

ISSUE

9

Product Guide

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

servomex.com

Analysis that **empowers**

SERVOMEX 
a **spectris** company



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.



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	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	C1-C6	NMHC	H ₂	HCl	CH ₄	N ₂
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
NanoChrome	ppb/t	ppb/t	ppb/t	ppb/t		ppb/t	ppb/t		ppb/t	ppb/t
NanoTrace DF-550E	ppm/b/t									
DF-700 series	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	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
					■ Process heaters ■ Utility boilers ■ Thermal crackers ■ Crematoria and incinerators	9
ppm					■ 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
					■ 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

Measurement type key: Percent **%** | Parts Per Million **ppm** | Per Billion **/b** | Per Trillion **/t**

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



New

See the difference the Gen-7 DF-500 series can make to quality control. These NanoTrace oxygen analyzers offers 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 & keypad
- New software features
- Backward compatibility

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



SERVOTOUGH Hazardous area

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

Paramagnetic

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

Paramagnetic

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

- 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

Gas Filter Correlation

Infrared

SERVOTOUGH FluegasExact 2700

Hazardous area

Advanced flue gas combustion efficiency analyzer for high-temperature measurement of O₂ and combustibles

Designed to measure O₂ and COe in flue gases for improved combustion efficiency and reduced emissions, the FluegasExact 2700 gas analyzer is designed to suit the most demanding needs of combustion efficiency applications in the power generation and process industries.



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

SENSING TECHNOLOGY

Calorimetry

Zirconia

SERVOTOUGH Laser 3 Plus Environmental

Hazardous area

Compact NH₃ measurement, optimized for ammonia slip denox applications

This Tunable Diode Laser (TDL) analyzer, specifically optimized for ammonia slip measurement, provides all the benefits of Servomex's TDL technology in a compact, light unit, offering unparalleled installation flexibility plus cost and performance benefits.



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

SENSING TECHNOLOGY

Tunable Diode Laser

SERVOTOUGH Laser 3 Plus Combustion

Hazardous area

Compact combustion analyzer optimized for CO, O₂, or CO + CH₄ measurements

Containing all the benefits of Servomex's Tunable Diode Laser technology in a light, compact unit, with unmatched installation flexibility plus cost and performance benefits, this analyzer is optimized for fast, accurate and responsive measurements in combustion and process control, making it a must for safety applications.



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

SENSING TECHNOLOGY

Tunable Diode Laser

Compact tdl gas analyzer, optimized for process O_2 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 ($<500^{\circ}\text{C}$, 932°F)
 - Coal to chemical

Gas	Measures	Application
Oxygen	Percent	Process Control Combustion



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 MonoExact DF150E


Safe area

SERVOPRO MultiExact 4200

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

Coulometric



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

Gas Filter Correlation



Paramagnetic



SERVOPRO MonoExact DF310E


Safe area

SERVOPRO 4900 Multigas

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
- Integration of third-party Aluminum Oxide (Al₂O₃) sensor 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


Coulometric



Paramagnetic




Aluminum Oxide*



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


Gas Filter Correlation



Infrared



Paramagnetic



SERVOPRO MultiExact 4100


Safe area

SERVOPRO Plasma

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 third-party Aluminum Oxide (Al₂O₃) 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


Gas Filter Correlation




Paramagnetic




Infrared



Zirconia




Aluminum Oxide*



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.



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



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.



Features and benefits

- Electrical safety to IEC 61010-1. In compliance with Low Voltage, EMC and applicable Directives
- Excellent output resolution over three operating ranges
- Electronic flow controllers for air, fuel and sample for no dependency to atmospheric pressure variations and inlet pressure variation

Applications

- Cryogenic air separation
- Process control
- Food gas manufacture
- Product validation

Gas	Measures	Application
Total hydrocarbons	Trace ppm	Safety Quality

SENSING TECHNOLOGY

Flame Ionization Detector

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.



Features and benefits

- The industry standard for the reliable measurement of O₂ in semiconductor manufacture
- Fast response and quick upset recovery ensures ultimate performance
- Options include flexible configurations hand-carry portable option and on-board calibration systems

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

Coulometric



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.



Features and benefits

- Fully automated – tune to the application – system for unique simplicity of use
- Standalone system requires no third-party software or computer to operate
- For CH₄/NMHC measurements, the Plasma HC system requires no FID and therefore no H₂ fuel gas

Applications

- Medical gas production
- Air separation plants
- Cryogenic truck loading station
- High purity gas production

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

SENSING TECHNOLOGY

Gas Chromatography

Flame Ionization Detector

Plasma

Thermal Conductivity

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



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.



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

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

Gas Chromatography

Plasma

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

Coulometric

NEW GEN-7 NanoTrace SERIES

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

Laser Moisture

GEN-7 NanoTrace SERIES

SERVOPRO NanoTrace DF-760E ULTRA

Safe area

Market-leading dual analysis of O₂ and moisture

Delivering an industry-leading lower detection limit (LDL) of 55 ppt for moisture and 45ppt O₂ in the UHP gases used in advanced semiconductor fabs, the new DF-760E ULTRA Gen-7 is designed for manufacturability and repairability. A completely new digital electronic package offers enhanced field serviceability and parts replacement.



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

SENSING TECHNOLOGY

Laser Moisture

Coulometric

GEN-7 NanoTrace SERIES



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

TUV certified, truly portable, and battery operatable, 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

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Ensuring a healthier world...

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

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Innovating a more productive world...

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

Watch video:
servomex.com/more-productive-world

Whatever your service needs, Servomex Service Network has the solution. Through our network of mobile engineers and service centres, we deliver Servomex expertise directly to your plant, with a range of products customized to meet your precise process uptime requirements. Wherever you are in the world, we can support your applications, for maximum peace of mind.

Uptime+ Service Plan

A modular solution for your unique needs

Get complete support for your system and process from start-up to decommissioning. Our service plan helps to ensure optimum performance for the entire product lifecycle.

Features and benefits

- A modular service solution
- Reduced downtime
- Maintain optimum measurement accuracy
- Keep your key assets up to date



Training

Ensure your on-site user and maintenance team are fully trained on the relevant analyzer

Our customized training programs can help you get the best performance from your Servomex system. Get hands-on, practical analyzer instruction.

Features and benefits

- In-depth systems training
- Covers all key Servomex analyzers
- Presented by Servomex experts
- Given at our global training centres or on-site



Health Check

Keeping on top of the operational efficiency of your analyzer can be difficult and time-consuming

Our engineer ensures your system is performing as expected, while anomalies are detected before they become costly problems.

Features and benefits

- Quality assurance of instrument performance
- Increased reliability and trustworthy results
- Expert maintenance plans
- Avoids unscheduled repairs



On-site Service Support

Servomex service engineers are the heart of the servomex service network

Ranging from emergency assistance to routine maintenance, we ensure your gas analysis systems remain efficient and safe.

Features and benefits

- Skilled product specialists
- Highly experienced experts
- Covers all operational and maintenance needs
- Locally based for fast response



Service Centre Support

Wherever you are, there's a servomex service network team near you

For a rapid response located close to customers, our state-of-the art service centres provide comprehensive support.

Features and benefits

- Full range of services
- Regional support
- Cost-effective repairs, no compromise in quality
- Dedicated in-house team



Uptime+ Service Contract

Designed to safeguard and optimize your process

Based upon the modular service contracts, Uptime+ Service Plan delivers benefits from start-up to decommissioning, supported by our expert team.

Features and benefits

- A start-to-finish customized service to match your process
- Enhanced productivity
- Peace of mind with Servomex experts taking care of your measurements



Commissioning

When installing your new analyzer, a service network commissioning package will ensure optimum performance

Get the performance you expect from the outset, with analyzer and systems start up and configuration by our highly trained commissioning engineers.

Features and benefits

- Fast, seamless commissioning service
- Trained Servomex engineers
- Ensures optimum performance
- Qualifies analyzers for six months of additional warranty



Rentals

Servomex analyzers are available for hire, whenever you need them

Source a temporary replacement analyzer for your system quickly, with complete confidence that it will operate correctly and integrate easily.

Features and benefits

- A full range of analyzers to meet your requirements
- Equipment maintained to specification
- Expertise on hand to assist
- Fast delivery



Spares

Maintain process uptime with rapid access to high-quality spare parts

Access to the right spare parts and consumables at the right time is critical to maintaining plant operations and safeguarding productivity. We deliver high-quality, authorized parts wherever and whenever you need them.

Features and benefits

- Factory-authorized replacement parts
- Fully tested spares kits
- Ready for fast shipping
- Recommended reserve packs available



Factory Acceptance Testing

Get peace of mind that your gas analysis system will operate exactly as expected

Conducted in partnership with our expert personnel at a Servomex regional service centre, a Factory Acceptance Test (FAT) ensures your system meets specifications prior to dispatch.

Features and benefits

- The system performance you're expecting
- Ready to deliver the results you need from day one
- A chance to resolve unforeseen issues
- The opportunity to consult with our expert systems team



Find out more at: servomex.com/service

Whatever the size of your project, Servomex Systems has the capability to build and deliver the required customized solution. We assess application requirements, site conditions and many other factors to ensure we provide the system that works best, whether it be a single analyzer or a systems enclosure or rack containing multiple analysis devices.

Consult

Your needs are at the centre of the project

Our dedicated team will determine your process parameters at the outset, working with you at every stage to ensure the best results from your system.

Benefits

- Project scope
- Management procedures
- Consultation meetings
- Solution proposals
- Agreed timescales



Design

World-leading engineers for world-leading performance

We'll select the most compatible analysis technology for your application, designed for your unique process conditions, and assembled by expert engineers.

Benefits

- System design
- Expert project management
- Optimum solutions
- Safety regulation



Deliver

Your system built on time and built to last

After extensive testing, we'll deliver and install your system, providing expert support and training to ensure it operates just the way you expected, providing the results you need.

Benefits

- Installation
- Commissioning
- Process optimization
- Full support
- Extended service options



Analyzers and Panels

Expert gas analysis instrumentation and sampling systems for easy access to components for hassle-free calibration and maintenance

Our wide range of sensing technologies provides diverse, easy-to-use solutions for many industrial applications.

Features and benefits

- Optimized sampling and wiring for easy operation
- Keeps instrumentation in safe areas for maintenance
- Tailor-made to suit your application needs
- Fully integrated Servomex gas analysis technology



Racks

Systems integrating rack-mounted analyzers from our servopro and df ranges

Our rack systems locate multiple gas analyzers into a single cabinet for easy control of an array of gas analysis solutions.

Features and benefits

- Multiple analyzers working seamlessly and reliably
- Intelligent software for continuous monitoring
- Designed to meet stringent safety requirements
- A scalable solution, available as fixed racks or mobile carts



Enclosures

Enclosures ensure suitable weather protection for your system. Designed for hazardous areas

Rugged enclosed cabinets keep the instrumentation under controlled conditions for reliable, continuous performance, while allowing easy access for maintenance.

Features and benefits

- A complete system, designed into a protective cabinet
- Tailor-made to operate reliably in your process conditions
- Robust, high-quality materials
- Fully assembled, tested and certified



Continuous Quality Control

A sophisticated, next-generation multi-gas analyzer system providing gas analysis for trace contaminants in industrial gas applications

The revolutionary SERVOPRO Chroma gives stable ppb, ppm or % level measurements for CH₄, CO, CO₂, H₂, O₂, N₂, Ar, He, and NH₃. The industry-leading SERVOPRO MonoExact DF310E provides trace level O₂ and ppm and ppb moisture measurements. And the SERVOPRO MultiExact 4100 measures O₂ purity along with CO, CO₂ and CH₄ contaminants.

Features and benefits

- Unique single-manufacturer system for the Industrial Gas industry
- Monitors purity and trace impurities in all bulk inert and noble gases
- Utilizes Servomex's industry-leading analyzers
- Standard systems available, along with configurable selections for your precise stationary rack applications



Contact us today: servomex.com/systems

Get the resources you need to support your process solution

Stay informed with our expert solutions magazines

Available in downloadable and interactive versions, our Expert Solutions (ES) magazines cover a wide variety of topics, ranging from new product launches to complete process solutions. The publications also cover key markets, sensing technologies, and expert applications advice. Our annual Product Guide is also available, highlighting all our available gas analysis solutions.

Expert papers

For an in-depth look at our gas analyzers and the technologies they use, download our expert papers. Written by our knowledgeable team, they examine how our sensing technologies work and explain why certain products deliver the best solution for key applications.



Product brochures

For the best available information about our products, you'll want to read our product brochures. They outline how the analyzer works and which applications it's best suited to. It also explains the main features and their benefits, and lists all the certifications it has.



Manuals

Whether you need to replace a lost product manual, need a quick online reference, or just want to see how the product works before you order, we've got you covered. All our existing product instruction manuals are available to download, for quickstart, installation, operation and certification.



Videos

Our extensive array of videos are ready to view on our website now. Some focus on our products, including expert 'unboxings'. Others look at applications and how our products deliver the solutions you need. We also feature our experts discussing key areas of gas analysis, and how Servomex can help customers in a range of markets.



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Analysis that **empowers**

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