

**GLOTEX**  
Global Technology Expert



**Glotech Solutions Pvt. Ltd.**

2 Regent Avenue, Diwalipura Vasna Road,  
Vadodara 390007, Gujarat, India  
M: +91 79848 44768 T: +91 265 3500 103 / 104 / 117 / 118  
E: sales@glotechinc.com  
W: www.glotechinc.com

**Glotech Inc.**

78 Samantha Drive, Coram,  
NY 11727, USA  
C: +1 631 404 9027 T: 1 (631) 846 9165  
E: sales@glotechinc.com  
W: www.glotechinc.com

# ABOUT GLOTEX

Glutex is in the business of distribution, integration, calibration & services of wide range of analytical instrumentation products. Glutex works with worlds' leading manufacturers to offer best analytical solutions covering wide range of applications and industries. Glutex team has over 140 years of combined experiences in analytical instrumentation sales, support, design, manufacturing, engineering, integration, calibration and site service. Glutex customers' includes fortune 500 companies, all major end users, OEMs and analytical packages suppliers in India.

## ANALYTICAL & INTEGRATION SOLUTIONS WE PROVIDE

- Water, Moisture & Hydrocarbon Dew Point Humidity Analyzers
- Trace & Percent Oxygen Analyzers
- Hydrogen, Trace & Percent Gas Analyzers, H<sub>2</sub>S, Total Sulphur & Elemental Analyzers
- BTU/ Wobbe Index/ Heating Value Analyzers
- Process Gas Chromatographs, Natural Gas Chromatographs
- Water Quality, Liquid, Oil in Water & Turbidity Analyzers
- Steam & Water Analysis Systems (SWAS), Sample Coolers, Thermal Shut Off Valves
- Analyzers, Shelters, HVACs, Air Conditioner Chemical Filters, Chillers & Integration
- Sample System Components, Fixed & Retractable Sample Probes, LNG Sample Probes, Vaporizers
- Sourcing of Engineering & Instrumentation, Products Parts & Consumables
- Installations, Commissioning & Maintenance Contracts, Calibration Services
- Water Cut & Multi Phase Level Meters

## INDUSTRIES WE SERVE

- ◆ Oil & Gas
- ◆ Chemical
- ◆ Fertilizer
- ◆ Power
- ◆ Hydrogen
- ◆ Industrial Gas
- ◆ Air Separation
- ◆ Semi Conductor
- ◆ Battery & Clean Room Manufacturing
- ◆ Pharmaceutical
- ◆ Food & Dairy
- ◆ Water Treatment
- ◆ Automobile
- ◆ Metals
- ◆ Textile
- ◆ Electrical Sub Station
- ◆ OEM

## CERTIFICATES WE HAVE



#startupindia

**MSME**  
सूक्ष्म, लघु एवं मध्यम उद्यम  
MICRO, SMALL & MEDIUM ENTERPRISES

## WHY CHOOSE GLOTEX

- ◆ One Stop Solutions for Analytical Instrumentation
- ◆ Management has over 140+ years of combined experiences in Analytical Instrumentation, Sales, Design & Engineering, Manufacturing, Integration & Site Services.
- ◆ State of art calibration facility in India for dewpoint, moisture & humidity sensors

We are  
Since  
2017

In 7+  
Countries  
& Growing

Across  
All Over  
India

Serving  
1000+ Clients  
& Growing



## OxyG Trace & Percent Oxygen Analyzer- Online & Portable Configuration

### Applications

- ◆ Air Separation & Industrial Gas Plants
- ◆ Inert Glove Box Systems
- ◆ Nitrogen, Oxygen & PSA Generators
- ◆ Medical Grade Oxygen Concentrators
- ◆ Industrial Process Plants
- ◆ Air Dryers



Wall Mount



Panel Mount

### Features

- ◆ Precision Electrochemical Sensor Technology
- ◆ Intuitive User-Friendly Interface
- ◆ Trace, Percent or Purity Analysis Ranges
- ◆ Auto-Ranging or Manual Range Mode
- ◆ Two Adjustable Alarm Contacts w/ delay mode
- ◆ ¼" DIN Panel or Wall Mount Options
- ◆ Measure Oxygen from 0.01ppm to 100%



Portable



Flameproof



H<sub>6</sub> KF-40  
Sensor Housing



H<sub>3</sub> Flow Through  
Sensor Housing



Oxygen Sensor



## Model Optical OxyDG Dissolved Oxygen Analyzer for Water Application

### Features

- ◆ Ideal for Dissolved Oxygen
- ◆ Portable & Online Configurations
- ◆ Simple in the field Sulfite Zero Calibration
- ◆ 0.0-2,000 µg/L measurement range
- ◆ 0.1 µg/L Limit of Detection (LOD)
- ◆ Built-in temperature and pressure sensors
- ◆ Data Logger + Display Panel
- ◆ Fully Integrated Zero + Slope Calibration Interface
- ◆ Integrated 4-20mA + RS-485 Output
- ◆ 1 x Contact Alarm Relay and USB Data Logger



Optical Dissolved  
Oxygen Analyzer Sensor



Display Unit



## Model Optical OxyG Oxygen Analyzer for Gas Application

### Features

- ◆ High accuracy measurement of oxygen levels from 100 ppm upto 100% Oxygen
- ◆ Advanced photonics technology producing luminescence quenching in the near-infrared range of the electromagnetic spectrum
- ◆ Range from 0 to 100 ppm upto 0-100% for Oxygen

Measurement PPM Oxygen:	0.5	1.0	4.0	10	50	100	1000
Sample Pressure Barg:	120	60	34	15	3	1	0

- ◆ No background gas effect for CH<sub>4</sub>, CO<sub>2</sub>, H<sub>2</sub>S, and Moisture
- ◆ Can be installed directly in the process pipeline at pipeline pressure
- ◆ Rugged construction and compact design for reliable operation in harsh environments
- ◆ Flexible installation options to suit a variety of industrial applications
- ◆ Pressure and temperature compensation available

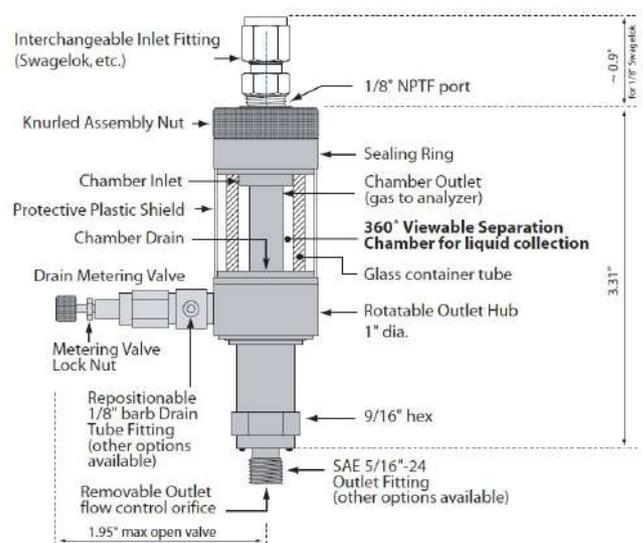


## Glutex Mini Demister - Liquid Knock-Out Device

Glutex Mini Demister is a Liquid knock-out to separate liquids from gases. It increases speed of response, accuracy, reliability & sensor life.

### Features

- ◆ 360° viewing of sample
- ◆ Liquids visible before compromising analyzer
- ◆ Convenient rotatable drain valve and tube
- ◆ Works with any gas analyzer
- ◆ Seal integrity for even the most demanding measurement of trace moisture
- ◆ Stainless steel construction with Viton seals
- ◆ High Pressure Glass tube (425 psi rating)
- ◆ Protective plastic shield
- ◆ Optional internal flow control orifice
- ◆ Variety of available fittings swageable, SAE, NPT
- ◆ Superior to coalescing filters: no absorbent materials - no future out-gassing
- ◆ Sized perfectly for Portable Analyzers
- ◆ Ease of Service & Maintenance



### Application

Wide range of gas analysis instruments and systems for Stack, Process, Industrial Gas, Ambient, Furnace Gas / Heat Treating, Air Dryers, Pharmaceutical, Aerospace and Medical applications.



## DewG Dewpoint & Moisture Analyzer - Online & Portable Configuration

### Features

- ◆ Different Sensors & Range Options
- ◆ Cost Effective
- ◆ Traceable Multi-Points Calibration
- ◆ Different Configuration / Housing / Mounting / Data Logging Options
- ◆ Traceable Multipoint Calibration



### Digital Indicator

#### Features

- ◆ Multipurpose programmable display unit
- ◆ 4-20mA Analog input can be display 0...9999 counts
- ◆ Repeated isolated output 4-20mA, Relays output
- ◆ AC / DC power
- ◆ Weather Proof IP65 housing option
- ◆ Loop Powered option
- ◆ 4 inch display option



### Single Stage Pressure Regulator

#### Features

- ◆ Pressure delivery regulator
- ◆ 6 ports flexible configuration
- ◆ Inbuilt Inlet filter
- ◆ Options for body and bonnet: SS316, Brass Chrome plated, Inconel



#### Application

- ◆ Component testing
- ◆ Calibration system
- ◆ Laboratory pressure control
- ◆ Sampling system
- ◆ Service & test equipment



## The Dewpoint, Moisture, Humidity, Oxygen & Hydrogen Measurements Specialist

Glutex as a local leader in India offers the best experience to supply and support for Dewpoint, Moisture, Humidity, Oxygen & Hydrogen Measurements for your processes.

With thousands of sensors already supplied backed by applications and engineering expertise along with traceable calibrations facility for Dewpoint, moisture & humidity sensors has made Glutex a leader for above measurements.

- Impedance Dewpoint Sensors for Gas & Liquid
- Capacitance Dewpoint Sensors for Gases
- QCMB Moisture Sensors for Gases
- TDLAS Laser Moisture Sensors for Gases
- Portable Dewpoint & Moisture Sensors for Gases
- Portable Humidity Sensors
- Chilled Mirror Sensors for Hydrocarbon Dewpoint
- Relative Humidity Sensors for Gases
- Humidity Validator
- Gas Blender
- Chilled Mirror Sensors for Water Dewpoint
- Chilled Mirror with Remote Sensors for Water Dewpoint
- Paramagnetic & Zirconia Oxygen Sensors
- Thermal Conductivity Sensors for Binary & Hydrogen



## Relative Humidity, Dewpoint, Temperature & Water Activity Meters



Glotex offers continuous and configurable environmental monitoring systems designed according to the GAMP5 recommendations. These are continuous multiple parameters monitoring systems allows users to monitor any critical parameter such as temperature, relative humidity, differential pressure, carbon dioxide (CO<sub>2</sub>), oxygen (O<sub>2</sub>), particles etc. from anywhere using an on-premise or cloud (SaaS) solution. Existing devices can be integrated via analogue or MODBUS TCP signals. For all GxP applications within regulated industries, RMS will help fulfil the FDA 21 CFR Part 11 and EU Annex 11 regulations.

### Key features:

- Easy and simple user interface
- Data Integrity (dataloggers with backup batteries, external power and PoE functionality)
- Data analysis function
- Alarming via E-Mail, SMS and telephone call

In pharmaceutical industry, above monitoring systems can be implemented at any stage of a drugs life to ensure the cold chain monitoring i.e. temperature controlled supply chain for drugs. Some of the applications are:

- |  |                   |                                       |                     |
|--|-------------------|---------------------------------------|---------------------|
| • Manufacturing: GMP                           | • Laboratory: GLP | • Storage: GSP                        | • Distribution: GDP |
| • Sensors                                      |                   | • Temperature Monitoring of Medicines |                     |
| • Hardware & Recorder Products                 |                   | • Biocontrol of Organism              |                     |
| • Mini Datalogger, Data Acquisition & Software |                   | • Data Loggers & Input Modules        |                     |

### INDUSTRIES SERVED

AGROCHEMICAL    CHEMICAL    ELECTRONICS    AUTOMOTIVE    AEROSPACE    INTERNET OF THINGS  
 CERAMIC    BRICKS    HVAC    FOOD    TOBACO    MEDICAL    METROLOGICAL    PHARMACEUTICAL  
 CONSTRUCTION MAERIALS

### BTU / Wobbe Index / Heating Value / CARI / Natural Gas Analysis

Glotex has been supplying world-class on-line analyzers for demanding process applications and fit-for-purpose solutions for oil and gas production, refining, petrochemical, power, steel, food, pharma and other industries.

- BTU/ Wobbe Index/ Heating Value Analyzer for Natural Gas / Fuel Gas / Flare Gas Combustion Measuring
- Tunable Diode Laser (TDL) Analyzer for Natural Gas Analysis to measure H<sub>2</sub>S / CO<sub>2</sub> / H<sub>2</sub>O / CH<sub>4</sub> / O<sub>2</sub>

### Pressure Regulators

Glotex offers wide range of pressure for port sizes from 1/8" to 4" for use on critical high-pressure control systems such as wellhead control panels, gas analyser systems, hyperbaric diving systems and the latest hydrogen fuel cell technology.

#### Options

**Single & Two Stage, Low & High Pressure, Low & High Flow, Heated**

**Back Pressure    Divine    Hydrogen & Fuel Cell    Subsea    Hydraulic    Valves**

## Moisture and Oxygen Measurement Products and Services

### Humidity and Oxygen Measurement Products and Services

Edgetech Instruments Inc., located in Massachusetts, USA, with over 60 years' of experience in the design and manufacturing of a comprehensive portfolio of dew/frost point, absolute and relative humidity moisture sensors with a complimentary line of analysis instrumentation for Oxygen and other parameters, backed by ISO 9001 manufacturing and ISO 17025 calibration facility. Edgetech is the inventor of chilled mirror technology which is a primary measurement method for humidity / dewpoint.



**DewTrak II**  
Chilled Mirror Transmitter



**DewMaster**  
Chilled Mirror Hygrometer



**RH CAL**  
Portable Calibrator



**PPM1**  
Moisture Analyzer



**PPM2 Portable**  
Moisture Analyzer



**PDM75-X3 Portable**  
Chilled Mirror Hygrometer



**DewTech 390**  
Chilled Mirror Hygrometer



**Chilled Mirror**  
Dewpoint Sensor



**Polymer RH**  
Sensor



**Phosphorous Pentoxide**  
Moisture Sensor

## Trace & Percent Oxygen Analyzers



**Portable Configuration**



**Inline Flow Through**  
Configuration



**KF40**

## Water Activity Meter AW-1s/AW-Multi

Over 100 years, Sibata Scientific Technology, Japan has continued to develop scientific and environmental monitoring equipments that supports research and development, environmental monitoring and measurement in the fields of occupational health, air environment and water contamination, etc.



**Electrostatic Type**



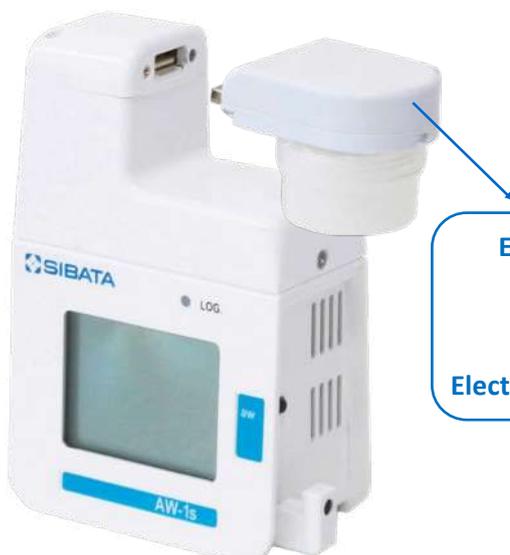
**Electrical Resistance Type**

### Features

- Compact and lightweight ideal for portability
- Capable of measuring both powders and liquids
- Measures by inserting a sample container (sold separately) equipped with sensor into the main unit
- Equipped with Stability Mode (standard measurement mode) and Quick Mode (fast measurement mode)
- Supports 1-point to 3-point calibration
- Stores up to 99 measurements in the main unit
- PC-exclusive software enables mode settings, data logging, and calibration

### Applications

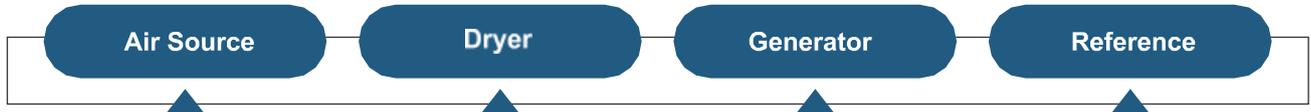
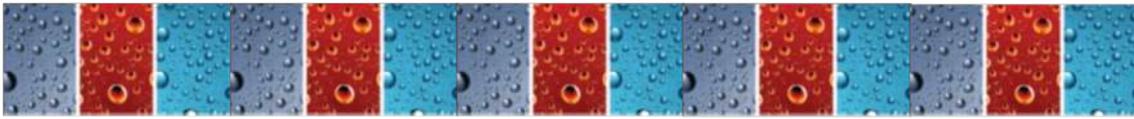
- Food, pharmaceutical, cosmetic, and agricultural fertilizer industries
- Educational and research institutions, as well as testing and analysis agencies
- New product development and prototype evaluation



**Electrostatic Type**  
OR  
**Electrical Resistance Type**



## Glutex Calibration Services for Humidity, Dewpoint & Moisture Sensors



Glutex as a local leader in India offers the best experience to supply and support for dewpoint & moisture measurements solutions for your processes.

Regular calibration of all process instruments is vitally important to ensure the confidence while measuring critical process parameters. In order to minimize uncertainty and have confidence in measurements made with the instrument, it is important to have the quality assurance of a regular, accredited calibration procedure.

Glutex is pleased to offer the availability of multipoint re-calibration facility for dewpoint & moisture sensors at Vadodara, Gujarat, India works. This facility would offer:

- ◆ Functional testing
- ◆ Calibration
- ◆ Instrument adjustment as needed
- ◆ Replacement of a sensor guard filter as needed
- ◆ Calibration certificate and service report

In addition to above, Glutex also offers other options like:

- ◆ On-site Calibration
- ◆ Sensor Exchange Program
- ◆ Sensor Replacement



Humidity calibrations involve generating a stable level of humidity in a sample gas, measuring this with a suitable fundamental reference instrument and the instrument under calibration, and making a comparison of the readings.

Glutex Dewpoint Calibration System is capable of producing a flow of Nitrogen or air at a pre-specified range of dew-point temperatures from a minimum of -80C to a maximum of +30C. Our facility also offers RH Calibration covering 10% RH to 90% RH range.

### Glutex Calibration System comprises of

- ◆ Oil Free Compressor with Buffer Tank
- ◆ Nitrogen Generator with Buffer Tank
- ◆ Pressure Swing Dryer & Molecular Sieve Dryer
- ◆ Dewpoint Generator
- ◆ Reference Hygrometer (Primary Chilled Mirror)
- ◆ Calibration Manifold

Glutex representative can assist further to accommodate your calibration service request.

**Analytical Systems, Components & Integrations Capabilities**

GLOTUS builds analyzers panels, shelters and sample conditioning systems with the highest quality materials and workmanships. Selection of right analytical instruments with correctly designed sampling systems and the environment in which they operate are critical for efficient and fail safe process monitoring. Some instruments would work with little or no protection in the industrial environment. However many require a controlled environment that can only be provided by a properly engineered and constructed analyzer shelter.

GLOTUS brings in over 70 years of combined experiences in analytical sales, support, design, engineering, manufacturing and integration to cater your critical process monitoring needs of wide range of analytical applications.



**Analytical Panels for Hydrocarbons and Stack Monitoring Processes**



**Analytical Panels for Steam & Water Analysis Processes**

**Flameproof Sample Chiller**



**Sample Probes & Sample Conditioning Components**



**Analyzer Shelter for Natural Gas Processing Plant**



**Analyzer Shelter for Natural Gas Processing Plant**



**Shelter for Petrochemical Project**



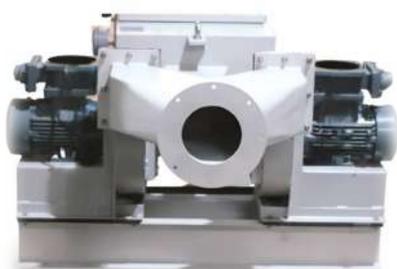
**Shelter With HVAC for Fertilizer Plant**



**SWAS Racks for Power Plant**

## Chemical Filter

Chemical filters are a means of trapping gaseous air pollutants such as VOCs to improve indoor air quality for analyzer house / shelter. Options are available for different materials and hazardous area classifications.



**Painted CRCA Housing**



**Stainless Steel Housing**

## Heating, Ventilation and Air Conditioning (HVAC) Unit

Heating, Ventilation and Air Conditioning (HVAC) units are used for process analyzer shelters and analyzer houses. HVAC units provide positive pressure air into the shelters. It can keep the room's air pressure higher than the outside air to stop the outside dangerous air entering into the room keeping the safe working in inside the room.

HVAC units are designed to provide cooling, heating, pressurization and fresh air purging in one assembly. They are typically furnished for instrument control rooms, laboratories, measuring rooms and analyzer shelters etc. in safe or hazardous locations. Materials, filtration, alarms, controls and redundancy functions are available to meet customers' requirements.



**Painted CRCA Housing  
HVAC, ATEX Option**



**Stainless Steel Housing**



**Explosion AC  
CRCA & Stainless Steel Housing,  
ATEX Option**

## Oxygen Analyzers

Southland Sensing Ltd. is a process instrumentation and analytical technology company specializing in advanced Electrochemical Oxygen Sensor technology and custom engineered systems since 2010. Southland Sensing delivers innovative Electrochemical Trace and Percent Oxygen measurement solutions to some of the leading companies around the world. Precision Electrochemical Oxygen sensor technology coupled with unmatched customer service and application support provide substantial advantages to assist the customers by improving quality, reducing ownership costs and meeting environmental, health and safety regulatory requirements.

Southland Sensing's industrial sensors' cross reference charts for precision electrochemical oxygen sensors shows the "direct fit and function" replacement for various oxygen sensors organized by other manufacturers at lower purchase cost.



Wall Mount



Panel Mount



In-line



OEM



Portable



Oxygen Sensor



Hazardous Area Configuration



Flow Through Sensor Holder



KF-40 Flange Sensor Holder



0-1ppm Options - Online & Portable

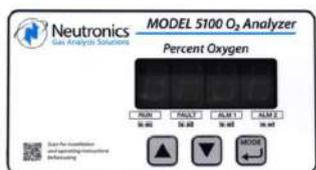


[www.sso2.com](http://www.sso2.com)



### Zirconia Trace & Percent Oxygen Analyzer Model 7100 & 5100

MSA Process Analysis, USA Established in 1914, MSA Safety Incorporated is the global leader in the development, manufacture and supply of safety and process analysis products. The company's comprehensive product line is used around the world in a broad range of markets and applications.

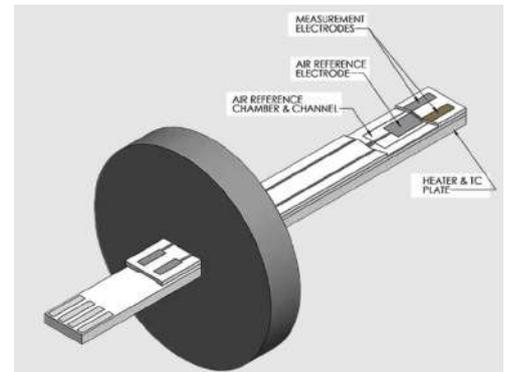
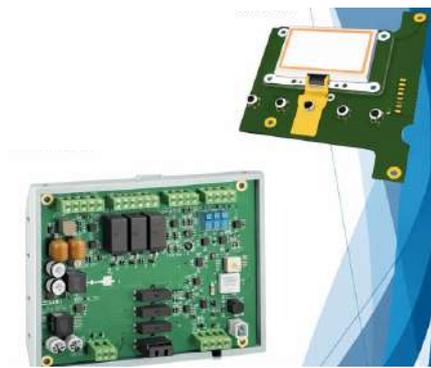
Zirconia Trace Oxygen Analyzer Model 7100	Zirconia Percent Oxygen Analyzer Model 5100
<p>The Neutronics 7100 Trace Oxygen Analyzer is a compact analyzer designed for trace oxygen gas measurement. This analyzer features a rapid-response mini-zirconia sensor with a measurement range of 0 to 1000 ppm oxygen. Extremely fast response, high accuracy, and no requirement for periodic calibrations make this analyzer a low-maintenance solution that delivers reliable performance for critical process control applications.</p>	<p>The Neutronics 5100 Percent Oxygen Analyzer is a compact analyzer designed for percent oxygen gas measurement. This analyzer features a rapid-response mini-zirconia sensor with a measurement range of 0 to 100% oxygen. Extremely high accuracy and single point calibration make this analyzer a low-maintenance solution that delivers reliable performance for critical process control applications.</p>
	

<https://us.msasafety.com/>

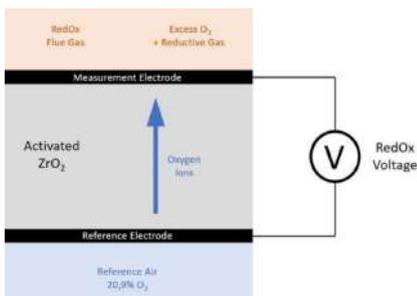
The FiNCORE technology stems from RB-Technologies' R&D and numerous innovations over 30 years of experience aimed at enhancing manufacturing, quality, and performance have revolutionized FiNCORE Zirconia analyzers.

These analyzers come in different configurations – OEM Version, General Purpose and Hazardous area to measure Oxygen and Combustibles in your combustion process.

Process temperature ranges cover from low temperature up to 300C to high temperature up to 1500C. Excellent accuracy and reliability with the speed of response makes FiNCORE a trusted name.



in-situ AFI  
combustion  
analyzers



## Replacement Parts for GC

Patented Purged Lip Sealing Valve (PLSV), features an unique purge concept that eliminates all leak types, inboard/outboard and cross port leaks. The low friction surface area between the rotor and stator reduces friction by 95%, compared to a standard commercial conical rotary GC valve. 100% of our GC valves are tested with a unique leak testing system that has 4 times the sensitivity of a helium mass spectrometer leak testing equipment. This is why we confidently offer a 3-year warranty, the best on the market.

Patented Purged Pulse Diaphragm Valve (PPDV) using the static purge principle to purge the valve's inner volume through the actuation gas, our PPDV works for applications that require the features of a diaphragm valve and also when better performance is needed from existing applications without design changes or economical carrier flow consumption cost.



**Switching & injection valve with side fittings**



**Switching & injection valve with top fittings**



**100% conical rotary compatible version**



**Sample stream selection valves**



**Trap & release valves**



**Switching & injection PPDV valve**

## GC Valves



**GC Packed Columns in glass, metal, and PTFE and several different GC Column Packings.**



**Tubing types including 304 SS, 316 SS, Copper, Nickel, Aluminum, PTFE. Tubing sizes available in 1/16, 1/8, 1/4, 3/16 & 3/8".**



**Ferrules in 100% Graphite, 60% Polyimide/40% Graphite, 85% Polyimide/15% Graphite, 100% Polyimide, and 100% PTFE ferrules. Various combinations of reducing ferrules are available.**



**Syringes, needle packs, syringe pumps, and accessories.**



**GC Stationary Phases, Solid Supports & Silylation Reagents**



**GC Tools & Supplies**



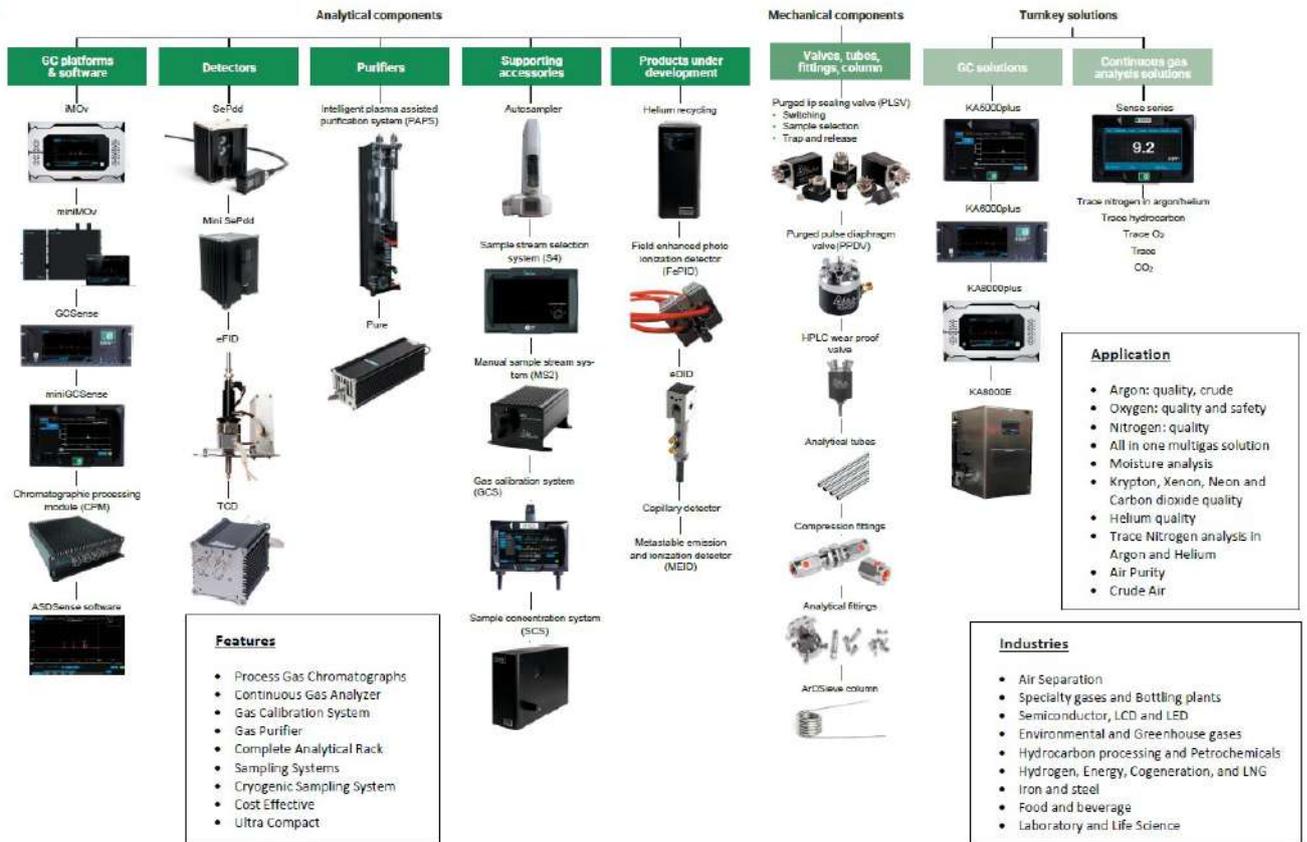
**Glass Wool**



**Vials & Accessories**



Innovative Gas Chromatography and Analysis Solutions for Process and Laboratory Gases



www.asdevices.com

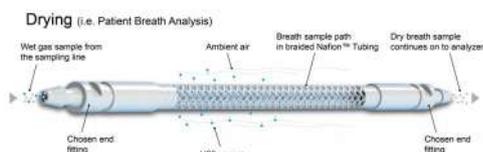


Gas Drying Solutions

Permapure dryers are powered by Nafion™ polymer which is often referred the wonder material for its unique ability to transfer moisture from one side of the membrane to the other. This transfer occurs as a first order kinetic reaction making it highly selective. Permapure Nafion Polymer tubing selectively removes water vapor from a gas sample leaving most analytes in the gas stream untouched. This selectivity for water vapor allows Permapure dryers to remove more moisture than other drying solutions, while maintaining analytes and water-soluble analytes in the gas sample. Perma Pure solutions dry, humidify, and condition gases to improve accuracy of measurement and reduce gas analyzer down time.

Applications

Wide range of gas analysis instruments and systems for Stack, Process and Ambient Monitoring, Gas Generation and Fuel Cell Humidification etc.



www.permapure.com

[Explore our line of rugged raman Laser gas analyzers for visibility into your process!](#)

ARI designs, builds, and services cutting edge Raman Laser Gas Analyzers (RLGAs) for real-time chemical compositional analysis of process gases using a novel IntraCavity approach, where gas samples are sent into a gas cell and exposed to laser radiation. The resulting Raman signal is then collected through 8 distinct optical filter channels, each mapped to a factory configured gas species of interest.

This approach enables superior sensitivity and without complicated chemometrics software. All 8 optical channels and their corresponding gas species can be measured simultaneously with variable averaging times, based on process requirements. The system is also expandable to measure 16 simultaneous gas species through the addition of a second analyzer core, running in parallel. Additionally, eliminating all fiber-optics, the laser is completely isolated from human exposure and well under the explosion safety threshold of 35 mW, providing superior safety.

**KEY FEATURES**

- **Fast Analysis:** Down to 1 sec.
- **High Sensitivity:** Low ppm
- **Wide Dynamic Range:** ppm to 100%
- **Multi-Species:** 8 Simultaneously
- **Low Maintenance:** Annual PM Schedule
- **Simple:** Easy to Setup & Use

**DEMONSTRATED SPECIES**

H<sub>2</sub>, N<sub>2</sub>, O<sub>2</sub>, CL<sub>2</sub>, CO, CO<sub>2</sub>, H<sub>2</sub>O, H<sub>2</sub>S, SO<sub>2</sub>, SO<sub>3</sub>, COS, NH<sub>3</sub>, NO<sub>2</sub>,  
 N<sub>2</sub>O, HCL, CH<sub>4</sub>, C<sub>2</sub>H<sub>6</sub>, C<sub>3</sub>H<sub>8</sub>, C<sub>4</sub>H<sub>10</sub>, DME, C<sub>2</sub>H<sub>2</sub>O, C<sub>3</sub>H<sub>6</sub>O, OR A  
 GENERAL C<sub>x</sub>H<sub>y</sub> AGGREGATE.

**Note:** If you need to measure a gas species not listed here, please contact us and we will work to support your specific requirements.

**RLGA PRODUCT LINE**

**RAMAN LASER GAS ANALYZERS (RLGA)**



**RLGA Core**

OEM & Critical Spares



**RLGA Lab**

Labs & R&D Centers



**RLGA Xtreme**

Industrial Processes



## CompanionG 4 Portable Gas Chromatograph

Glotech is pleased to present the new CompanionG 4 Portable Gas Chromatograph, with up to 4 Micro-TCD Channels. Each Channel contains a Column Oven, Pre-Column, Analytical Column and 2 Micro-TCD detectors.

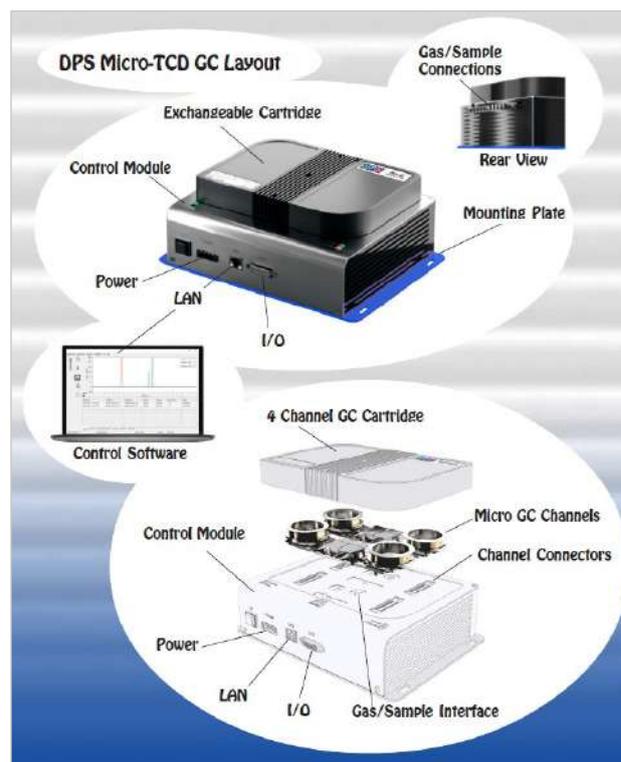
The CompanionG 4 is designed to "Go with you Anywhere!" Complete with built-in carrier and calibration gases, and a rechargeable battery. The small, rugged, and versatile Glotech CompanionG 4 is perfect for many applications.

In addition, each Channel also connects Injection and Backflush valves offering unattended operation and super-fast analysis times. A built-in Stream Selector automatically loads each sample stream, or calibration gas. Most analyses are completed in seconds and one sample can be injected right after another for Continuous Monitoring applications.

The Glotech CompanionG 4 GC Systems are a new kind of Portable GC. Offering great compound separation power in an ultra-small package. And with 4 Channel capability, even complex analyses can be performed in seconds.

### Features

- ◆ Rugged Portable Micro-TCD Gas Chromatograph
- ◆ Designed for Unattended Continuous Operation
- ◆ Most analyses in less than 1 min
- ◆ 1 to 4 GC Column Oven/Micro-TCD Channels
- ◆ Integrated 3-Stream Selector
- ◆ Automated Calibrations
- ◆ Fast & Accurate with Low Maintenance
- ◆ Built-in Instrument Diagnostics
- ◆ Easy Chromatography Data System
- ◆ Temperature Control to 0.001 °C
- ◆ Pressure Control to 0.001 kPa
- ◆ Ultra Compact and Lightweight



**The Leader in Thermostatic Temperature Control Technology**

ThermOmegaTech manufactures actuating thermostatic valves and actuators that control the temperature of fluids and gases in a wide range of applications for Industrial, Railroad, Plumbing, Aerospace and Defense. Some of the applications are Sample Cooler Temperature Control, Cooling Water Control, Domestic Hot Water Balancing, Drain Tempering, Freeze Protection, Glycol Tracing Control, High Temperature Shutoff, Instrument Enclosure Temperature Control, Locomotive Freeze Protection, Mechanical Seal Water Support, Mixing and Diverting, Passenger Rail Car Freeze protection, Pump Thermal Relief etc.



**Instrumentation Temperature Control Valves**



**Freeze Protection - HAT/FP & IC/FP**

**Thermal Relief – EcoFlow & Econo/HAT-RA**

**Mechanical Seal Protection**



**Scald Protection - HAT/SP & IC/SP**

**Washdown Stations - STVM and HCX**

**Drain Tempering Valves - DTV (Brass & SS)**



**Emergency Safety Shower**

**Railroad Freeze Protection**

**Mixing & Diverting**

**Aerospace & Defense**



**Lube Oil System**

**Hydraulic System**

**Hot Water Balancing**

**Cold Position  
Solid State**

**Hot Position  
Liquid State**

**Thermal Actuator**

**Fiber-Optic Photometric Transmitters for Industrial Labs and Process Industries**

**Industrial Processes**

**Pharmaceuticals**

**Bioprocessing**

**UV-VIS-NIR**

**Absorbance**

**Fluorescence**

**Dual Wavelength Ratio**

Since 1980, Custom Sensors & Technology (CST) has been dedicated in providing customers with robust integrated process, pharmaceuticals & bioprocessing monitoring solutions based upon offer UV / Vis / NIR fluorescence and absorbance photometric analyzers having a variety of fiber optic probes and accessories. Over 40 years, CST has been designing analytical and sample handling systems for industries such as Oil & Gas, Petrochemical & Chemical, Pharmaceutical & Bio-processing, Food & Beverage, Pulp & Paper industries. Key Measurements included are Absorbance, Fluorescence, Oil in Water, H<sub>2</sub>S, Color, Hydrocarbons, Aromatics & BTEX, Chemical detection, Water, Chlorine Dioxide, Proteins / Nucleic Acid / DNA / RNA Purity, Low Concentration Active Pharmaceutical Ingredients (API's), Cell Density, OD & NADH, Blend Uniformity Monitoring, End of Column, Tryptophan, High Potency, Turbidity, Cell Quantification, Biomass Growth, Fermentation, Powder Blending and Clean room monitoring 21CFR. Photometer Transmitter can be configured for Absorbance, Fluorescence or Reflectance measurement methods.

UV Fluorescence type Oil in Water Analyzers are available in wide measurement ranges from 0-1ppm up to 0-40,000ppm, with various options - Direct Insertion (in-situ), Sample Extraction, with Homogenization, Liquid / Liquid Solvent Extraction and different configurations - general purpose and hazardous area.



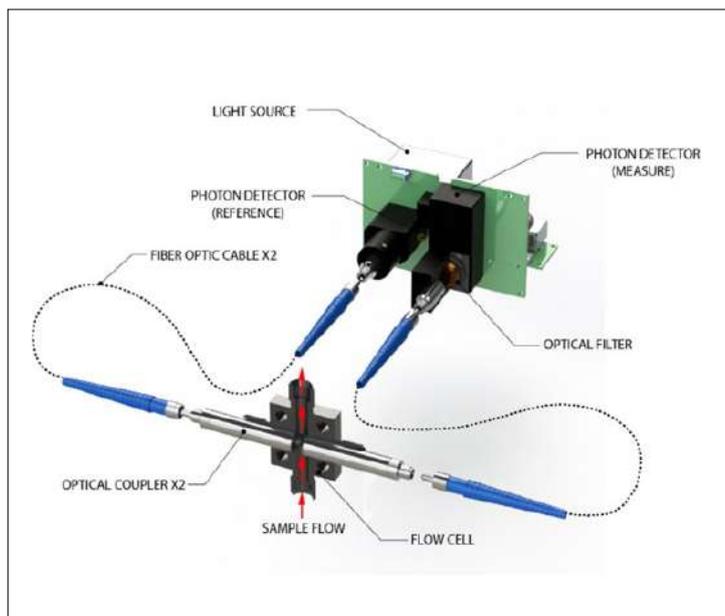
**Front Surface Fluorescence Probe**



**Single & Double Pass Transmission Probe**



**Attenuated Total Reflectance (ATR) Probe**



## On-line Water Quality Analyzers

Waltron produces the most advanced online analyzers for continuous measurement of specific contaminants in ultra-pure, industrial, and drinking water systems worldwide. We supply a full range of precisely manufactured reagents and standards that are ready to use, with no end user preparation or mixing required.

### Benefits of Waltron Analyzers

- ◆ Wide Measurement Range
- ◆ Low reagent/standard consumption
- ◆ Minimal Maintenance
- ◆ Long Service Life, Low Total Cost Of Ownership

PARAMETERS	MODEL	RANGES	TECHNOLOGY
Ammonia	3046	0-1ppm, 0-5ppm	Colorimetric
Chlorine	9092	0-1000 mg/L (ppb), 0-10000mg/L (ppm)	Potentiostatic
Conductivity & pH	9095	0-10 mS/cm, 0-100 mS/cm	Cationic Exchange
Degassed Acid Cond & pH	9096	0-10 mS/cm, 0-100 mS/cm	Cationic Exchange
Copper	3045	0-100ppb, 0-3000ppb	Colorimetric
Dissolved Hydrogen	9091 9091C portable	0-1000 mg/L, 0-10 mg/L, 0-100cc/kg	Potentiostatic
Dissolved Oxygen	9065 9065C portable	0-2000ppb, 0-45ppm	Luminescent
Ethylene/ Propylene Glycol	3049	0-15ppm	Colorimetric
Hardness	3051 6051 6051M monitor	0-1000ppb 0-536ppm 0.4, 0.9, ... 53, 89, 178ppm	Colorimetric Titrimetric
Hydrazine	3044 9071 9071C compact	0-100ppb, 0-500ppb 0-1000ppb	Colorimetric Amperometric
Iron	3048	0-100ppb	Colorimetric
Oil in Water	2410	0-99ppm	Nephelometric
Ozone / Chlorine Dioxide	9093	0-1000 mg/L (ppb), 0-10000mg/L (ppm)	Potentiostatic
Phosphate	3042	0-5ppm, 0-15ppm, 0-150ppm*, 0-300ppm*	Colorimetric
Silica	3041	0-500ppb, 0-5ppm, 0-150ppm, 0-300ppm	Colorimetric
Sodium	9031CX compact 9032X auto cal 9033X auto cal	0.1ppb-10ppm	Ion Selective



Other parameters and additional ranges are available upon request.

\* External dilution module

## Liebherr Moisture and Water Content Measurement Technologies

Liebherr has decades of experience in the Capacitive Measuring Technology. Liebherr range comprises Sensors to determine Moisture, Water Content, Coating Thickness and Surface Weight. Capacitive Sensors with In-situ configurations offer real time information to control and regulate processes to increase the efficiency and products quality.

### Industries



Fossil & Petrochem



Food & Feed



Chemical Products



Mineral Raw Materials



Agriculture & Forestry



Future Technology

### Sensor Types



P78



RMH12



P30



P80-CAN



P78-CCS



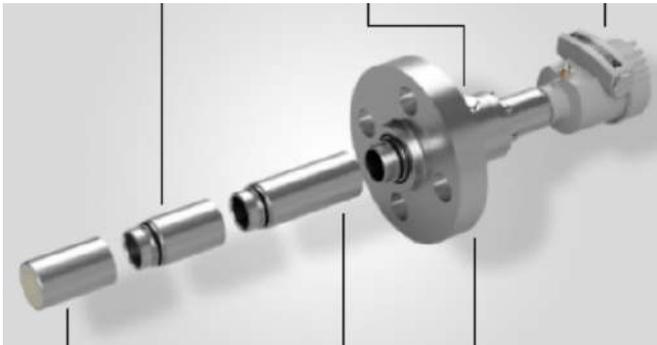
Weld-On-Fitting



Sliding Show

### Accessories

### Litronic-WMS In-Situ Configuration for Water Content, Pressure, Temperature Measurements



Pressure Sensor Option Pressure Compensation Transmitter  
Head Water Content / Moisture Variable Length Flange  
Mounting Temperature Measurement (2"-32")

#### Evaluation & Transfer Modules:



Litronic FMS II



Litronic FMS IV



### Applications

**Solids & Powders:** Bulk Materials: Sand, Quartz Sand, Shattered Glass, Soda, Incineration & Flue Ash, Ore, Minerals, Sinter, Dust Slag, Aggregates, Foundry Sand, Raw materials, Filter Cake, Ceramic Powder, Coal, Coke, Charcoal, Gypsum, Talc, Lime, Loam, Clay, Granulates, Fertilizer, Earth Soils, Recycled Materials, Carton & Paper Webs, Fleece, Plastic Film, Felt Webs, Plastic Granules, Shredded Plastic, Different Pellets, Colour Pigments, Washing Powder Detergent, Cork, Wood Fibre-Slab-Chips, Sawdust, Cat Litter, Pet Litter, Silage Forage, Biomass Digestates Straw, Silica, Pet Food (Dry + Liquid), Coarse Grain, Cereals, Mash, Food & Luxury Food, Fruit Shavings, Marc, Seed, Sugar Beet Pulp, Sprouts, Corn, Maize, Malt, Rice, Sugar, Salt, Flour, Marzipan, Coffee, Cocoa, Tea, Gelatine-Capsules, Tobacco, Lactose, Cellulose  
**Emulsions:** Diesel & Biodiesel, Oil, Crude Oil, Hardening Oil, Wax, Resin, Margarine, Coolants, Lubricants, Sludge, Methyl, Ethanol, Acetone, grease, Glue, Paint, Color, Solvents, Ceramic Slurry, Water Cut Meter, Other Emulsions & Suspensions

### Measuring Locations

Silo Outlets, Material Chutes, Baffle Plates, Conveyor Belts, Transfer Points, Dryers, Screw Conveyors, Pipes, Tanks

## The Standard For High Temperature Humidity Measurement

MAC Instruments is a leading manufacturer of in-situ *industrial moisture analyzers* and special purpose steam flow rate meters and transmitters for high-temperature applications since 1990. These devices enable you to instantly measure absolute humidity in the most challenging high-temperature conditions providing all the data you need via a simple, clear interface.

MAC products incorporate a patented proprietary sensor to provide consistent performance and accurate readings even during highly variable humidity conditions. Applications are in wide range of industries covering Cement, Oil & Gas, and Refineries, Pulp & Paper, Food & Beverage, Metal, Horticulture and agriculture etc.



**MAC 125**



**MAC 125**



**MAC 116**

[www.macinstruments.com](http://www.macinstruments.com)



## Oil In Water Monitoring & Multipurpose Sampling

Mirmorax provides industry leading sampling and Oil in Water monitoring solutions to the oil & gas industry. Mirmorax offers accurate, real-time information on the amount of dispersed oil and sand in water based on an ultrasonic measurement technique in which individual acoustic echoes are characterized using advanced signal processing.



**Oil in Water Analyzer LR2500 for 0-2500ppm of Oil & Particles**



**Portable Oil in Water Analyzer without the use of Chemicals**



**By-pass Oil in Water Analyzer RTG100**



**Subsea Oil in Water Analyzer SOIW 2500 for 0-2500ppm Oil & 0-1000ppm Particles**



**Subsea Multiphase Sampling System for true volumetric representation of the flow**



**In-line Multiphase Sampling System for true volumetric representation of the flow**



**HP15KX**



**LP900X**

[www.mirmorax.com](http://www.mirmorax.com)

