

Product Guide

Our industry-leading **gas analyzers** and systems, matched to your requirements.

Analysis that **empowers**

SERVOMEX 
a **spectris** company



James Gravestock
President of Servomex

Welcome to Servomex

Gas analysis products that empower change

At Servomex, we understand the need to build a world that is cleaner, healthier, and more productive. Our gas analyzer products are hand-built to empower that change, supporting industries and applications to make a real difference.

Developed and manufactured in our UK and Americas Technical Centres, Servomex products help you act with precision, delivering performance that is optimized to the needs of your process.

Our world-leading Hummingbird sensing technologies provide the measurements that enable you to make smarter decisions, while our sustainability-focused production processes help support your own environmental goals.

Every analyzer is built to deliver a long lifetime of performance, with ease of use and minimal maintenance at the forefront of our designs.

Incorporating the latest advances in hardware design and software control, our analyzers are optimized for hazardous or safe area use, and can integrate into existing systems or be designed into a complete system by our global network of systems integration facilities.

We analyze change, so you can make it happen. In this guide, discover the products, systems, and global service support you need to transform the future.

Follow us on social media

We regularly post on LinkedIn and Facebook. Follow us for the latest news about our expert gas analysis solutions. Be the first to find out about our product releases, exhibition appearances, and career opportunities around the globe.



facebook.com (search Servomex Group)



linkedin.com/company/servomex

This magazine is published March 2024 by Servomex Group Limited, Crowborough, East Sussex, TN6 3FB. Editorial enquiries and feedback should be sent to Colin Jones, Marketing Communications Director. Email: cjones@servomex.com

Commitment for change

Servomex is committed to sustainable operations, and has been awarded the EcoVadis Gold Rating for its business practices for the second year in a row.

Among the strengths identified for Servomex were its environmental emergency measures, specialized treatment and safe disposal of hazardous substances, and progression towards Sustainable Development Goals.

As a member of the Spectris Group, we are also proud participants in the Business Ambition for 1.5°C (34.7F) campaign, which aims to help halve global emissions by 2030.

Our focus is not just on reducing emissions, but on introducing a sustainable approach to our people and operations.



If you want to learn more, or have any questions, our team is here to help – just get in touch, or visit servomex.com/sustainability



SERVOTOUGH	O ₂	Ar	CO	CO ₂	He	C1-C6	NMHC	H ₂	HCl	CH ₄	N ₂
Oxy 1900	%										
OxyExact 2200	%										
SpectraExact 2500			% ppm	% ppm		%			% ppm	%	
FluegasExact 2700	%		ppm								
Laser 3 Plus Environmental											
Laser 3 Plus Combustion	%		ppm							%	
Laser 3 Plus Process	%										

SERVOPRO	O ₂	Ar	CO	CO ₂	He	C1-C6	NMHC	H ₂	HCl	CH ₄	N ₂
AquaXact 1688											
MonoExact DF150E	ppm/b										
MonoExact DF310E	ppm/b										
MultiExact 4100	% ppm		% ppm	% ppm					% ppm		
MultiExact 4200	%		ppm	ppm						ppm	
4900 Multigas	%		% ppm	%						ppm	
Plasma											ppm
FID											
Chroma	ppm/b	ppm/b	ppm/b	ppm/b	ppm/b		ppm/b	ppm/b		ppm/b	% ppm/b
NanoChrome	ppb/t	ppb/t	ppb/t	ppb/t			ppb/t	ppb/t		ppb/t	ppb/t
DF-500 Range	ppm/b/t										
DF-700 Range	ppm/b/t										
NanoChrome ULTRA	ppb/t	ppb/t	ppb/t	ppb/t			ppb/t	ppb/t		ppb/t	ppb/t
NanoTrace DF-560E ULTRA	ppm/b/t										
NanoTrace DF-750 ULTRA											
NanoTrace DF-760E ULTRA	ppm/b/t										

SERVOFLEX	O ₂	Ar	CO	CO ₂	He	C1-C6	NMHC	H ₂	HCl	CH ₄	N ₂
Micro i.s. 5100	%										
MinIMP 5200	%			%							
MiniHD 5200	%		%	%							

NH ₃	C ₃ H ₆	THC	H ₂ O	SO ₂	KEY APPLICATIONS HAZARDOUS AREA	PAGE
					■ Process control ■ Flare stack analysis ■ Vapor recovery ■ Safety-critical oxidation	8
					■ Oxidation control reactions ■ EO, PTA and EDC manufacturing ■ Catalyst regeneration ■ Solvent recovery	8
%	%	%	%		■ Water in EDC/solvents ■ Ethylene production ■ TDI production ■ Chlorine production	8
ppm					■ Process heaters ■ Utility boilers ■ Thermal crackers ■ Crematoria and incinerators	9
					■ Process heaters ■ Incinerators ■ Power stations ■ Furnaces ■ Thermal oxidizers	9
					■ Process heaters ■ Incinerators ■ Power stations ■ Furnaces ■ ESP protection ■ Thermal oxidizers	9
					■ Oxidation control ■ Inerting ■ Safety monitoring ■ Flare gas monitoring ■ Combustion control (<500°C) ■ Coal to chemical	10

NH ₃	C ₃ H ₆	THC	H ₂ O	SO ₂	KEY APPLICATIONS SAFE AREA	PAGE
			ppmvdp		■ Glove boxes ■ Solder reflow ovens ■ Compressed air generation ■ Ethylene production	12
					■ Glove boxes ■ Heat treating ■ Solder reflow ovens ■ Industrial gas production	12
			ppm		■ Air separation units ■ Medical/industrial gases ■ Specialty gas blending	12
			ppm		■ Product purity on ASU ■ Validation of medical O ₂ , N ₂ and air ■ Process control on ASU ■ Monitor trace CO ₂ on scrubbed air inlet to air separation process	13
					■ Hydrogen production ■ HyCO plants ■ Syngas production	13
			ppm		■ Utility boilers ■ Clinical waste incinerators ■ Chemical incinerators ■ Mobile labs	13
					■ Argon production ■ Truck loading ■ Pure gas bottling ■ Specialty gas laboratories	14
		ppm			■ Cryogenic air separation ■ Process control ■ Food gas manufacture ■ Product validation	14
					■ Medical gas production ■ ASU ■ Cryogenic truck loading station ■ High purity gas production	14
					■ Semiconductor production ■ Quality control measurements ■ Stationary analytical systems UHP gas production	15
					■ Continuous quality control monitoring ■ Post purifier quality certification ■ Leak detection for electronics grade gases	15
		ppm/b/t			■ Continuous quality control monitoring ■ Bulk gas cylinder quality control ■ Trace moisture analysis	15
					■ Semiconductor production – quality control measurements – stationary analytical systems ■ UHP gas production	16
					■ Continuous quality control monitoring ■ Inert gases control checks ■ Post-purifier quality certification ■ Leak detection	16
		ppm/b/t			■ Continuous quality control of bulk UHP gases for semiconductor fabs	16
			ppm/b/t		■ Monitoring O ₂ and H ₂ O as contaminants in UHP bulk gases used in semiconductor applications	17

NH ₃	C ₃ H ₆	THC	H ₂ O	SO ₂	KEY APPLICATIONS PORTABLES	PAGE
					■ Process monitoring ■ Inerting applications ■ Controlled atmosphere ■ Hazardous area combustion optimization	19
					■ Laboratories and research ■ Air separation and gas bottling plants ■ Transfilling ■ Combustion analysis ■ Medical gas verification	19
					■ Physiology studies ■ Universities ■ Combustion optimization	19

Get crystal clear insights with the Gen-7 DF-500 series



Gen-7
COMING
2024

See the difference the Gen-7 DF-500 Series can make to quality control. These Nanotrace oxygen analyzers offer the lowest production detection limits for ultra-high-purity (UHP) gases, powered by our industry-leading coulometric sensor. You can monitor readings with a new larger display. Plus, troubleshoot faster with multi-coloured status indicators, run chart, and data download capabilities.

- Industry-leading sensor
- Larger display and keypad
- New software features
- Backward compatibility

Find out more at: servomex.com/df-500-series



SERVOTOUGH Oxy 1900

Hazardous area

PARAMAGNETIC DIGITAL O₂ ANALYZER DESIGNED FOR HAZARDOUS AREA USE

Offering industry-standard features alongside revolutionary, value-added options, the Oxy 1900 O₂ gas analyzer sets new standards of flexibility, measurement stability and reliability from a single, cost-effective unit. Available in standard variant and user-configured options.



FEATURES AND BENEFITS

- Certified to Zone 1/Division 1 hazard-rated locations, to ATEX Cat 2, IECEx, CML (Japan) and FM/CSA Class 1 Division 1
- Allows sampling of flammable and non-flammable gas mixtures containing up to 21% O₂ at up to 18psia sample pressure
- Heated sample gas compartment provides improved measurement performance with optional sample heater for simplified sample conditioning system design
- Unique Servomex Flowcube flow sensor technology for improved safety
- Internal sample pressure compensation option available for improved measurement performance
- RS485 Modbus communications available as standard, Ethernet TCP/IP modbus as an option
- SIL 2 (Route 1H) hardware compliant

APPLICATIONS

- Process control
- Safety-critical oxidation, such as ethylene oxide and propylene oxide purity
- Flare stack analysis
- Vapor recovery

Gas	Measures	Application
Oxygen	Percent	Process Control Safety

SENSING TECHNOLOGY



SERVOTOUGH OxyExact 2200

Hazardous area

HIGH-SPEC PROCESS O₂ ANALYZER OFFERS SAFE OR HAZARDOUS AREA CONTROL WITH UP TO SIX TRANSMITTERS

The OxyExact 2200 high-specification O₂ analyzer offers an unrivaled combination of precision, flexibility and performance for optimum process and safety control. The OxyExact 2200 can be configured with a Zone 1 or Zone 2 hazardous area control unit, with up to six transmitters per control unit. Available as standard variant and user-configured options.



FEATURES AND BENEFITS

- Zone 1 certified to ATEX Cat 2, IECEx, CML (Japan) and FM/CSA Class 1 Division 1
- Transmitters and Control units are available in preconfigured discounted standard variant build options, or bespoke user-configurable build option
- Up to six transmitters can be connected to one control unit
- Control units use an option card based I/O system to allow expansion of I/O to suit system requirements
- Transmitter three-enclosure systems allow sampling of flammable and non-flammable gas mixtures gas up to 100% O₂ up to 18psia sample pressure, and 21% O₂ at higher sample pressures of up to 45psia
- High-temperature transmitter eliminates the need to condense hot wet samples prior to analysis
- Transmitter units SIL 2 (Route 1H) hardware compliant

APPLICATIONS

- Oxidation control reactions
- EO, PTA and EDC manufacturing
- Catalyst regeneration
- Solvent recovery

Gas	Measures	Application
Oxygen	Percent	Process Control Safety

SENSING TECHNOLOGY



SERVOTOUGH SpectraExact 2500

Hazardous area

RUGGED PHOTOMETRIC GAS ANALYZER FOR DEMANDING PROCESS APPLICATIONS

Servomex's iconic industry-leading Photometric analyzer delivers flexible gas analysis capability for corrosive, toxic and flammable sample streams. The SpectraExact 2500's reliable, accurate and stable real-time online process analysis makes it ideal for a range of process, combustion and emissions gas analysis applications.



FEATURES AND BENEFITS

- UKCA, CE, ATEX, UKEx, IECEx and North American hazardous area approvals
- Robust and high-performance NDIR analyzer for industrial and process applications
- Non-contact analysis, with the sample cell segregated from the electronics for ease of maintenance and safe operation

APPLICATIONS

- Ethylene production
- EDC production
- Carbon capture
- Direct reduction iron

Gas	Measures	Application
Toxic Flammable Corrosive	Percent ppm	Process Control

Liquids	Measures	Application
Toxic Flammable Corrosive	ppm	Process Control

SENSING TECHNOLOGY



SERVOTOUGH FluegasExact 2700

Hazardous area

FEATURES AND BENEFITS

- Safe Area, ATEX Cat. 3, IECEx Zone 2 and North America Class 1, Division 2 options
- Unique Flowcube flow sensor technology enables positive flow conditions to be validated with optional flow alarm
- The combustibles sensor is sulfur-resilient, enabling operation in flue gases with elevated sulfur levels
- Close-coupled extractive measurement principle
- Flame traps incorporated as standard within sample compartment for process protection
- Wide selection of probe lengths and materials available

APPLICATIONS

- Process heaters
- Utility boilers
- Thermal crackers
- Crematoria and incinerators

Gas	Measures	Application
Oxygen Combustibles	Percent Trace ppm	Process Control Combustion



Gas	Measures	Application
Calorimetry		Zirconia

SERVOTOUGH Laser 3 Plus Environmental

Hazardous area

FEATURES AND BENEFITS

- High measurement reliability utilizing Servomex's own line lock cuvette technology
- ATEX, IECEx and North American hazardous area approvals
- A compact analyzer specifically optimized for the fast, accurate and responsive measurement of NH₃
- Auto-validation feature provides complete assurance of ongoing measurement accuracy
- Meets all uptime and performance requirements for the US EPA PS18 standard for reliable CEMS monitoring of NH₃

APPLICATIONS

- Process heaters
- Incinerators
- Power stations
- Furnaces
- Thermal oxidizers

Gas	Measures	Application
Ammonia DeNOx Environmental NH ₃	Trace ppm	Process Control Emissions



SERVOTOUGH Laser 3 Plus Combustion

Hazardous area

FEATURES AND BENEFITS

- High safety integrity utilizing Servomex's own line lock cuvette technology
- Compact size means quick and easy installation by one person with on-board display negating the need for laptop configuration
- ATEX, IECEx and North American hazardous area approvals. Approved for process Zone 2. SIL 2 assessed and CE marked
- Auto-validation capability provides complete assurance of ongoing measurement accuracy

APPLICATIONS

- Process heaters
- Incinerators
- Power stations
- Furnaces
- ESP protection
- Thermal oxidizers

Gas	Measures	Application
Oxygen Carbon monoxide Carbon monoxide + methane	Percent Trace ppm	Process Control Combustion



SERVOTOUGH Laser 3 Plus Process

Hazardous area

COMPACT TDL GAS ANALYZER, OPTIMIZED FOR PROCESS O₂ MEASUREMENTS

All the benefits of Servomex's Tunable Diode Laser technology in a small, light unit offering unparalleled installation flexibility plus cost and performance benefits. Optimized for the fast, accurate and responsive measurement of process oxygen in hot or hazardous conditions.



FEATURES AND BENEFITS

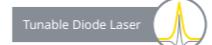
- High safety integrity utilizing Servomex's own line lock cuvette technology
- ATEX, IECEx and North American hazardous area approvals. Approved for process Zone 2. SIL 2 assessed and CE marked
- Quick and easy installation by one person with on-board display negating the need for laptop configuration
- Auto-validation capability provides complete assurance of ongoing measurement accuracy

APPLICATIONS

- Oxidation control
- Inerting
- Safety monitoring
- Flare gas monitoring
- Combustion control (<500°C, 932°F)
- Coal to chemical

Gas	Measures	Application
Oxygen	Percent	Process Control Combustion

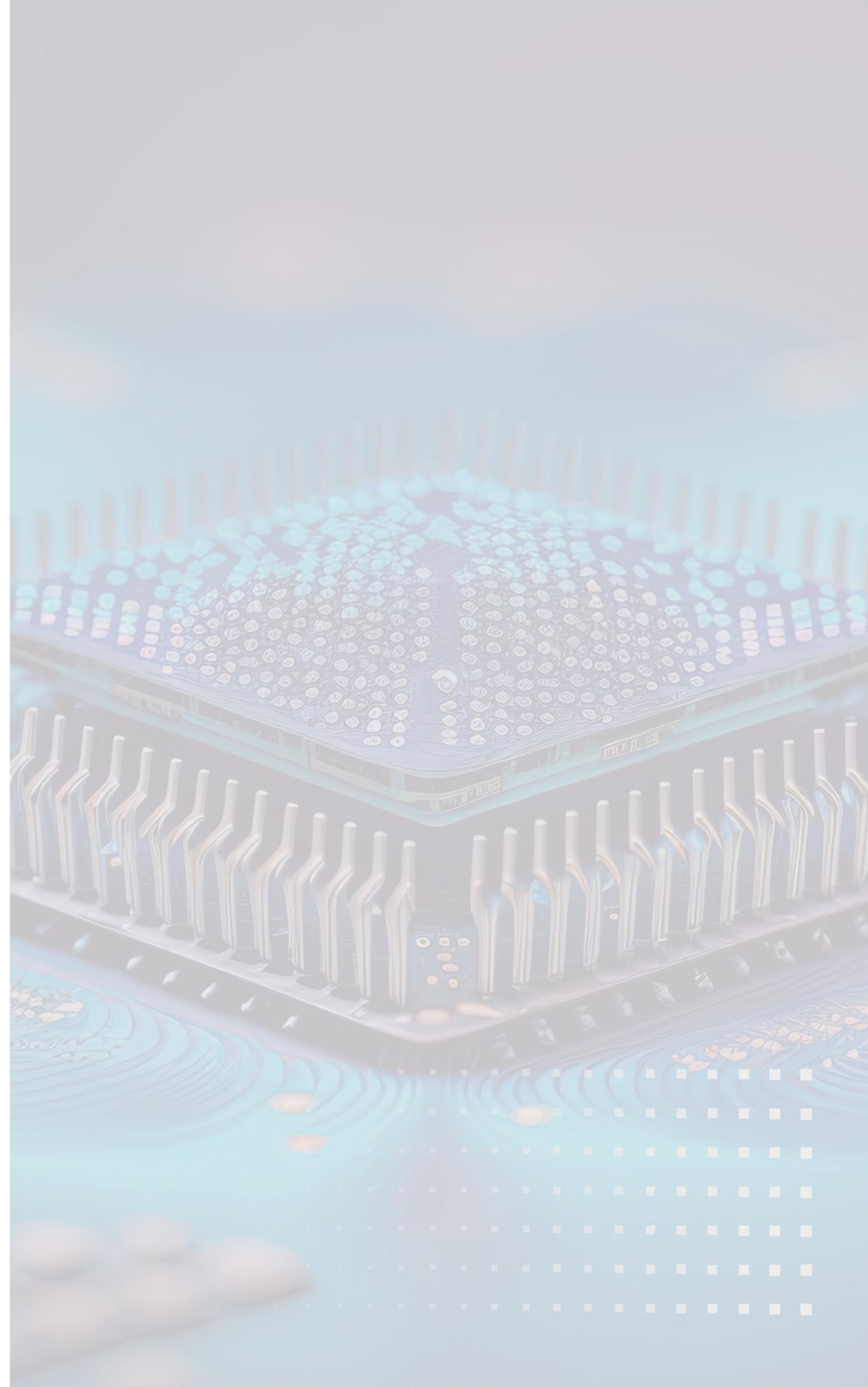
..... SENSING TECHNOLOGY



Take the road to
Decarbonization
Servomex solutions for cleaner industry

Build a better, cleaner world with Servomex gas analysis. Our expert systems will help enable you to reach your carbon reduction goals.

Learn more at: servomex.com/cleanair



SERVOPRO MultiExact 4100

Safe area

A SOPHISTICATED, NEXT-GENERATION MULTI-GAS ANALYZER PROVIDING A HIGHLY ADAPTABLE ANALYSIS SOLUTION

The MultiExact 4100 is a high-performance multi-gas analyzer designed to provide up to four simultaneous gas stream measurements including: O₂ (trace, control, and purity), CO₂, CO, N₂O, CH₄ and H₂O.



FEATURES AND BENEFITS

- Comprehensive solution for industrial and medical gas manufacture and for pharmacopeia applications
- Integrated support for the AquaXact 1688 Aluminum Oxide moisture transmitter
- Uses ultra-stable, non-depleting digital sensing technologies that help extend maintenance intervals

APPLICATIONS

- Product purity on air separation plants
- Process control on air separation plants
- Monitor trace CO₂ on scrubbed air inlet to air separation process
- Validation of medical O₂, N₂ and air

Gas	Measures	Application
Multiple	Percent Trace ppm	Process Control Quality

SENSING TECHNOLOGY



SERVOPRO MonoExact DF150E

Safe area

TOUCHSCREEN OPERATED PPM OXYGEN ANALYZER FOR GENERAL INDUSTRIAL APPLICATIONS

With a digital touchscreen and icon-driven guided user interface (GUI), the MonoExact DF150E has the reliability of Servomex's industry-standard Coulometric oxygen sensor. Available in standard variant and user-configured options.



FEATURES AND BENEFITS

- Updated digital sensor includes new operation and maintenance features that reduce cost of ownership
- Digital analyzer with self-diagnostic smart operating system monitors itself, so you can better manage your process
- Servomex proprietary software makes reporting and parameter control simple

APPLICATIONS

- Glove boxes
- Heat treating
- Solder reflow ovens
- Industrial gas production

Gas	Measures	Application
Oxygen	Trace ppm Ultra-trace ppb	Process Control Quality

SENSING TECHNOLOGY



SERVOPRO MultiExact 4200

Safe area

A SOPHISTICATED, NEXT-GENERATION MULTI-GAS ANALYZER PROVIDING A HIGHLY ADAPTABLE ANALYSIS OF FLAMMABLE GAS SAMPLES FOR TRACE CONTAMINANTS IN INDUSTRIAL APPLICATIONS

The MultiExact 4200 is a high-performance multi-gas analyzer designed to provide up to four simultaneous gas stream measurements including: O₂ control, and trace CO₂, CO, N₂O, and CH₄.



FEATURES AND BENEFITS

- Comprehensive solution for flammable gas contaminant monitoring
- Advanced digital communications including Ethernet (Modbus TCP/IP) and Modbus RS485
- Automated calibration/validation routines triggered by internal timer or external triggers
- Touchscreen GUI, now with favourite icon page and text over icon display
- Uses ultra-stable, non-depleting digital sensing technologies that help extend maintenance intervals

APPLICATIONS

- Hydrogen production
- HyCO plants
- Syngas production

Gas	Measures	Application
Multiple	Percent	Process Control Quality

SENSING TECHNOLOGY



SERVOPRO MonoExact DF310E

Safe area

NEXT-GENERATION DIGITAL OXYGEN ANALYZER DESIGNED FOR INDUSTRIAL GAS APPLICATION

Designed specifically for accurate measurements of oxygen (O₂) in industrial gas applications, the MonoExact DF310E is a next-generation digital O₂ analyzer that combines precision trace-level measurement with a icon-driven guided user interface (GUI) and advanced digital communications. Available in standard variant and user-configured options.



FEATURES AND BENEFITS

- Touchscreen GUI, now with favorite icon page and text over icon display
- Digital analyzer with self-diagnostic smart operating system monitors itself, so you can better manage your process
- AquaXact Aluminum Oxide sensor is optional for simultaneous O₂ and H₂O monitoring
- RS232, RS485, Modbus, PROFIBUS and Ethernet Modbus TCP/IP

APPLICATIONS

- Air separation units
- Medical/industrial gases
- Specialty gas blending

Gas	Measures	Application
Oxygen Moisture	Trace ppm Ultra-trace ppb Dew point ppmv	Process Control Quality

SENSING TECHNOLOGY



SERVOPRO 4900 Multigas

Safe area

AN ADVANCED DIGITAL MULTI-GAS CEMS ANALYZER

Specifically designed for Continuous Emissions Monitoring (CEMS) of flue gas, the SERVOPRO 4900 Multigas provides up to four simultaneous gas stream measurements. It combines Servomex's leading-edge sensing technologies with a modern digital platform for next-generation performance.



FEATURES AND BENEFITS

- A comprehensive solution for CEMS analysis of multiple flue gas components
- Low maintenance and cost of ownership
- Advanced digital communications including Ethernet (Modbus TCP/IP), Modbus RS485 and PROFIBUS
- Automated calibration/validation routines triggered by internal timer or external triggers
- Touchscreen GUI, now with favourite icon page and text over icon display

APPLICATIONS

- Utility boilers
- Chemical incinerators
- Crematoria
- Mobile labs

Gas	Measures	Application
Multiple	Percent Trace ppm	Emissions

SENSING TECHNOLOGY



SERVOPRO Plasma

RELIABLE MONITORING OF N₂ IN Ar AND He, OPTIMIZED FOR AIR SEPARATION UNIT (ASU) PLANT OPERATIONS

Specifically designed for the continuous monitoring of N₂ in Ar, the Plasma's non-depleting Plasma Emission Detector provides an accurate, highly stable and reliable measurement ideal for the requirements of ASU plant operators.



SERVOPRO FID

TRACE HYDROCARBON ANALYZER IDEAL FOR AIR SEPARATION UNIT (ASU) SAFETY AND QUALITY CONTROL APPLICATIONS

A Flame Ionization Detector analyzer designed to assure safe operation for cryogenic ASU, the FID ensures the level of Total Hydrocarbons (THC) is maintained below flammable limits, as well as providing quality control in pure O₂, N₂, Ar, air, He and CO₂.



SERVOPRO Chroma

HIGHLY VERSATILE TRACE GAS ANALYZER PLATFORM CONFIGURABLE TO A WIDE RANGE OF APPLICATIONS

Offering a non-depleting Plasma Emission Detector (PED), Flame Ionization Detector (FID) and Thermal Conductivity Detector (TCD), the Chroma analyzer is one of the most versatile gas analyzers for trace gas measurement available. Most applications will be satisfied by a single 4U rack analyzer configuration, making the Chroma a compact, cost-effective solution for continuous process control or quality monitoring.



Safe area

Safe area

FEATURES AND BENEFITS

- Electrical safety to IEC 61010-1: Ed 3. In compliance with Low Voltage, EMC and applicable Directives
- Wide measurement range – 0-1ppm, 0-10ppm, 0-100ppm (higher on request)
- Electronic flow control system for low flow consumption and reading stability

APPLICATIONS

- Argon production
- Truck loading
- Pure gas bottling
- Specialty gas laboratories

Gas	Measures	Application
Nitrogen	Trace ppm	Quality

..... SENSING TECHNOLOGY

Plasma



SERVOPRO NanoChrome

SUB-PPB TRACE MEASUREMENT OF H₂, CH₄, CO, CO₂, N₂, Ar AND NMHC FOR THE SEMICONDUCTOR INDUSTRY

Incorporating the latest advances in gas sensing technology and signal processing methodology, the NanoChrome offers optimum performance for purity measurements for the semiconductor industry.



SERVOPRO DF-500 Range

LEADING ULTRA-TRACE PPT O₂ ANALYZER RANGE

The new Gen-7 DF-500 delivers ultra-trace O₂ measurement for ultra-high purity applications with improved user interface, software, and diagnostic functionality. The Gen-7 uses the same industry-leading coulometric O₂ sensor to measure O₂ down to the lowest ppt levels available. Consisting of the NanoTrace DF-550E and NanoTrace DF-560E ULTRA, the NanoTrace series delivers exceptional O₂ measurements at trace and ultra-trace ppt levels.



Gen-7 COMING 2024

FEATURES AND BENEFITS

- In compliance with Low Voltage, EMC and applicable Directives
- Innovative Plasma Emission Detector (PED) sensor technology enables sub-ppb measurements of H₂, CH₄, CO, CO₂, N₂, Ar and NMHC
- Enables unique total Servomex solution for UHP gas analysis

APPLICATIONS

- Semiconductor production – quality control measurements
- Semiconductor production – stationary analytical systems
- UHP gas production – quality control measurements

Gas	Measures	Application
Multiple	Ultra-trace ppb Ultra-trace ppt	Quality

..... SENSING TECHNOLOGY

Gas Chromatography



Plasma



Safe area

Safe area

SERVOPRO DF-700 Range

TUNABLE DIODE LASER ABSORPTION SPECTROSCOPY TRACE MOISTURE ANALYZER RANGE

The new DF-700 Series Gen-7 is a sophisticated trace and ultra-trace moisture analyzer range combining new digital electronics with proven sensing technology. Designed for manufacturability and repairability, it allows for field serviceability with many components able to be replaced in the field.

FEATURES AND BENEFITS

- Exceptional range from 100ppt to 20ppm moisture level readings depending on the model
- New solid-state hard drive and CPU, including storage and recall function for archiving of operational history
- Designed with field service in mind: laser cell, SSD, CPU, PCBs, display, filter, and gas panel all easily replaced in situ

APPLICATIONS

- 745: Inert gases leak detection for LED and LCD plants
- 745 SGMax: Specialty gas cylinder quality control
- 749: HP bulk gases used in semiconductor applications
- 750: Bulk UHP gas CQC for semiconductor fabs
- 760: O₂ and H₂O monitoring in UHP bulk gases used in semiconductor applications

Gas	Measures	Application
Moisture	ppm Trace ppb Ultra-trace ppt	Quality

..... SENSING TECHNOLOGY

Laser Moisture



Safe area

Safe area

P14

P15

SERVOPRO NanoChrome ULTRA

Safe area

THE NUMBER ONE CHOICE FOR ULTRA-TRACE PURITY MEASUREMENTS IN THE SEMICONDUCTOR INDUSTRY

Delivering superior ultra-trace measurements of UHP gases in a wide range of background gases, the revolutionary NanoChrome ULTRA incorporates the latest advances in sensing and signal processing methodology, for exceptional performance.



FEATURES AND BENEFITS

- Innovative high-sensitivity Plasma Emission Detector (PED) enables ultra-trace measurements of Ar, N₂, H₂, CH₄, CO, CO₂ and NMHC
- ProPeak peak detection technique enables unprecedented measurement sensitivity
- A complete stand-alone UHP gas analysis solution when combined with DF-500 and DF-700 analyzers

APPLICATIONS

- Semiconductor production – quality control measurements
- Semiconductor production – stationary analytical systems
- UHP gas production – quality control measurements

Gas	Measures	Application
Multiple	Ultra-trace ppb Ultra-trace ppt	Quality

..... SENSING TECHNOLOGY



SERVOPRO NanoTrace DF-560E ULTRA

Safe area

MEASURES ULTRA-TRACE O₂ TO THE LOWEST LEVELS

Designed to measure ultra-trace O₂ to the ultra-low ppt levels demanded by the semiconductor sector, the DF-560E ULTRA delivers an industry-leading 45ppt lower detection limit.



FEATURES AND BENEFITS

- Lowest level O₂ real-time detection available to the semiconductor industry
- Automated maintenance performs zero and span calibrations on a scheduled basis
- Fast response and quick upset recovery ensures highly stable operation

APPLICATIONS

- Continuous quality control monitoring
- Inert gases control checks for electronics grade gases
- Post-purifier quality certification
- Leak detection for electronics-grade gases

Gas	Measures	Application
Oxygen	Trace ppm Ultra-trace ppb Ultra-trace ppt	Quality

..... SENSING TECHNOLOGY



SERVOPRO NanoTrace DF-750 ULTRA

Safe area

THE FIRST CHOICE IN MOISTURE ANALYSIS FOR THE SEMICONDUCTOR INDUSTRY

A Tunable Diode Laser Absorption Spectroscopy-based trace/ultra-trace analyzer, the DF-750 ULTRA delivers an industry-leading lower detection limit (LDL) of 55ppt for process measurements of moisture in the UHP gases used in advanced semiconductor fabs. Using the new DF-700 Gen 7 digital electronics, it offers improved serviceability and field replacement for key components.



FEATURES AND BENEFITS

- Exceptional 55ppt LDL delivers the sensitivity and precision demanded by semiconductor makers

APPLICATIONS

- Continuous quality control of bulk UHP gases for semiconductor fabs

Gas	Measures	Application
Moisture	Ppm Trace ppb Ultra-trace ppt	Quality

..... SENSING TECHNOLOGY



SERVOPRO NanoTrace DF-760E ULTRA

Safe area

FEATURES AND BENEFITS

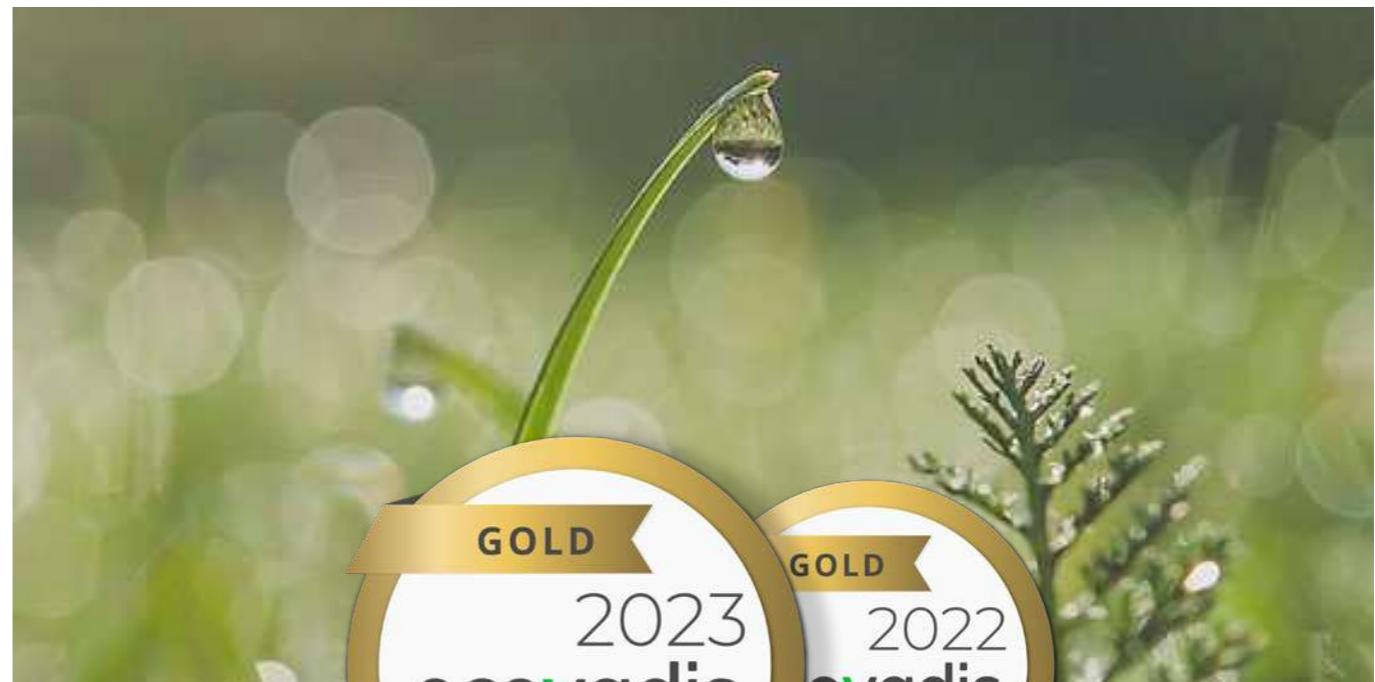
- Industry-leading LDLs of 45ppt O₂ and 55ppt moisture measurement in one unit
- Non-depleting O₂ and moisture sensing technologies reduce cost of ownership

APPLICATIONS

- Monitoring O₂ and moisture as contaminants in UHP bulk gases used in semiconductor applications



Gas	Measures	Application
Moisture Oxygen	ppm Trace ppb Ultra-trace ppt	Quality



Servomex Group Ltd

Has been awarded an Ecovadis gold medal for its sustainability practices.

Find out more: servomex.com/sustainability



SERVOFLEX Micro i.s. 5100

Portables

INTRINSICALLY SAFE ANALYZER MEASURES O₂

Designed for the measurement of oxygen in potentially flammable gas samples, the intrinsically safe Micro i.s. 5100 is a unique analyzer certified to Zone 0 and Division 1 and suitable for measuring percent levels of O₂.



FEATURES AND BENEFITS

- Intrinsically safe design (Zone 0) to ATEX and IECEx standards, Division 1 to FM and CSA standards, ensures safety operation in hazardous environments
- IP65 rugged design and optional carry case allows for use in the most demanding environments
- Powered by integral rechargeable battery with up to 18-hour run time
- Ergonomic compact design ensures easy operation on the move
- Available in non-pump or internal pumped versions with optional sample conditioning kit

APPLICATIONS

- Process monitoring
- Inerting applications
- Controlled atmosphere monitoring
- Hazardous area combustion optimization

Gas	Measures	Application
Oxygen	Percent	Process Control Safety

SENSING TECHNOLOGY

Paramagnetic



SERVOFLEX MiniMP 5200

Portables

BENCHTOP ANALYZER OFFERING SINGLE OR DUAL MEASUREMENTS OF O₂ AND CO₂

The only truly portable battery-powered gas analyzer with TÜV certification, the MiniMP 5200 is designed to offer single or dual measurement of O₂ and CO₂ by utilizing Servomex's advanced Paramagnetic and Infrared sensing technologies. Available in standard variant and user-configured options.



FEATURES AND BENEFITS

- TÜV QAL 1 makes the MiniMP ideal for source testers that require reference O₂ analysis for Continuous Emissions Monitoring Systems verification
- Li-ion battery system offers unique true portability
- Non-depleting sensor design ensures long service with minimal calibration

APPLICATIONS

- Laboratories and research
- Air separation and gas bottling plants
- Transfilling
- Combustion analysis
- Medical gas verification

Gas	Measures	Application
Oxygen Carbon dioxide	Percent	Process Control Quality Emissions

SENSING TECHNOLOGY

Paramagnetic



Infrared



SERVOFLEX MiniHD 5200

Portables

PORTABLE GAS ANALYZER FOR MEASUREMENT OF COMMON GAS MIXTURES

Designed for use in field locations or light industrial applications, the MiniHD 5200 portable gas analyzer is a rugged, heavy duty analyzer designed to accurately measure the levels of O₂, CO and CO₂ within common gas mixtures. The MiniHD 5200 utilizes Servomex's non-depleting Paramagnetic and Infrared sensors to give dependable and accurate results.



FEATURES AND BENEFITS

- Robust IP65 construction meets the demanding needs of field location analysis
- Long life Li-ion rechargeable batteries and range of sampling options ensure ease of use
- Accurate measurement of O₂, CO and CO₂ levels

APPLICATIONS

- Physiology studies
- Universities
- Combustion optimization

Gas	Measures	Application
Oxygen Carbon monoxide Carbon dioxide	Percent	Process Control Combustion Safety

SENSING TECHNOLOGY

Paramagnetic



Infrared



We analyze change, so you can make it happen

Servomex helps businesses worldwide to achieve a new level of accuracy in their operations. Our expertise empowers them to make more informed decisions, transform their processes, and make a meaningful impact.

Our global mission is to enable change through advanced gas analysis. We want to help you build a better world: one that's cleaner, healthier, and more productive.

Analysis that **empowers**

SERVOMEX 
a spectris company



Creating a cleaner world...

- Low-emission power generation
- Sustainable manufacturing
- Carbon-free fuels
- Cleaner air for all



Ensuring a healthier world...

- Safer processes, plants, and workplaces
- Secure, scalable systems
- High-purity medical oxygen
- Better healthcare



Innovating a more productive world...

- Faster, leading-edge technology
- More efficient use of resources
- Improved laboratory research
- Higher-quality chemical products