED GAS SENSORS
isensix
sensore

Discover all DwyerOmega Brands
Brand Introduction | DwyerOmega

We Understand Your Needs

Our proprietary humidity and gas measurement technologies measure to parts per billion, allowing unique insights into processes that help our customers innovate as well as improve processes in demanding applications. Our products enable safer conditions for people and processes, maximize energy efficiency, improve product quality, and ensure ongoing compliance with global standards.

Industries We Serve

- Additive manufacturing
- Battery manufacturing
- Combustion efficiency
- Compressed air
- Cryogenic air separation
- Food & beverage
- HVAC & building automation
- Hydrogen & syngas
- Life Sciences & pharma
- Medical
- Metallurgy
- Meteorology
- Natural gas
- Petrochemical
- Power generation
- Semiconductor & electronics
- Transportation

Services We Offer

Calibration
- Humidity & temperature calibration at a DwyerOmega laboratory
- Dew-Point calibration at a DwyerOmega laboratory
- On-site humidity calibration
- Self-calibration

Lifecycle & Maintenance
- Esidew transmitter exchange
- Maintenance agreements
- Serviceable parts for hazardous areas
- Rental services from Michell and LDetek

GxP Services
- Validation
- Mapping
- Other services for GxP regulated applications

Engineering Services
- System engineering services
- Product customization
- Project planning



Trace Moisture and Dew-Point Measurement and Analysis

Trace moisture measurement is essential for ensuring quality, safety and efficiency in thousands of applications across a wide range of industries. Water vapour is a serious contaminant in many processes, having a detrimental effect on the quality and integrity of final products. Water dew-point is a specific category of moisture measurement and is the most common parameter selected when condensation or ice formation is to be avoided. We offer a wide range of high-precision Michell trace moisture analyzers, water dew-point transmitters, chilled mirror reference hygrometers and process moisture analyzers which ensure peace of mind to thousands of customers around the world.

- Transmitters
- Portable hygrometers
- Chilled mirror hygrometers
- Process moisture analyzers
- Moisture in liquid analyzers
- Dew-Point analyzers



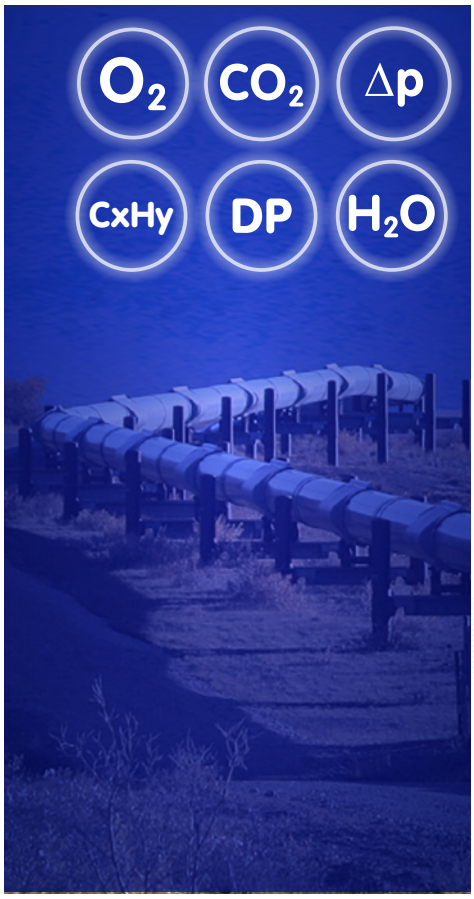
Instrinsically safe dew-point transmitter – Michell Easidew I.S.



Explosion proof moisture transmitter – Michell Easidew PRO XP



Chilled mirror hygrometer – Michell S8000 Remote



Process Analyzers for Moisture and Hydrocarbon Dew-Point Measurement

Our process analyzers for moisture and hydrocarbon dewpoint are designed for demanding applications where hydrocarbons like natural gas are extracted, processed, transported and stored. Our success in thousands of worldwide installations is based on DwyerOmega's unique selection of moisture measurement technologies that enable our customers to measure always using the best analyzer for their specific application and budget. The fundamental chilled-mirror-based hydrocarbon dew-point analyzers and dew-point testers provide essential quality measurements for natural gas at custody transfer helping pipeline operators to avoid costly and reputation-damaging custody transfer disputes. All process analyzers are globally certified for use in hazardous areas (ATEX, IECEx, cQPCus) and will be delivered with either standard or customized sampling systems.

- TDLAS fast response moisture analyzers for changing gas streams
- Quartz crystal microbalance, ppb-level moisture analyzers
- Metal oxide sensor hygrometers
- Online and portable hydrocarbon dew-point analyzers



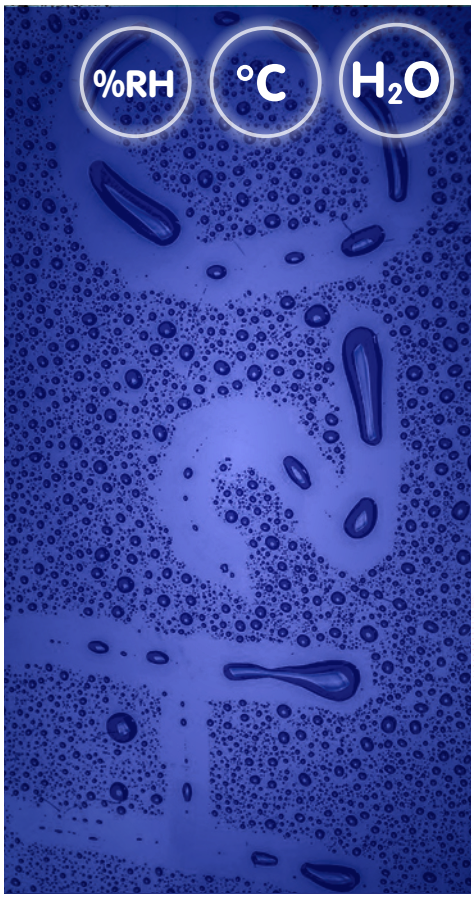
Process moisture analyzer – Michell Promet I.S



Process moisture analyzer – Michell QMA601



Portable dew-point tester – Michell CDP301



Humidity and Temperature Measurement

Relative humidity is a measure of the amount of water vapor present and together with the temperature measurement is vital to ensure product quality and process safety in many industries and applications. Our precision humidity and temperature products became an industry benchmark for monitoring and control of environmental and process conditions across the most demanding applications including explosive atmospheres as well as in the food and pharma industry, where the measurements are strictly regulated to comply with the FDA and GxP.
At the heart of every relative humidity product made in our swiss factory is our high-precision, ultra-stable capacitive sensor. Combined with the temperature measurement most of our humidity instruments can also display a range of calculated humidity values such as dew-point or mixing ratio (g/kg).

- Probes & sensors
- Transmitters & data loggers
- Handheld instruments
- Humidity and temperature calibration systems
- Real-Time online monitoring systems



Humidity generator – Rotronic HygroGen2-S



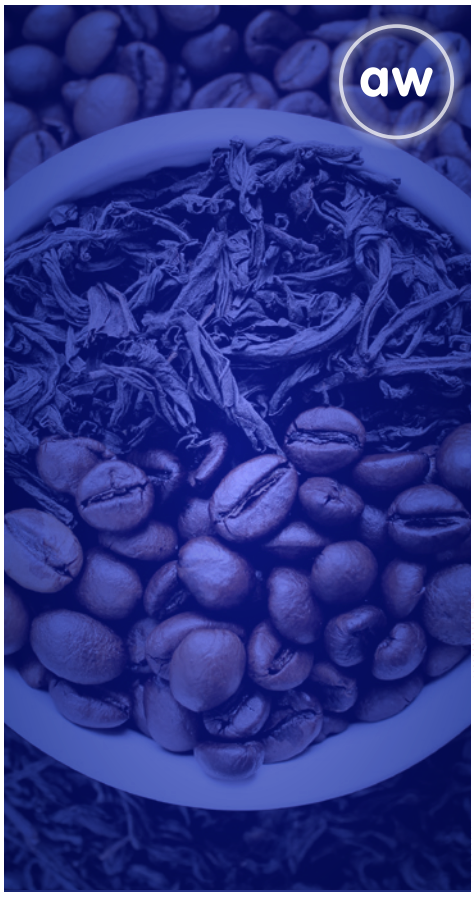
Industrial humidity probe – Rotronic HC2-SM



Standard humidity probe – Rotronic HC2-S

Humidity and temperature transmitter – Rotronic HF5A





Water Activity Measurement

The measurement of the 'free' or available water in any product affects product quality and shelf-life. This is particularly crucial in the pharmaceutical, food and cosmetics industries which are highly regulated. If there is too much water in a product, there is a risk of microbial growth and water migration. This can lead to clumping, changes in consistency or taste, diminution of nutrients or effect product value, as well as reduced storage and shelf-life. We offer a wide range of instruments for the measurement of water activity (AW). Small and large sample holders and liners are available for all product types including expensive medicinal liquids. Our water activity analyzers can produce accurate and repeatable measurements of aw together with temperature in typically less than five minutes for most product samples, the equilibrium method is also available. Insertion probes can be used for bagged products.

- High-end temperature-stabilized analyzer
- Touchscreen analyzer with remote access
- Bluetooth measurement heads
- AW probes



Bluetooth measurement head – Rotronic AWEasy



Benchtop laboratory device – Rotronic HygroLab



Water activity meter – Rotronic AWTherm



Real-Time Monitoring Solutions – Flexible and Configurable Environmental Monitoring

DwyerOmega Real-time monitoring systems (RMS) are designed to assist customers in achieving compliance in regulated applications. Monitoring anything from temperature, relative humidity and other environmental parameters that DwyerOmega can offer. The DwyerOmega RMS offers a range of installation possibilities with both public and exclusive SaaS solutions, on-premise or directly with a server provided and monitored by DwyerOmega. Our systems ensure data integrity and are FDA 21 CFR Part 11 and EU Annex 11 compliant.

DwyerOmega Monitoring Brands:

- Isensix
- Rotronic
- SensoScientific



Datalogger – Isensix Guardian | *Rotronic RMS Hard- and Software* | *Datalogger & Probe – SensoScientific*



Sensors

DwyerOmega offers a wide range of sensors and technologies to suit various applications in environmental, energy, HVAC, healthcare & medical, pharmaceutical, cosmetics & food, beverage, diving, agtech, industrial and transportation markets. Our robust and versatile sensors are designed and manufactured to provide the highest quality, performance and reliability. From compact galvanic electrochemical, nondispersive infrared, and photoluminescence optical sensors to robust stainless steel zirconia and liquid level sensors, we have a solution to meet your requirements. With millions of sensors installed throughout the world in a wide range of markets measuring environmental paramaters and monitoring processes that protect people and property, ensure compliance to standards, and optimize and maximize profitability, DwyerOmega is uniquely positioned to support your sensing needs.

- Industrial oxygen sensors
- Industrial safety sensors
- Liquid level sensors
- Medical & diving sensors
- Refrigerant A2L sensors



Galvanic electrochemical



Nondispersive infrared sensors – Dynament Platinum Series | *Optical O_2 sensors – SST LuminOX* | *Galvanic electrochemical sensors – All* | *Liquid level switch – SST Optomax* | *Zirconium Dioxide O_2 sensor – SST Screwfit*



Oxygen Measurement

Precise oxygen measurement is critical for processes in many industries, ranging from the purity of industrial gases and protecting against leaks in glove boxes to monitoring flue gas for optimum combustion efficiency. The requirements of various applications are very different, but the key driving factors are the same: safety, quality, efficiency or legislation. Therefore, we offer a range of high purity oxygen analyzers and oxygen measurement devices to ensure that you can always select the best technology for your application.

- (OEM) oxygen analyzers
- Oxygen transmitters
- Combustion control analyzers
- Trace & purity analyzers



O_2 Transmitter for combustion – OXY-Flex Series



Portable O_2 analyzer – All GPR-1200/3500



O_2 analyzer – Michell XTP601-EX



Compact oxygen transmitter – SenzTx



Hydrogen, Binary, Toxic & Flammable Gases

Our range of thermal, conductivity-based gas analyzers measure and monitor hydrogen and other binary gas streams. The XTC601-EX from Michell Instruments is ideal for measurements in safety critical process applications and meets the requirements of IEC61508 SIL2. Ldetek offers thermal conductivity-based gas analyzers to measure and monitor binary gas streams. The technology can also monitor one component in a more complex gas mixture when the background gases have the same ratio to each other or have similar thermal conductivity values. The product offering utilizes a variety of sensing technologies including non-dispersive infrared, catalytic bead, and electrochemical sensing methods to ensure the best fit for the application including non-dispersive infrared, catalytic bead, and electrochemical sensing methods.

- H_2 & binary gas analyzers
- H_2S analyzers
- Toxic, oxygen and flammable gas detectors



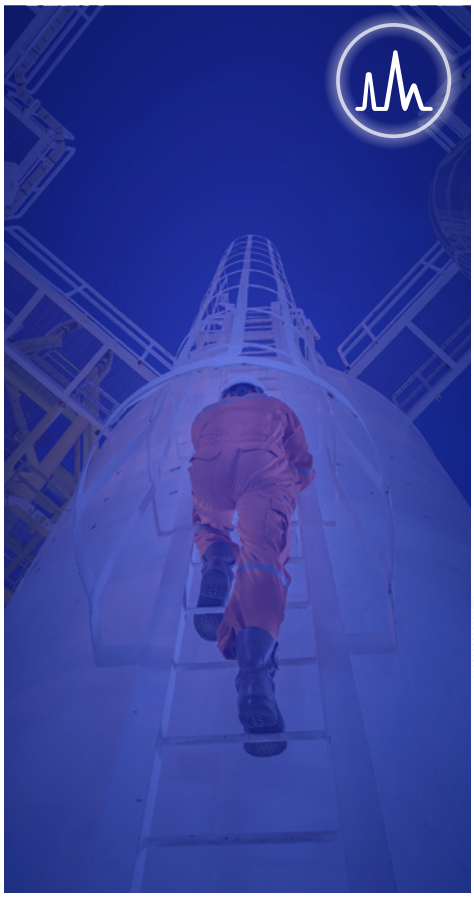
Binary gas analyzer – LDetek LD8000-TCD



Thermal conductivity analyzer – Michell XTC501



O_2 analyzer – Michell XTC 601-EX



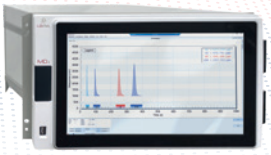
Gas Chromatographs and Online Analysers for Trace Impurity Measurements

Our LD800x online gas analyzers help to measure trace impurities in applications where gas purity must be controlled. The new modular, plug and play, MultiDetek series industrial gas chromatographs allow the detection of multiple impurities using a selection of our cutting-edge sensing technologies as listed below. All detectors can be tailored to the application and combined in one process GC incorporating the functionality of two GCs into one instrument and enabling measurements in a wide range of background gases including helium, argon, nitrogen, oxygen and hydrogen or carbon dioxide. 19" cabinet packaged system solutions with sample conditioning and latest generation of indispensable accessories for noble gas purification, gas blending and multi-gas stream selection are also available. Available detection technologies include:

- Plasma emission detector (PED)
- Flame ionisation detector (FID)
- Thermal conductivity detector (TCD)
- Quartz crystal microbalance (QCM)
- Solid state electrolyte (SSE)



Integrated gas chromatograph – LDetek HyDetek



Modular process GC – LDetek MultiDetek3



Gas analyzer for impurities in He and Ar – LDetek LD8000 MultiGas



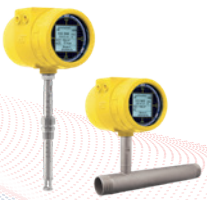
Thermal Mass Flow Meters, Flow and Level Switches

Accurate air/gas flow measurement and air/gas/liquid flow and level switching in demanding industries are essential for process efficiency, plant safety, product quality, environmental compliance and energy management. These patented thermal flow instruments feature a no-moving parts design, providing direct mass measurement with a single process penetration. Their all-in-one design is superior to complex inferred mass flow techniques requiring extra flow, temperature and density calculation devices. Requiring virtually no maintenance over a long life, they provide a lowest installed and lifecycle cost fluid measurement and control solution. They are calibrated on NIST certified laboratory equipment and feature SIL ratings with full instrument third party, independently certified global safety agency approvals for peace of mind in hazardous areas.

- Air/Gas Mass Flow Meters
- Air/Gas/Liquid Flow Switches
- Large Duct/CEMS Measurement
- Analyzer Flow Switch/Monitors
- Gas/liquid level switches



Air/gas flow meters with built-in flow conditioning – FCI ST75 Series



Thermal mass flow meter – FCI ST100A Series



Multipoint thermal mass flow meter – FCI MT100

Air/gas/liquid flow and level switch – FCI FLT93 Series



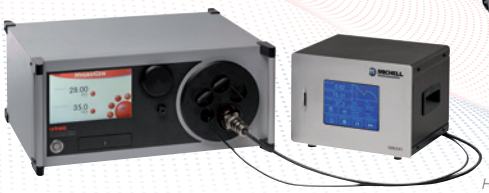
Analyzer flow switch monitor – FCI FS10A



Calibration Services

Calibration of humidity, temperature and trace moisture measurement equipment is crucial to maintain confidence in the readings essential for monitoring your processes and ensuring safe and efficient operation of your business. Based on the unparalleled history of our leading humidity calibration equipment manufacturers Michell and Rotronic, self-governance and our technical capabilities with a full line of reference measurement instruments we provide the most comprehensive humidity, and dew-point calibration offering on the market today.

- Humidity & temperature calibration at a DwyerOmega laboratory
- Dew-Point calibration at a DwyerOmega laboratory
- On-site Humidity & temperature calibration
- Self calibration equipment



Humidity generator – Rotronic HygroGen2-S, Chilled mirror – Michell S8000 Remote



Humidity validator – Rotronic HygroCal 100 Advanced, Chilled mirror hygrometer – Michell Optidew 401, Handheld device – Rotronic HP32

DWYEROMEGA™

Improving the world, one measurement at a time™

ProcessSensing.com **dwyeromega.com**

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