# SERVOMEX 2022 PRODUCT GUIDE

OUR INDUSTRY-LEADING GAS ANALYZERS AND SYSTEMS, MATCHED TO YOUR REQUIREMENTS

a spectris company

YFARS



# **GAS MEASUREMENT GUIDE**

SERVOTOUGH	NH₃	Ar	со	CO2	Не	C1-C6	NMHC	H₂	HCI	H₂S	CH₄	NO	NOx	NO2	N <sub>2</sub>
H2scan								%							
Oxy 1800															
Oxy 1900															
OxyExact 2200		- - - - - - - - - - - - - - - - - - -													
SpectraScan 2400			% <b>CV</b>	% <b>CV</b>		% <b>CV</b>				% <b>CV</b>					
SpectraExact 2500	%	- - - - - - - - - - - - - - - - - - -	%ppm	%ppm		%		- - - - - - - - - - - - - - - - - - -	%ppm		%	%ppm	- - - - - - - - - - - - - - - - - - -		
FluegasExact 2700			ppm												
Laser 3 Plus Environmental	ppm														
Laser 3 Plus Combustion			ppm								%				
Laser 3 Plus Process															
SERVOPRO	NH₃	Ar	со	CO2	Не	C1-C6	NMHC	H₂	HCI	H₂S	CH₄	NO	NOx	NO2	N2
AquaXact 1688															
AquaXact 1688 Controller													- - - - - - - - - - - - - - - - - - -		
MonoExact DF150E															
MonoExact DF310E		5 5 5 5 7 7 8 7 8							- - - - - - - -		- - - - - -		5 5 6 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		
4900 Multigas			%ppm	%							ppm	ppm			
MultiExact 4100			%ppm	%ppm							ppm				
MultiExact 4200			ppm	ppm							ppm				
NanoTrace FTIR			ppm	ppm/b <mark>/t</mark>							<b>ppm</b> /b				
Chroma		<b>ppm</b> /b	<b>ppm</b> /b	<b>ppm</b> /b	<b>ppm</b> /b		ppm	<b>ppm</b> /b			<b>ppm</b> /b				% <b>ppm</b> /b
NanoChrome		ppb <mark>/t</mark>	ppb <mark>/t</mark>	ppb <mark>/t</mark>			ppb <mark>/t</mark>	ppb <mark>/t</mark>			ppb <mark>/t</mark>				ppb <mark>/t</mark>
DF-500 Range															
DF-700 Range															
NanoChrome ULTRA		ppb <b>/t</b>	ppb <b>/t</b>	ppb <b>/t</b>			ppb <mark>/t</mark>	ppb <b>/t</b>			ppb <mark>/t</mark>				ppb <mark>/t</mark>
DF-560E NanoTrace ULTRA		- - - - - - - - - - - - - - - - - - -							- - - - - - - - - - -		- - - - - - - - - - - - - - - - - - -		~ 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		
DF-750 NanoTrace ULTRA															
DF-760E NanoTrace ULTRA															
Plasma															ppm
FID	-	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2											2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
NOx												ppm	ppm	ppm	
HFID							ppm				ppm		- - - - - -		
GAS DETECTION	NH₃	Ar	со	CO₂	Не	C1-C6	NMHC	H₂	HCI	H₂S	CH₄	NO	NOx	NO₂	N <sub>2</sub>
OxyDetect															
SERVOFLEX	NH₃	Ar	со	CO2	He	C1-C6	NMHC	H₂	HCI	H₂S	CH <sub>4</sub>	NO	NOx	NO2	N <sub>2</sub>
Micro i.s. 5100															
MiniMP 5200				%											
MiniFoodPack 5200				%											
MiniHD 5200			%	%											

## WANT TO VIEW OUR PRODUCTS ONLINE?

NO	0	C H	тис	цо	50	KEY ADDI ICATIONS   HAZARDOUS AREA	DAGE
N <sub>2</sub> O	02	C3H6		n <sub>2</sub> O	302		FAGE
	0/					= Weste water treatment = Food storage = Marine institute applications = lost blacketing	-
	70 0/					= waste water treatment = rood storage = manne merting approactions = mert blanketing	5
	70 0/					= Process control = Plate stack analysis = vapor recovery = safety-critical oxidation	5
	70					Oxidation control reactions = EO, PTA and EDC manufacturing = Catalyst regeneration = solvent recovery	0
			~	~		BIO/WODDE CONtent measurement = Gas turbine, engines, fuer cells = Flare stack monitoring	6
%ppm		%	%	%		Water in EDC/solvents  Ethylene production  IDI production  Chlorine production	6
	%					Process heaters = Utility boilers = Ihermal crackers = Crematoria and incinerators	7
						Process heaters      Incinerators      Power stations      Furnaces      Thermal oxidizers	8
	%					Process heaters = Incinerators = Power stations = Furnaces = ESP protection = Thermal oxidizers	8
	%					Oxidation control = Inerting = Safety monitoring = Flare gas monitoring = Combustion control (<500°C) = Coal to chemical	8
N₂O	<b>O</b> 2	C₃H₀	тнс	H₂O	SO₂	KEY APPLICATIONS   SAFE AREA	PAGE
				ppmvdp		Glove boxes Solder reflow ovens Compressed air generation Ethylene production	9
				ppmvdp		Glove boxes Air separation units Instrument air units Refining gases	9
	<b>ppm</b> /b					Glove boxes = Heat treating = Solder reflow ovens = Industrial gas production	9
	%ppm			ppm		Air separation units = Medical/industrial gases = Specialty gas blending	10
ppm	%				ppm	Utility boilers = Clinical waste incinerators = Chemical incinerators = Mobile labs	10
ppm	%ppm			ppm		Product purity on ASU = Validation of medical O <sub>2</sub> , N <sub>2</sub> and air = Process control on ASU Monitor trace CO <sub>2</sub> on scrubbed air inlet to air separation process	10
ppm	%ppm					■ Hydrogen production ■ HyCO plants ■ Syngas production	11
						In-line process monitoring Batch sampling Gas purity analysis Gas certification analysis Leak detection	11
	<b>ppm</b> /b					Medical gas production = ASU = Cryogenic truck loading station = High purity gas production	11
	ppb <mark>/t</mark>					Semiconductor production Quality control measurements Stationary analytical systems UHP gas production	12
	ppm/b <mark>/t</mark>					Continuous quality control monitoring = Post purifier quality certification = Leak detection for electronics grade gases	12
	ppm/b <mark>/t</mark>			ppm/b/t		■ Continuous quality control monitoring ■ Bulk gas cylinder quality control ■ Trace moisture analysis	12
	ppb <mark>/t</mark>					Semiconductor production – quality control measurements – stationary analytical systems = UHP gas production	13
	ppm/b <mark>/t</mark>					Continuous quality control monitoring Inert gases control checks Post-purifier quality certification Leak detection	13
				ppm/b <mark>/t</mark>		Continuous quality control of bulk UHP gases for semiconductor fabs	13
	ppm/b <mark>/t</mark>			ppm/b <mark>/t</mark>		Monitoring O <sub>2</sub> and H <sub>2</sub> O as comtaminants in UHP bulk gases used in semiconductor applications	14
						Argon production = Truck loading = Pure gas bottling = Specialty gas laboratories	14
			ppm			Cryogenic air separation Process control Food gas manufacture Product validation	14
						Scrubber efficiency Turbine/generator feedback control SCR/SNCR feedback control CEMS	15
			ppm			Compliance monitoring and testing = VOC abatement = Scrubber efficiency = CEMS	15
		<u></u>					DI GE
N <sub>2</sub> O	02	C₃H <sub>6</sub>	ТНС	H₂O	50 <sub>2</sub>		PAGE
	%					Pharmaceutical plants Helium production and storage Semiconductor facilities Laboratories and universities	15
N <sub>2</sub> O	02	C₃H₀	тнс	H₂O	SO2	KEY APPLICATIONS   PORTABLES	PAGE

0	02	C₃H₀	тнс	H₂O	SO2	KEY APPLICATIONS   PORTABLES	PAGE
	%					Process monitoring = Inerting applications = Controlled atmosphere = Hazardous area combustion optimization	16
	%					Laboratories and research Air separation and gas bottling plants Transfilling Combustion analysis     Medical gas verification	16
	%					<ul> <li>EMAP fresh consumable produce testing = Laboratory and research</li> <li>MAP quality testing for food, packaged pharmaceuticals and beverage products</li> </ul>	17
	%					Physiology studies = Universities = Combustion optimization	17

MEASUREMENT TYPE: PERCENT/PARTS PER MILLION/PER BILLION/PER TRILLION/BY VOLUME/DEW POINT

MEASUREMENT TYPE: PERCENT/PARTS PER MILLION/PER BILLION/PER TRILLION/BY VOLUME/DEW POINT

## Visit servomex.com

# **WELCOME TO SERVOMEX**

# THE WORLD'S LEADING MANUFACTURER OF GAS ANALYZERS AND GAS ANALYSIS SYSTEMS

Developed and manufactured in our UK and Americas Technical Centers, Servomex analyzers are hand-built to precise requirements. This ensures every product we make provides performance optimized to the needs of each customer process.

Built around the stable, accurate and reliable gas measurements provided by our world-leading Hummingbird sensing technologies, our analyzers incorporate the latest advances in hardware design and software control into resilient designs optimized for hazardous or safe area use.

Once manufactured, our analyzers can integrate into existing systems or be designed into a complete system manufactured to equally high standards in our global network of Systems integration facilities.

We build every analyzer to deliver a long lifetime of performance. This ethos is maximized through our global Service offering, which provides a complete support service for your analyzer, from commissioning to regular maintenance.



Andy Cowan, **President of Servomex** 

The world's largest and fastest-growing group of companies are aligning with the Business Ambition for 1.5°C: helping to halve global emissions by 2030. As a member of the Spectris Group, Servomex is a proud participant in this campaign, and we have committed to science-based emissions reduction targets across the entire value chain.

Find out more: servomex.com/sustainability-at-servomex

# FOLLOW US ON SOCIAL MEDIA

We regularly post on Twitter, 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.









## H2scan

## **EXPLOSION-PROOF IN-LINE**

HYDROGEN PROCESS ANALYZER, USING A SOLID-STATE, NON-CONSUMABLE SENSOR **CONFIGURED TO OPERATE IN** PROCESS GAS STREAMS

The H2scan hydrogen process analyzer features thin film technology that provides a direct hydrogen measurement that is not cross-sensitive to other gases.



## Refinery Petrochemical Manufacturing

**APPLICATIONS** 

and CSA certifications

SpectraScan 2400

Industrial gas supply



# **SERVOTOUGH Oxy 1800**

## ACCURATE AND STABLE SAFE **AREA O<sub>2</sub> ANALYZER**

Designed to reliably measure non-flammable samples up to 100% O<sub>2</sub> in many industrial applications, the Oxy 1800 is a stable, accurate and highly specific O2 analyzer for safe area use.

## FEATURES AND BENEFITS MEASURES APPLICATION GAS Internal/external use (IP66/NEMA 4X rated) Special version for solvent-bearing samples PROCESS OXYGEN PERCENT A range of alarm outputs aids integration CONTROL into control systems Easy to set-up, install and operate SAFETY Waste water treatment SENSING TECHNOLOGY Marine inerting applications

## **APPLICATIONS**

- Food storage
- Inert blanketing

hazard-rated locations



## AWARD-WINNING PARAMAGNETIC DIGITAL O<sub>2</sub> ANALYZER DESIGNED FOR HAZARDOUS AREA USE

Offering industry-standard features alongside revolutionary, value-added options, the Oxy 1900 O<sub>2</sub> gas analyzer sets new standards of flexibility, measurement stability and reliability from a single, cost-effective unit.



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

**APPLICATIONS** 

- Vapor recovery

SERVOTOUGH Oxy 1900

## **HAZARDOUS AREA**

## FEATURES AND BENEFITS

UL Class 1, Division 1, Groups B, C, D. ATEX

Easily configurable alongside SERVOTOUGH

Simple system integration

GAS	MEASURES	APPLICATION
HYDROGEN	PERCENT	PROCESS CONTROL
		QUALITY

SAFE AREA

## **HAZARDOUS AREA**

## FEATURES AND BENEFITS

Safe Area to Zone 1/Division 1

- 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 pressure compensation option available for improved measurement performance
- Modbus communications available as standard SIL 2 hardware compliant

OXYGEN PERCENT PROCESS CONTROL SAFETY	GAS	MEASURES	APPLICATION
SAFETY	OXYGEN	PERCENT	PROCESS CONTROL
• • • • • • • • • • • • • • • • • • • •			SAFETY

SENSING TECHNOLOGY



## SERVOTOUGH OxyExact 2200

## **HIGH-SPEC PROCESS O<sub>2</sub> ANALYZER OFFERS SAFE OR** HAZARDOUS AREA CONTROL WITH UP TO SIX TRANSMITTERS

The OxyExact 2200 high-specification O<sub>2</sub> 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.



## FEATURES AND BENEFITS

- Zone 1 certified to ATEX Cat 2, IECEx, CML (Japan) and FM/CSA Class 1 Division 1
- 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 any flammable gas up to 100% O2 and pressures of up to 45psia
- High-temperature transmitter eliminates the need to condense hot wet samples prior to analysis
- SIL 2 hardware compliant

## **APPLICATIONS**

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

and iso-butane

APPLICATIONS

Flare stack monitoring

Gas turbine, engines, fuel cells

## SERVOTOUGH SpectraScan 2400

**REVOLUTIONARY INLINE** FEATURES AND BENEFITS **REAL-TIME ANALYSIS OF** North American Cat 1, Division 2 ATEX Cat 3 HYDROCARBON COMPONENTS IECEx Zone 2

A real-time optical analyzer utilizing the Precisive field-proven optical bench, the SpectraScan 2400 delivers a breakthrough capability in the continuous analysis of light hydrocarbons C1-C6

C1-C6



CARBON Tunable band-pass filter enables simultaneous PERCENT MONOXIDE scanning of selected wavelength bands for gases including methane, ethane, propane CARBON CALORIFIC DIOXIDE VALUE Unique tunable filter process with Infrared photometer technology delivers C1-C6 industry-leading interference compensation HYDROGEN SULFIDE BTU/Wobbe content measurement

GAS



# SERVOTOUGH SpectraExact 2500

## **RUGGED PHOTOMETRIC GAS** ANALYZER FOR DEMANDING **PROCESS APPLICATIONS**

Servomex's iconic industry-leading Photometric analyzer delivers flexible single and multicomponent 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

- 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**

- Water in EDC/solvents
- Ethylene production
- TDI production
- Chlorine production

GAS	MEASURES	APPLICATION
тохіс	PERCENT	PROCESS CONTROL
FLAMMABLE	TRACE PPM	
CORROSIVE		
🗾 SEN	ISING TECHNO	DLOGY ·····

CORRELATION

**HAZARDOUS AREA** 

**HAZARDOUS AREA** 

MEASURES APPLICATION

PROCESS

CONTROL

OUALITY

# SERVOTOUGH FluegasExact 2700

## ADVANCED FLUE GAS ANALYZER FOR HIGH-TEMPERATURE **MEASUREMENT OF O<sub>2</sub>** AND COMBUSTIBLES

Designed to measure O<sub>2</sub> 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.



## sample compartment Wide selection of probe lengths and materials available **APPLICATIONS** Process heaters

- Utility boilers
- Thermal crackers Crematoria and incinerators

Class 1, Division 2



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PROCESS

CONTROL

HAZARDOUS AREA

PERCENT

MEASURES APPLICATION



GAS

OXYGEN

## **HAZARDOUS AREA**

## FEATURES AND BENEFITS

- ATEX Cat. 3, IECEx Zone 2 and North America
- Unique Flowcube flow sensor technology enables positive flow conditions to be
- validated with optional flow alarm Sulfur-resistant combustibles sensor enables
- sensor to operate at elevated sulfur levels Close-coupled extractive measurement principle
- Elame traps incorporated as standard within





## 40400

## SERVOTOUGH Laser 3 Plus Environmental Hazardous area

## COMPACT NH<sub>3</sub> 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 NH<sub>3</sub>
- Auto-validation feature provides complete assurance of ongoing measurement accuracy

## **APPLICATIONS**

- Process heaters Incinerators
- Power stations
- Furnaces
- Thermal oxidizers
- SERVOTOUGH Laser 3 Plus Combustion Hazardous area

## COMPACT COMBUSTION ANALYZER OPTIMIZED FOR CO. $O_{24}$ OR CO + CH<sub>4</sub> MEASUREMENTS

Containing all the benefits of Servomex's TDL 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.



All the benefits of Servomex's TDL technology

installation flexibility plus cost and performance

benefits. Optimized for the fast, accurate and

responsive measurement of process O<sub>2</sub> in hot or

98.03

in a small, light unit offering unparalleled

MEASUREMENTS

hazardous conditions

## 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. SII 2 assessed and CE marked Auto-validation feature provides complete
- assurance of ongoing measurement accuracy

## **APPLICATIONS**

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

## **SERVOTOUGH Laser 3 Plus Process**

### COMPACT TDL GAS ANALYZER, FEATURES AND BENEFITS **OPTIMIZED FOR PROCESS O**<sub>2</sub>

- 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 feature 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

MEASURES APPLICATION GAS AMMONIA PROCESS TRACE PPM DeNOx CONTROL ENVIRONMENTAL EMISSIONS NH





GAS

OXYGEN

CARBON

MONOXIDE

CARBON

MONOXIDE + METHANE





# **SERVOPRO AquaXact 1688**

## A FAST, ACCURATE AND **RESILIENT MOISTURE MEASUREMENT SOLUTION**

The AguaXact 1688 is a rugged ultra-thin film Aluminum Oxide moisture sensor that enables the measurement of moisture in a wide variety of gas phase process applications, such as glove boxes, air separation units, regenerative skid drvers, combustion, and instrument air. with no calibration required after dry-out.



## **APPLICATIONS** Glove boxes

- Solder reflow ovens
- Compressed air generation
- Ethylene production



# **SERVOPRO AquaXact 1688 Controller**

## DIGITAL CONTROLLER PLATFORM | FEATURES AND BENEFITS FOR THE AquaXact 1688

Built specifically to work in harmony with the AquaXact 1688 ultra-thin film Aluminum Oxide moisture transmitter, this digital controller provides a high-clarity color touchscreen display, alarms, relays and advanced communications protocols, and allows easy sensor tip replacement in the field.



Ethernet, Modbus TCP/IP and PROFIBUS **APPLICATIONS** 

your system

response times

and reduces drift

- Air separation units Glove boxes
- Instrument air units
- Refining gases
- **SERVOPRO MonoExact DF150E**

## FEATURES AND BENEFITS

Updated digital sensor includes new operation and maintenance features that reduce cost of ownership

With a new and improved digital touchscreen and icon-driven guided user interface (GUI) for easier operation, the MonoExact DF150E combines the reliability of Servomex's tried and tested Coulometric O<sub>2</sub> sensor with a more

## **APPLICATIONS**

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

GAS PROCESS PERCENT CONTROL COMBUSTION

SENSING TECHNOLOGY

# MEASURES APPLICATION

MEASURES APPLICATION

PERCENT

TRACE PPM

SENSING TECHNOLOGY

PROCESS

CONTROL

COMBUSTION

OXYGEN

TUNABLE





## **TOUCHSCREEN OPERATED PPM O<sub>2</sub> ANALYZER FOR GENERAL**



# **HAZARDOUS AREA**

## **SAFE AREA**

## FEATURES AND BENEFITS

- Functions as a standalone 4-20mA transmitter or remotely interfaces with our digital controller, MonoExact DF310E and MultiExact 4100
- NIST-traceable field-replaceable sensor element for seamless recalibration
- Stainless steel, weatherproof casing enables operation in ambient temperatures ranging from -10°C to +70°C (14°F to 158°F)

MEASURES APPLICATION GAS PROCESS WATER DEW POINT CONTROL PPMV SENSING TECHNOLOGY

## MEASURES APPLICATION GAS Dew point and ppmv H<sub>2</sub>O measurements ■ Tight Al<sub>2</sub>O<sub>3</sub> pore structure provides PROCESS the AquaXact 1688 sensor with rapid WATER **DEW POINT** CONTROL The dense geometry increases stability PPMV Compact footprint for easy integration into SENSING TECHNOLOGY Advanced digital communications including



## **SAFE AREA**

SAFE AREA

- 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



## **SERVOPRO MonoExact DF310E**

## **NEXT-GENERATION DIGITAL O<sub>2</sub> ANALYZER DESIGNED FOR INDUSTRIAL GAS APPLICATIONS**

Designed specifically for accurately measurements of O<sub>2</sub> in industrial gas applications, the MonoExact DF310E is a next-generation digital O<sub>2</sub> analyzer that combines precision trace-level measurement with a new icon-driven guided user interface (GUI) and advanced digital communications.



## FEATURES AND BENEFITS

- Advanced touchscreen GUI for intuitive setup and operation; 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 O<sub>2</sub> and H<sub>2</sub>O monitoring
- RS232, RS485, Modbus, PROFIBUS and Ethernet Modbus TCP/IP

## **APPLICATIONS**

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

# **SERVOPRO 4900 Multigas**

## **AN ADVANCED DIGITAL** MULTI-GAS CEMS ANALYZER

Specifically designed for Continuous Emissions Monitoring Systems (CEMS) for 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.



- 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
- Completely updated icon-driven software interface for easy set-up and operation

## **APPLICATIONS**

- Utility boilers Chemical incinerators
- Crematoria
- Mobile labs

# SERVOPRO MultiExact 4100

## 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: O<sub>2</sub> (trace, control, and purity), CO<sub>2</sub>, CO, N<sub>2</sub>O, CH<sub>4</sub> (trace) and H<sub>2</sub>O.

### FEATURES AND BENEFITS Comprehensive solution for industrial and medical gas manufacture and for

- pharmacopeia applications Integrated support for the AguaXact 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 CO<sub>2</sub> on scrubbed air inlet
- to air separation process Validation of medical O<sub>2</sub>, N<sub>2</sub> and air



**SAFE AREA** 

MEASURES APPLICATION

**SAFE AREA** 

MEASURES APPLICATION

PERCENT

TRACE PPM

SENSING TECHNOLOGY

EMISSIONS

 $( \bigcirc )$ 

PERCENT

TRACE PPM

ULTRA TRACE

SENSING TECHNOLOGY

+£

PROCESS

CONTROL

OUALITY

000

GAS

OXYGEN

WATER

GAS

MULTIPLE

MEASURES APPLICATION GAS PROCESS MULTIPLE PERCENT CONTROL TRACE PPM OUALITY

## SENSING TECHNOLOGY



GAS FILTE

## SERVOPRO MultiExact 4200

## 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: O<sub>2</sub> control, CO<sub>2</sub>, CO, N<sub>2</sub>O and CH<sub>4</sub> (trace).

### Aluminum Oxide moisture transmitter Uses ultra-stable, non-depleting digital

sensing technologies that help extend maintenance intervals

## **APPLICATIONS**

- Hydrogen production
- HyCO plants
- Syngas production



# SERVOPRO NanoTrace FTIR

## UNRIVALLED ANALYSIS OF CO. **CO<sub>2</sub> AND CH<sub>4</sub> IN UHP GASES**

Using industry-leading Fourier Transformation Infrared Spectroscopy sensing, the FTIR gas analyzer is engineered to meet the requirements of most critical continuous quality control applications in ultra-high-purity (UHP) environments.

## FEATURES AND BENEFITS

- calibration or liquid nitrogen cooling required
- Lower Detection Limits as low as 25ppt Broad detection range: 0ppb-10ppm Highly reliable, virtually no maintenance,

## **APPLICATIONS**

- In-line process monitoring
- Batch sampling
- Gas purity analysis
- Gas certification analysis
- Leak detection

fuel gas

**APPLICATIONS** 

Medical gas production

Air separation plants



# **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.

# 000000

### P10

## SAFE AREA

## FEATURES AND BENEFITS

- Comprehensive solution for flammable gas contaminant monitoring
- Integrated support for the AquaXact 1688



## **SAFE AREA**

GAS	MEASURES	APPLICATION
MULTIPLE	TRACE PPT	QUALITY
····· SENS	ING TECHNOL	.OGY
INFRARED		

# COMING SOON

## **SAFE AREA**

## 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 H<sub>2</sub>
- Cryogenic truck loading station High purity gas production





## **SERVOPRO NanoChrome**

## SUB-PPB TRACE MEASUREMENT OF H<sub>2</sub>, CH<sub>4</sub>, CO, CO<sub>2</sub>, N<sub>2</sub>, Ar **AND NMHC FOR THE** SEMICONDUCTOR INDUSTRY

Incorporating the latest advances in gas sensing technology and signal processing methodology, the NanoChrome revolutionizes ultra-trace purity measurements for the semiconductor industry.

## FEATURES AND BENEFITS

- In compliance with Low Voltage, EMC and applicable Directives
- New Plasma Emission Detector (PED) Sensor technology enables sub-ppb measurements of H<sub>2</sub>, CH<sub>4</sub>, CO, CO<sub>2</sub>, N<sub>2</sub>, Ar and NMHC
- Enables unique total Servomex solution for UHP gas analysis

## **APPLICATIONS**

analytical systems

measurements

- Semiconductor production quality control measurements
- Semiconductor production stationary
- UHP gas production quality control
- MEASURES APPLICATION GAS ULTRA TRACE MULTIPLE OUALITY PPB ULTRA TRACE PPT

**SAFE AREA** 

## SENSING TECHNOLOGY



GAS

OXYGEN

GAS

WATER



# **SERVOPRO DF-500 Range**

1000000 800000

## **LEADING ULTRA-TRACE PPT O<sub>2</sub> ANALYZER RANGE**

Verified by independent experts as measuring  $O_2$  to the lowest ppt levels available, the DF-500 analyzer range delivers the premium performance in ultra-trace O<sub>2</sub> measurement. Consisting of the DF-550E NanoTrace and DF-560E NanoTrace II, the NanoTrace series delivers exceptional O<sub>2</sub> measurements at trace and ultra-trace ppt levels.



## FEATURES AND BENEFITS

- The industry standard for the reliable measurement of O<sub>2</sub> 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

# **SERVOPRO DF-700 Range**

## **TUNABLE DIODE LASER** (TDL) TRACE MOISTURE **ANALYZER RANGE**

A sophisticated process moisture analyzer range which offers users the comprehensive solution for trace and ultra-trace moisture measurement, the DF-700 series combines the latest TDL Absorption Spectroscopy technology, a robust measuring cell and a true baseline reference for highly accurate moisture measurement.



## FEATURES AND BENEFITS

- Exceptional range from 100ppt to 20ppm moisture level readings depending on the model
- Only true Laser Absorption Spectroscopy technology in the market space which is unaffected by gas contaminants that plaque CRDS laser systems
- TDLAS line lock technology keeps the laser on the moisture peak centroid measuring the entirety of the moisture's mass under the Voigt curve

## **APPLICATIONS**

- 730: Quality control of HCl gas
- 740: Analysis of electronics-grade NH<sub>3</sub> specialty gas
- 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
- 760E: O<sub>2</sub> and H<sub>2</sub>O monitoring in UHP bulk gases used in semiconductor applications

# **SERVOPRO NanoChrome ULTRA**

## 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.





DF-700 analyzers

**APPLICATIONS** 

and NMHC

UHP gas production – quality control measurements

# SERVOPRO DF-560E NanoTrace ULTRA

## MEASURES ULTRA-TRACE O<sub>2</sub> TO | FEATURES AND BENEFITS THE LOWEST LEVELS

Designed to measure ultra-trace O<sub>2</sub> to the ultra-low ppt levels demanded by the semiconductor sector, the DF-560E ULTRA delivers an industry-leading 45ppt LDL. Once the analyzer is measuring below 1 ppb, the units automatically convert to ppt for better resolution of the smallest of concentration movements.

# 0.41 CAL ZERO

Lowest level O<sub>2</sub> 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

# **SERVOPRO DF-750 NanoTrace ULTRA**

### FEATURES AND BENEFITS MOISTURE ANALYSIS FOR THE

- Exceptional 55ppt LDL delivers the sensitivity and precision demanded by semiconductor makers
- the DF-750 ULTRA delivers industry-best measurements of moisture as a contaminant in the UHP gases used in 300mm semiconductor fabs, with a LDL of 55ppt. operational history

## **APPLICATIONS**

Continuous guality control of bulk UHP gases for semiconductor fabs



THE FIRST CHOICE IN

SEMICONDUCTOR INDUSTRY

A TDL-based trace/ultra-trace analyzer.





**SAFE AREA** 

MEASURES APPLICATION

OUALITY

TRACE PPM

ULTRA TRACE

PPB

ULTRA TRACE

SENSING TECHNOLOGY



ULTRA TRACE

**+**€

**SAFE AREA** 

## FEATURES AND BENEFITS

Innovative high-sensitivity Plasma Emission Detector (PED) enables ultra-trace measurements of Ar, N<sub>2</sub>, H<sub>2</sub>, CH<sub>2</sub>, CO, CO<sub>2</sub>

ProPeak peak detection technique enables unprecedented measurement sensitivity A complete stand-alone UHP gas analysis solution when combined with DF-500 and

Semiconductor production – quality



**SAFE AREA** 

**SAFE AREA** 

## MEASURES APPLICATION GAS OXYGEN TRACE PPM OUALITY ULTRA TRACE ULTRA TRACE SENSING TECHNOLOGY +<del>0</del> Leak detection for electronics-grade gases

## **SAFE AREA**

## MEASURES APPLICATION GAS WATER TRACE PPM OUALITY Water contact with optical components is minimized for optimum reliability ULTRA TRACE Storage and recall function for archiving of PPB ULTRA TRACE SENSING TECHNOLOGY

## SERVOPRO DF-760E NanoTrace ULTRA

**SAFE AREA** 

MEASURES APPLICATION

OUALITY

**+€** 

TRACE PPM

ULTRA TRACE

ULTRA TRACE

SENSING TECHNOLOGY

GAS

WATER

OXYGEN

## **MARKET-LEADING DUAL** ANALYSIS OF O<sub>2</sub> AND MOISTURE

Delivering industry-leading quality control measurements for UHP bulk gases, the compact DF-760E NanoChrome ULTRA analyzer is a superior solution for the dual measurement of trace and ultra-trace moisture and  $O_2$ .

## FEATURES AND BENEFITS ■ Industry-leading LDLs of 45ppt O<sub>2</sub> and

- 55ppt moisture
- Non-depleting sensing technologies reduce ongoing costs
- Easy operation via front panel or digital communication options

## **APPLICATIONS**

Monitoring O<sub>2</sub> and moisture as comtaminants in UHP bulk gases used in semiconductor applications



# **SERVOPRO** Plasma

## **RELIABLE MONITORING OF N<sub>2</sub>** IN Ar AND He, OPTIMIZED FOR AIR SEPARATION UNIT (ASU) **PLANT OPERATIONS**

Specifically designed for the continuous monitoring of  $N_2$  in Ar or He or both, 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 UNITS (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 O<sub>2</sub>, N<sub>2</sub>, Ar, air, He and CO<sub>2</sub>.



## 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

- 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

# **SAFE AREA**

- MEASURES APPLICATION GAS TOTAL TRACE PPM SAFETY HYDROCARBONS OUALITY
  - SENSING TECHNOLOGY



# **SERVOPRO NOx**

## CHEMILUMINESCENCE **DETECTOR ANALYZER FOR KEY EMISSIONS APPLICATIONS INVOLVING ULTRA-LOW NO,** NO<sub>2</sub> AND NOx

Utilizing Chemiluminescence detection technology to measure NO or NO/NO<sub>2</sub>/NOx concentrations in industrial gas and vehicle emission applications, the versatile SERVOPRO NOx can be calibrated for four measurement ranges starting from ultra-low to high ppm and is easy to install and operate.

# 

# SERVOPRO HFID

## **HIGH-PERFORMANCE FAST ANALYSIS USING HEATED FID**

Using a highly sensitive heated Flame Ionization Detector (HFID) for measuring volatile hydrocarbon concentrations in industrial or vehicle emission applications, the HFID utilizes an internally heated oven set to 190°C (374°F), to maintain the sample gas above its

dew point, for optimum performance in THC analysis. Can be equipped with a non-methane cutter for additional methane (CH<sub>4</sub>) and non-methane hydrocarbon (NMHC) reporting.

# 25.3 "



NON-DEPLETING PARAMAGNETIC

**O2 MONITOR DESIGNED FOR LIFE** 

20.9

0 2 0

SAFETY APPLICATIONS

OxyDetect

# **GAS DETECTION OxyDetect**

## FEATURES AND BENEFITS

- Oxygen depletion monitor designed for safe area or hazardous area environments, utilizing superior performance of non-depleting Hummingbird Paramagnetic O<sub>2</sub>
  - available as standard Modbus digital communications
  - SIL 2 hardware compliant

- Pharmaceutical plants
- Semiconductor facilities
- Laboratories and universities

 Four user-definable measurement ranges, reconfigurable in the field

conversion option

**APPLICATIONS** 

Scrubber efficiency

- High-accuracy, gas-selective FID technology for maximized uptime Heated oven for maximum stability and
  - "hot/wet" sampling EPA Method 25A compliant
  - EPA 1065/1066 and LD Euro 6, HD Euro
  - V1 compliant

## **APPLICATIONS**

- Continuous Emissions Monitoring Systems
- VOC abatement Scrubber efficiency Compliance monitoring and testing

- IP54 (indoor use only)
- The most reliable O<sub>2</sub> detector on the market
- No more false readings or false alarms caused
- by depleting cell technologies Configurable alarm relays and mA output
- option available

## **APPLICATIONS**

Helium production and storage





sensing technology.









## SAFE AREA

## FEATURES AND BENEFITS

- High-dynamic-range NOx emissions monitoring solution with a fast response Non-depleting light-based measurement and electronic flow control keeps costs low Heated version available for wet to dry
- Mobile Source emissions standard EPA 1065/1066 and LD Euro 6, HD Euro V1 compliant
- Continuous Emissions Monitoring Systems
- Turbine/generator feedback control SCR/SNCR feedback control





## FEATURES AND BENEFITS MEASURES APPLICATION GAS TOTAL PROCESS TRACE PPM HYDROCARBONS CONTROL METHANE OUALITY NON-METHANE EMISSIONS HYDROCARBONS SENSING TECHNOLOGY

## SERVOMEX

## GAS MEASURES APPLICATION OXYGEN PERCENT SAFETY SENSING TECHNOLOGY രർറ

## **SERVOFLEX Micro i.s. 5100**

## INTRINSICALLY SAFE ANALYZER | FEATURES AND BENEFITS **MEASURES O**<sub>2</sub>

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 O<sub>2</sub>.



## 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

## **SERVOFLEX MiniMP 5200**

## **BENCHTOP ANALYZER OFFERING SINGLE OR DUAL MEASUREMENTS OF O**<sub>2</sub> AND CO<sub>2</sub>

The only truly portable battery-powered gas analyzer with MCERTS and TUV certification, the MiniMP 5200 is designed to offer single or dual measurement of O<sub>2</sub> and CO<sub>2</sub> by utilizing Servomex's advanced Paramagnetic and Infrared sensing technologies.



## FEATURES AND BENEFITS

- MCERTS V3.3, Annex F and TUV QAL 1 makes the MiniMP ideal for source testers that require reference O<sub>2</sub> analysis for Continuous Emissions Monitoring Systems (CEMS) 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



## SENSING TECHNOLOGY



# **SERVOFLEX MiniFoodPack 5200**

## **BENCHTOP ANALYZER FOR QUALITY CONTROL/CHECKS** IN MODIFIED ATMOSPHERE PACKAGING

A small sample volume portable benchtop analyzer designed specifically for the checking and quality control of gas mixtures in Modified Atmosphere Packaging (MAP) used in the food and pharmaceutical industries, the MiniFoodPack 5200 enables single or dual measurements for percent levels of O<sub>2</sub> and CO<sub>2</sub>.





Laboratory and research

# **SERVOFLEX MiniHD 5200**

### 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 O<sub>2</sub>, CO or CO<sub>2</sub> within common gas mixtures. The MiniHD 5200 utilizes Servomex's non-depleting Paramagnetic or Infrared sensors to give dependable and accurate results.



## Robust IP65 construction meets the demanding needs of field location analysis

- Long life Li-ion rechargeable batteries and
- Accurate measurement of O<sub>2</sub>, CO and CO<sub>2</sub> levels

## **APPLICATIONS**

- Physiology studies
- Universities
- Combustion optimization

WE'RE RIGHT **BY YOUR** SIDE

# THE SERVOFLEX PORTABLE OXYGEN ANALYZER RANGE

Supporting the global medical care sector with reliable, portable analysis.

SENSING TECHNOLOGY

APPLICATION

PROCESS

CONTROL

SAFETY

MEASURES

PERCENT

GAS

OXYGEN

## FEATURES AND BENEFITS

CE marked and in compliance with EEC, EMC and WEEE Directives. UL approved and CE marked 100-240V/43-70Hz AC power supply Range of sampling accessories is available for taking measurement from rigid or flexible pack Rechargeable battery option enables complete portability for flexible operation

Equilibrium Modified Atmosphere Packaging (EMAP) fresh consumable produce testing





## Contact us today: servomex.com/servoflex

# **GLOBAL SERVICE NETWORK**

Whatever your service needs, Servomex Service Network has the solution. Through our network of mobile engineers and service centers, we deliver Servomex expertise directly to your plant.



## ALL THE SUPPORT YOUR ANALYZER NEEDS

A Servomex service plan ensures our trusted gas analysis is available whenever you need it, providing maximum peace of mind.

## BENEFITS

- Customized services to match your process
- Full access to Servomex's expertise and resources
- On-site and remote support A cost-effective package



# 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 centers 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

## 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 center 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 centers provide comprehensive support.

## FEATURES AND BENEFITS

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



# Service agreements

YOU GET MUCH MORE THAN SERVICE WITH A SERVOMEX SERVICE AGREEMENT – YOU GET PEACE OF MIND, TOO

Regular servicing of your gas analysis systems adds real value to your operations, with service packages to meet your individual process needs.

## Commissioning $\mathbf{V}$

## 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

# **Rentals**

## SERVOMEX ANALYZERS ARE AVAILABLE FOR HIRE, WHENEVER YOU NEED THEM

confidence that it will operate correctly

- Source a temporary replacement analyzer for your system quickly, with complete

Fully tested spares kits

Ready for fast shipping

# **Spares**

## **RAPID ACCESS TO HIGH-OUALITY SPARE PARTS**

high-quality, authorized parts wherever and whenever you need them.

# **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 center, a Factory Acceptance Test (FAT) ensures your system meets specifications prior to dispatch.

## dav one A chance to resolve unforeseen issues

The opportunity to consult with our expert systems team

## Find out more at: servomex.com/service

## Ensures optimum performance





# **FEATURES AND BENEFITS**

## A full range of analyzers to meet

Proactive maintenance

Ongoing partnership

Pre-structured

- your requirements
- Equipment maintained to specification
- Expertise on hand to assist
- Fast delivery



and integrate easily.

# MAINTAIN PROCESS UPTIME WITH

Access to the right spare parts and consumables at the right time is critical to maintaining plant operations and safeguarding productivity. We deliver



and configuration by our highly trained commissioning engineers.



## FEATURES AND BENEFITS

Options range from off-site telephone support to complete management and maintenance of your gas analysis system











Recommended reserve packs available



## FEATURES AND BENEFITS

The system performance you're expecting Ready to deliver the results you need from





# SYSTEMS INTEGRATION

## 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 house containing multiple sampling and analysis devices.

WORLD-LEADING ENGINEERS

We'll select the most compatible analysis

technology for your application, designed

for your unique process conditions, and

FOR WORLD-LEADING

assembled by expert engineers.

Expert project management

# CONSULT

your system.

BENEFITS

Project scope

Management procedures

Consultation meetings

Solution proposals

Agreed timescales

YOUR NEEDS ARE AT THE

**CENTER OF THE PROJECT** 

your process parameters at the

Our dedicated team will determine

outset, working with you at every

stage to ensure the best results from

## DESIGN

PERFORMANCE

**BENEFITS** 

System design

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

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

# Houses

## FULLY-CONTAINED AIR **CONDITIONED SHELTERS FOR** LARGE SYSTEMS PROJECTS, CUSTOMIZED FOR INDIVIDUAL PROCESS REQUIREMENTS

A SOPHISTICATED, NEXT-

N<sub>2</sub>, Ar, He, and NHMC. The industry-

leading SERVOPRO MonoExact DF310E

provides trace level oxygen and ppm

And the SERVOPRO MultiExact 4100

measures O<sub>2</sub> purity along with CO, CO<sub>2</sub>

and ppb moisture measurements.

**GAS APPLICATIONS** 

and CH<sub>4</sub> contaminants.

With their own lighting and power supply, these shelters provide reliable protection for gas analysis equipment and people alike.

## FEATURES AND BENEFITS

- Suitable for interior or exterior installation
- Supplied with air conditioning, power distribution, lighting and customized engineering inputs and outputs
- Maximum protection against weather conditions and hazardous process environments
- of analyzers, equipment and other utilities

# **Continuous Quality Control**

## FEATURES AND BENEFITS

- **GENERATION MULTI-GAS** ANALYZER SYSTEM PROVIDING Industrial Gas industry **GAS ANALYSIS FOR TRACE CONTAMINANTS IN INDUSTRIAL** 
  - inert and noble gases Utilizes Servomex's industry-leading analyzers
- Standard systems available, along with The revolutionary SERVOPRO Chroma configurable selections for your precise gives stable ppb, ppm or % level stationary rack applications measurements for CH<sub>4</sub>, CO, CO<sub>2</sub>, H<sub>2</sub>, O<sub>2</sub>,

## Contact us today: servomex.com/systems





Intelligent software for continuous monitoring Designed to meet stringent safety requirements A scalable solution, available as fixed racks or







Custom-designed to accommodate any number





Unique single-manufacturer system for the

Monitors purity and trace impurities in all bulk



# 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.

SERVOPRO DF-75	PRODUC NanoTrace ULTRA	CT OVERVIEW
ULTRA	PROMIOUR GROUND & SERIES, A LASER MOIS SEMICONDUCTOR HID DETECTION & EASY OF	REAKING ULTRA TURE ARACITER FOR CITISES LOW SOFT
	<ul> <li>Version Processing Statement</li> <li>Statement S</li></ul>	NOT NEL - Shafingan -
Visit servores.experts	eb-750x	SERVOMEX N

## 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 is 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.







To access these resources go to: servomex.com/resources



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GET THE LATEST ALERTS ABOUT SERVOMEX SYSTEMS AND PRODUCTS

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