

SERVOMEX PRODUCT GUIDE ²⁰¹⁶

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



POWER GENERATION

HYDROCARBON
PROCESSING

SPECIALIST
APPLICATIONS

METALS & MINING

INDUSTRIAL GASES



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SERVOMEX

A MEASUREABLE ADVANTAGE

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> 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 System Integration facilities.

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

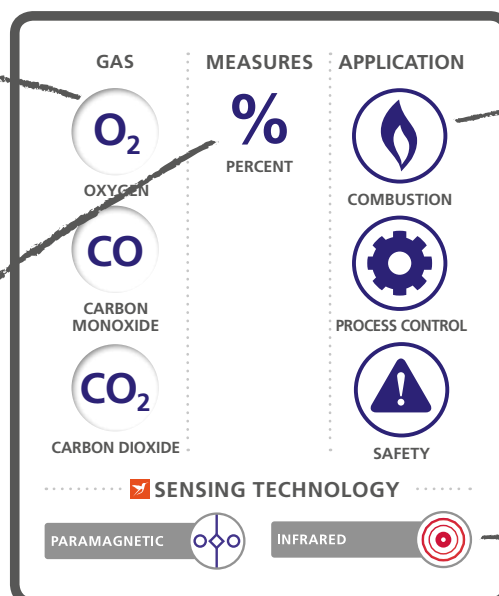


FIND YOUR PRODUCT NOW

> HOW TO GUIDE HOW TO USE AND GET THE MOST OUT OF THIS PRODUCT GUIDE

Some analyzers are optimized for single gas measurements while others monitor multiple gas types.

We offer all measurement ranges from percentage to ultra trace parts per trillion analysis.



We identify which application types the analyzer is suitable for operating in.

The Hummingbird sensing technologies used are listed.

> GAS MEASUREMENT GUIDE

| SERVOTOUGH | NH ₃ | Ar | CO | CO ₂ | He | C1-C5 | NMHC | H ₂ | HCl | HF | H ₂ S | CH ₄ | NO | N ₂ | N ₂ O | O ₂ | C ₃ H ₆ | THC | H ₂ O | SO ₂ | Page |
|-------------------|-----------------|----|-------|-----------------|----|-------|------|----------------|-------|-----|------------------|-----------------|-------|----------------|------------------|----------------|-------------------------------|-----|------------------|-----------------|------|
| 1800 | | | | | | | | | | | | | | | | % | | | | | 05 |
| Oxy 1900 | | | | | | | | | | | | | | | | % | | | | | 05 |
| OxyExact 2200 | | | | | | | | | | | | | | | | % | | | | | 05 |
| SpectraScan 2400 | | | % CV | % CV | | % CV | | | % CV | | | | | | | | | | | | 06 |
| SpectraExact 2500 | % | | % ppm | % ppm | | % | | | % ppm | | | % | % ppm | | % ppm | | % | % | % | | 06 |
| FluegasExact 2700 | | | ppm | | | | | | | | | | | | | % | | | | | 06 |
| LaserSP 2930 | ppm | | % ppm | % ppm | | | | | ppm | ppm | ppm | ppm | | | | % | | | % | | 07 |
| LaserCompact 2940 | ppm | | % ppm | % ppm | | | | | ppm | ppm | ppm | % ppm | | | | % | | | % ppm | | 07 |
| LaserExact 2950 | ppb | | ppm | ppm | | | | | ppb | ppb | ppm | | | | | ppm | | | ppm | | 07 |
| MiniLaser Oxy | | | | | | | | | | | | | | | | % | | | | | 08 |
| MiniLaser Ammonia | ppm | | | | | | | | | | | | | | | | | | | | 08 |
| H2Scan | | | | | | | | % | | | | | | | | | | | | | 08 |

| SERVOPRO | NH ₃ | Ar | CO | CO ₂ | He | C1-C5 | NMHC | H ₂ | HCl | HF | H ₂ S | CH ₄ | NO | N ₂ | N ₂ O | O ₂ | C ₃ H ₆ | THC | H ₂ O | SO ₂ | Page |
|-----------------|-----------------|---------|---------|-----------------|---------|-------|-------|----------------|-----|----|------------------|-----------------|-----|----------------|------------------|----------------|-------------------------------|-----|------------------|-----------------|------|
| 4100 | | | % ppm | % ppm | | | | | | | | % ppm | | | ppm | % ppm | | | | | 09 |
| 4200/4210 | | | % ppm | % ppm | | | | | | | | % ppm | | | ppm | % | | | | | 09 |
| 4900 | | | % ppm | % | | | | | | | | ppm | ppm | | ppm | % | | | | ppm | 09 |
| FID | | | | | | | | | | | | | | | | | | ppm | | | 10 |
| Chroma | | % ppm/b | % ppm/b | % ppm/b | % ppm/b | | ppm | % ppm/b | | | | % ppm/b | | % ppm/b | | % ppm/b | | | | | 10 |
| Plasma | | | | | | | | | | | | | | ppm | | | | | | | 10 |
| MultiExact 5400 | | | ppm | ppm | | | | | | | | ppm | | | ppm | % ppm | | | | | 11 |
| NanoChrome | | ppb/t | ppb/t | ppb/t | | ppb/t | ppb/t | | | | | ppb/t | | ppb/t | | ppb/t | | | | | 11 |
| MonoExact | | % | | | % | | | % | | | | | | % | | | | | | | 11 |

| SERVOFLEX | NH ₃ | Ar | CO | CO ₂ | He | C1-C5 | NMHC | H ₂ | HCl | HF | H ₂ S | CH ₄ | NO | N ₂ | N ₂ O | O ₂ | C ₃ H ₆ | THC | H ₂ O | SO ₂ | Page |
|-------------------|-----------------|----|----|-----------------|----|-------|------|----------------|-----|----|------------------|-----------------|----|----------------|------------------|----------------|-------------------------------|-----|------------------|-----------------|------|
| Micro i.s 5100 | | | % | % | | | | | | | | | | | | % | | | | | 12 |
| MiniMP 5200 | | | | % | | | | | | | | | | | | % | | | | | 12 |
| MiniHD 5200 | | | % | % | | | | | | | | | | | | % | | | | | 12 |
| MiniFoodPack 5200 | | | | % | | | | | | | | | | | | % | | | | | 13 |

| DELTA F | NH ₃ | Ar | CO | CO ₂ | He | C1-C5 | NMHC | H ₂ | HCl | HF | H ₂ S | CH ₄ | NO | N ₂ | N ₂ O | O ₂ | C ₃ H ₆ | THC | H ₂ O | SO ₂ | Page |
|--------------|-----------------|----|----|-----------------|----|-------|------|----------------|-----|----|------------------|-----------------|----|----------------|------------------|----------------|-------------------------------|-----|------------------|-----------------|------|
| DF-150E | | | | | | | | | | | | | | | | % ppm/b | | | | | 13 |
| DF-310E | | | | | | | | | | | | | | | | % ppm/b | | | | | 13 |
| DF-320E | | | | | | | | | | | | | | | | % ppm/b | | | | | 13 |
| DF-340E | | | | | | | | | | | | | | | | % ppm/b | | | | | 13 |
| DF-550E | | | | | | | | | | | | | | | | ppm/b | | | | | 14 |
| DF-560E | | | | | | | | | | | | | | | | ppm/b | | | | | 14 |
| DF-730 | | | | | | | | | | | | | | | | | | | ppm/b | | 14 |
| DF-740 | | | | | | | | | | | | | | | | | | | ppm/b | | 14 |
| DF-745 | | | | | | | | | | | | | | | | | | | ppm/b | | 14 |
| DF-745SG Max | | | | | | | | | | | | | | | | | | | ppm | | 14 |
| DF-749 | | | | | | | | | | | | | | | | | | | ppm/b | | 14 |
| DF-750 | | | | | | | | | | | | | | | | | | | ppm/b/t | | 14 |
| DF-760E | | | | | | | | | | | | | | | | ppm/b/t | | | ppm/b/t | | 14 |

| GAS DETECTION | NH ₃ | Ar | CO | CO ₂ | He | C1-C5 | NMHC | H ₂ | HCl | HF | H ₂ S | CH ₄ | NO | N ₂ | N ₂ O | O ₂ | C ₃ H ₆ | THC | H ₂ O | SO ₂ | Page |
|---------------|-----------------|----|----|-----------------|----|-------|------|----------------|-----|----|------------------|-----------------|----|----------------|------------------|----------------|-------------------------------|-----|------------------|-----------------|------|
| OxyDetect | | | | | | | | | | | | | | | | % | | | | | 14 |

MEASUREMENT TYPE: PERCENT/PARTS PER MILLION/PARTS PER BILLION/PARTS PER TRILLION

SERVOTOUGH Oxy 1800

HAZARDOUS AREA



ACCURATE AND STABLE SAFE AREA O₂ ANALYZER

Designed to reliably measure percent O₂ in many safety critical industrial applications, the Oxy 1800 is a stable, accurate and highly specific O₂ analyzer for safe area use.

- Internal/external use (IP66/NEMA 4X rated)
- Special version for solvent bearing samples
- Range of alarm outputs aids integration with other systems

GAS



OXYGEN

MEASURES



PERCENT

APPLICATION



PROCESS CONTROL



SAFETY

SENSING TECHNOLOGY

PARAMAGNETIC



SERVOTOUGH Oxy 1900

HAZARDOUS AREA



AWARD-WINNING PARAMAGNETIC DIGITAL O₂ ANALYZER DESIGNED FOR HAZARDOUS AREA USE

Offering an exceptional range of industry-standard options and three unique, ground-breaking functions, the Oxy 1900 O₂ gas analyzer sets new standards of flexibility, stability and reliability from a single, cost-effective unit.

- Can be used in Safe Area to Zone 1/Division 1 hazard rated locations
- Heated sample cell allowing simplified sample system requirements
- Unique Servomex Flowcube flow sensor technology for improved safety

GAS



OXYGEN

MEASURES



PERCENT

APPLICATION



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 high specification O₂ analyzer offers an unrivaled combination of precision, flexibility and performance for optimum process and safety control. The OxyExact can be configured with a safe or hazardous area control unit with up to six transmitters.

- Zone 1 certified to ATEX Cat 2, IECEx and FM/CSA Class 1 Div1
- Three enclosure systems allows sampling of any flammable gas up to 100% O₂ and pressures of up to 40psi
- High temperature version eliminates the need to condense hot sample prior to analysis

GAS



OXYGEN

MEASURES



PERCENT

APPLICATION



PROCESS CONTROL



SAFETY

SENSING TECHNOLOGY

PARAMAGNETIC



SERVOTOUGH SpectraScan 2400

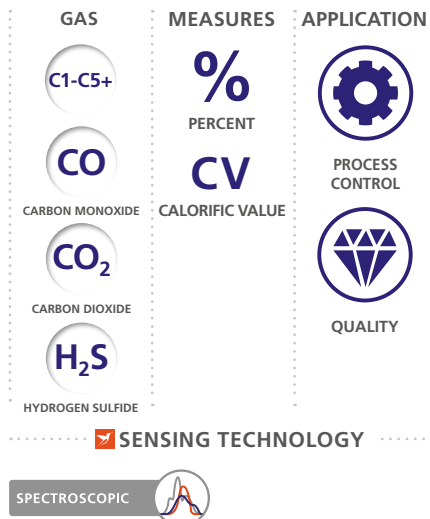
HAZARDOUS AREA



REVOLUTIONARY INLINE REAL-TIME ANALYSIS OF HYDROCARBON COMPONENTS C1-C5+

A real time optical analyzer utilizing the Precise field proven optical bench, the SpectraScan delivers a breakthrough capability in the continuous analysis of light hydrocarbons C1-C5+.

- North American Cat 1, Div 2 ATEX Cat 3 IECEx Zone2
- Tunable band-pass filter enables simultaneous scanning of selected wavelength bands for gases including Methane, Ethane, Propane and iso-Butane
- Unique tunable filter process with IR photometer technology delivers industry-leading interference compensation



SERVOTOUGH SpectraExact 2500

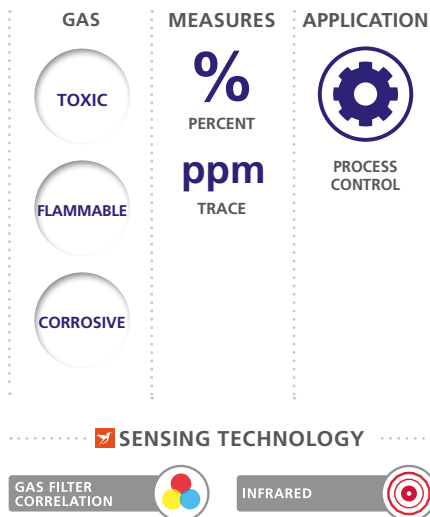
HAZARDOUS AREA



RUGGED PHOTOMETRIC GAS ANALYZER FOR DEMANDING PROCESS APPLICATIONS

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

- ATEX, IECEx and North American hazardous area approvals
- Easy integration with DCS – from 4-20mA to Modbus TCP
- Sample cell and electronics segregated – for easy maintenance and safe operation



SERVOTOUGH FluegasExact 2700

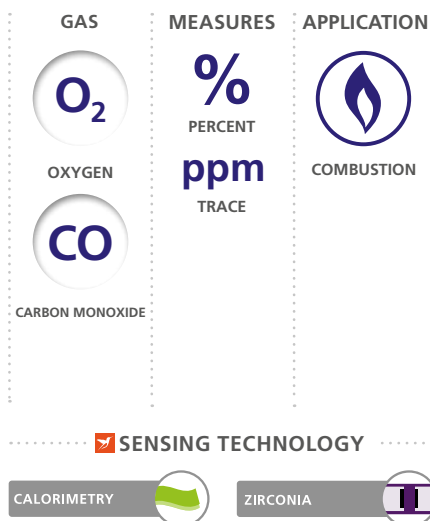
HAZARDOUS AREA



ADVANCED FLUEGAS 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 gas analyzer is designed to suit the most demanding needs of combustion efficiency applications in the Power Generation and Process Industries.

- ATEX Cat. 3, IECEx Zone 2 & North America Class I, Div. 2
- Unique Flowcube flow sensor technology enables positive flow conditions to be validated
- Sulfur-resistant combustibles sensor enables sensor to operate at elevated sulfur levels



SERVOTOUGH LaserSP 2930

HAZARDOUS AREA



HIGH-SENSITIVITY CROSS-STACK TDL ANALYZER

A high performance gas analyzer designed for continuous in-situ monitoring, the LaserSP delivers a fast response time and highly stable performance. Suitable for measuring a range of gases including O₂, HCl, HF, NH₃, CO, CO₂, H₂O, H₂S, HCN, CH₄ and other hydrocarbons, the LaserSP is ideal for a wide range of process, combustion control and emissions applications.

- Designed for Zone 1 and Zone 2 hazard rated (gas/dust) locations
- In-situ with no sample conditioning delivers reliable operation
- Wavelength Modulated Spectroscopy provides wide dynamic range and lowest cross interference

GAS

MULTIPLE

MEASURES

%
PERCENT
ppm
TRACE

APPLICATION



PROCESS
CONTROL



EMISSIONS

SENSING TECHNOLOGY

TUNABLE
DIODE LASER



SERVOTOUGH LaserCompact 2940

HAZARDOUS AREA



SHORT PATH LENGTH TDL ANALYZER

Optimized for measurement across pipes and along short measurement cells and able to measure through very thin nozzles, reducing or even eliminating consumption of purge gas, the LaserCompact delivers the fast response time, highly stable performance and minimum sample conditioning advantages of TDL technology.

- ATEX, IECEx and North American hazardous area approvals. ATEX Cat 3 (Gases) and Cat 2 (Dusts) IECEx Zone 2 and Zone 21. CSA Divisions and Zones (Gas and Dust)
- Line width correction delivers accurate measurement with variations in matrix
- In-situ with low purge gas consumption

GAS

MULTIPLE

MEASURES

%
PERCENT
ppm
TRACE

APPLICATION



PROCESS
CONTROL



QUALITY

SENSING TECHNOLOGY

TUNABLE
DIODE LASER



SERVOTOUGH LaserExact 2950

HAZARDOUS AREA



EXTRACTIVE TDL TRACE MULTIGAS ANALYZER, DESIGNED FOR MEASURING TRACE GASES OFFLINE

Specifically designed for extractive trace analysis applications, the LaserExact's TDL technology offers unsurpassed low ppb detection limits for most gases, making it ideal for the measurement of trace gases offline.

- Zone 2/ Division 2 hazard rated locations and use without purge
- Advanced multipass cell delivers ppb or low ppm detection limits
- Innovative PeakLock pattern recognition line tracking eliminates drift over extended operational periods

GAS

MULTIPLE

MEASURES

ppb
ULTRA TRACE
ppm
TRACE

APPLICATION



PROCESS
CONTROL



QUALITY

SENSING TECHNOLOGY

TUNABLE
DIODE LASER



SERVOTOUGH MiniLaser Oxy





HAZARDOUS AREA



THE WORLD'S SMALLEST TDL GAS ANALYZER, OPTIMIZED FOR PROCESS O₂ MEASUREMENTS

All the benefits of Servomex's TDL 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.

- ATEX, IECEx and North American hazardous area approvals. Approved for process Zone 1. SIL2 approved. CE approved
- Quick and easy installation by one person with on-board display negating the need for laptop configuration and diagnostics
- Suitable for a range of combustion and process control applications

| GAS | MEASURES | APPLICATION |
|---|---|---|
|  O ₂ OXYGEN |  % PERCENT |  PROCESS CONTROL |
| | |  COMBUSTION |

SENSING TECHNOLOGY

TUNABLE
DIODE LASER



SERVOTOUGH MiniLaser Ammonia




HAZARDOUS AREA



WORLD-LEADING NH₃ MEASUREMENT, OPTIMIZED FOR AMMONIA SLIP APPLICATIONS

The only TDL analyzer specifically optimized for ammonia slip measurement. All the benefits of Servomex's TDL technology in a smaller and lighter unit, offering unparalleled installation flexibility plus cost and performance benefits.

- Atex, IECEx and North American hazardous area approvals. SIL2 approved
- The only compact analyzer specifically optimized for the fast, accurate and responsive measurement of NH₃
- Ideal for slip ammonia application on power plants

| GAS | MEASURES | APPLICATION |
|--|---|--|
|  NH ₃ AMMONIA |  ppm TRACE |  PROCESS CONTROL |

SENSING TECHNOLOGY

TUNABLE
DIODE LASER



H2Scan





HAZARDOUS AREA



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.

- UL Class 1, Division 1, Groups B, C, D. ATEX & CSA certifications
- Easily configurable alongside SERVOTOUGH SpectraScan
- Simple system integration

| GAS | MEASURES | APPLICATION |
|---|---|---|
|  H ₂ HYDROGEN |  % PERCENT |  PROCESS CONTROL |
| | |  QUALITY |

SENSING TECHNOLOGY

H2Scan thin film

SERVOPRO 4100

SAFE AREA



ANALOG MULTIGAS ANALYZER OFFERING WIDE RANGE OF TRACE AND PERCENT MEASUREMENTS

Offering the capability of measuring CO, CO₂, N₂O, CH₄, O₂ at trace levels and CO, CO₂ and CH₄ at percent levels - as well as an O₂ purity measurement - the flexibility of the SERVOPRO 4100 meets a wide range of process control and product qualification needs.

- FDA validated for medical oxygen and nitrogen production. European Pharmacopoeia compliant
- Simultaneous measurement of up to four gas streams
- Independent auto-calibration of all measurements with up to 8 isolated analog outputs and up to 12 relays with follow or freeze option

GAS

MULTIPLE

MEASURES

%
PERCENT

ppm
TRACE

APPLICATION



PROCESS
CONTROL



QUALITY

SENSING TECHNOLOGY

GAS FILTER
CORRELATION



INFRARED



PARAMAGNETIC



ZIRCONIA



SERVOPRO 4200/4210

SAFE AREA



GAS ANALYZER SUITABLE FOR FLAMMABLE GAS MIXTURES

The SERVOPRO 4200 multigas analyzer is designed to monitor flammable gas samples including H₂/CO, 'HyCO' or 'Syngas' mixtures for trace level contaminants and percent level components.

The 4200 offers oxygen control using Servomex's unique paramagnetic cell, trace level measurement of CO, CO₂, N₂O and CH₄ and percent levels of CO, CO₂, CH₄ using photometric sensor technology.

- In compliance with Low Voltage, EMC and applicable Directives
- Measures up to four gases simultaneously
- RS232 / RS485 and Modbus communications

GAS

MULTIPLE

MEASURES

%
PERCENT

ppm
TRACE

APPLICATION



PROCESS
CONTROL



QUALITY

SENSING TECHNOLOGY

GAS FILTER
CORRELATION



INFRARED



PARAMAGNETIC



SERVOPRO 4900

SAFE AREA



CONTINUOUS EMISSIONS MONITORING (CEMS) ANALYSIS OF MULTIPLE FLUE GAS COMPONENTS

The SERVOPRO 4900 is specifically designed for Continuous Emissions Monitoring, where legislation requires the measurement of several gas components in flue gas. The 4900 offers multigas capability for pollutants, greenhouse gases and reference O₂, including CO, CO₂, NO, SO₂, CH₄, N₂O.

- MCERTS / TÜV approved measurements
- Low maintenance and cost of ownership
- Easy integration with other systems

GAS

MULTIPLE

MEASURES

%
PERCENT

ppm
TRACE

APPLICATION



EMISSIONS

SENSING TECHNOLOGY

GAS FILTER
CORRELATION



PARAMAGNETIC





TRACE HYDROCARBON ANALYZER IDEAL FOR ASU SAFETY AND QUALITY CONTROL APPLICATIONS

A Flame Ionization Detector analyzer designed to assure safe operation for cryogenic air separation plants, 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.

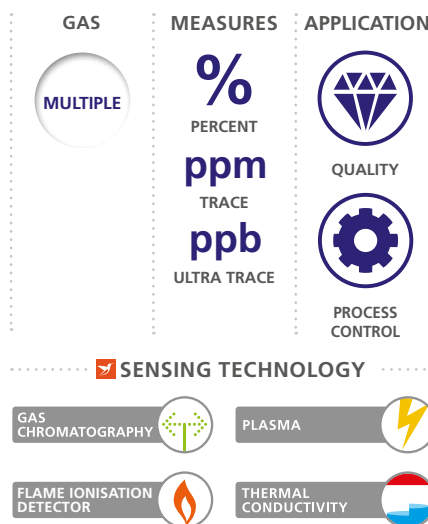
- Electrical safety to IEC 61010-1. In compliance with Low Voltage, EMC and applicable Directives
- Excellent output resolution over three operating ranges
- Electronic flow controllers for air, fuel & sample for no dependency to atmospheric pressure variations and inlet pressure variation



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

Offering a unique, non-depleting plasma emission detector, the Chroma (K4000) 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.

- PlasmaHC measurement system requires no FID for THC measurement
- Fully automated - tune to the application - system for unique simplicity of use
- Stand-alone systems requires no third-party software or computer to operate



RELIABLE MONITORING OF NITROGEN IN ARGON AND HELIUM, OPTIMIZED FOR ASU PLANT OPERATIONS

Specifically designed for the continuous monitoring of N₂ in Ar or He or both, the Plasma's unique plasma emission detector provides an accurate, highly stable and reliable measurement ideal for the requirements of ASU plant operators.

- 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



SERVOPRO MultiExact 5400

SAFE AREA



DIGITAL MULTIGAS ANALYZER, OPTIMIZED FOR WIDE RANGE OF ASU MEASUREMENTS

Combining industry-leading performance and a range of new and enhanced functions as standard, the MultiExact offers air separation plants a multi-gas analyzer specifically optimized to industry requirements - with GFx and Paramagnetic measurements now augmented by Servomex's revolutionary TCD measurement sensing technology.

- IEC 61010-1. European Pharmacopeia compliant. US Pharmacopeia compliant (O₂). In compliance with Low Voltage, EMC and applicable Directives
- TruRef technology offers class leading measurements for Ar, He and N₂
- Options include digital communication options, an internal valve block function and unique Servomex Flowcube flow sensor technology

GAS

MULTIPLE

MEASURES

%
PERCENT

ppm
TRACE

APPLICATION



PROCESS
CONTROL



QUALITY

SENSING TECHNOLOGY

GAS FILTER
CORRELATION



ZIRCONIA



PARAMAGNETIC



THERMAL
CONDUCTIVITY



SERVOPRO NanoChrome

SAFE AREA



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 revolutionizes ultra-trace purity measurements for the semiconductor industry.

- In compliance with Low Voltage, EMC and applicable Directives
- New 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

GAS

MULTIPLE

MEASURES

ppb
ULTRA TRACE

ppt
ULTRA TRACE

APPLICATION



QUALITY

SENSING TECHNOLOGY

GAS
CHROMATOGRAPHY



PLASMA



FLAME IONISATION
DETECTOR



THERMAL
CONDUCTIVITY



SERVOPRO MonoExact

SAFE AREA



DIGITAL SINGLE GAS ANALYZER WITH TCD MEASUREMENTS

The MonoExact gas analyzer brings Servomex's acclaimed TruRef Thermal Conductivity (TCD) technology to ASU operators in a compact, single component analyzer, offering class-leading measurements for Ar, He, N₂ and H₂.

- In compliance with Low Voltage, EMC and applicable Directives
- TruRef offers ASU operators truly industry-leading measurements for drift accuracy, linearity and repeatability
- Cost-of-ownership optimized by longer calibration intervals and no reference gas requirements

GAS

MULTIPLE

MEASURES

%
PERCENT

APPLICATION



PROCESS
CONTROL



QUALITY

SENSING TECHNOLOGY

THERMAL
CONDUCTIVITY



SERVOFLEX Micro i.s. 5100

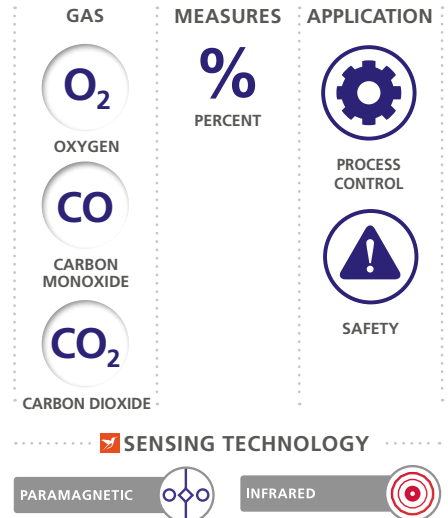
PORTABLES



INTRINSICALLY SAFE ANALYZER MEASURES OXYGEN, CARBON MONOXIDE OR CARBON DIOXIDE

Designed for the measurement of toxic and flammable gas samples, the intrinsically safe Micro i.s. is a unique analyzer certified to Zone 0 and Zone 1 and suitable for measuring percent levels of O₂, CO and CO₂.

- Intrinsically Safe design to ATEX and IEC standards ensures safety operation in hazardous environments
- Ergonomic design ensures easy operation on the move
- Available in non-pumped or pumped version with optional sample conditioning kit



SERVOFLEX MiniMP 5200

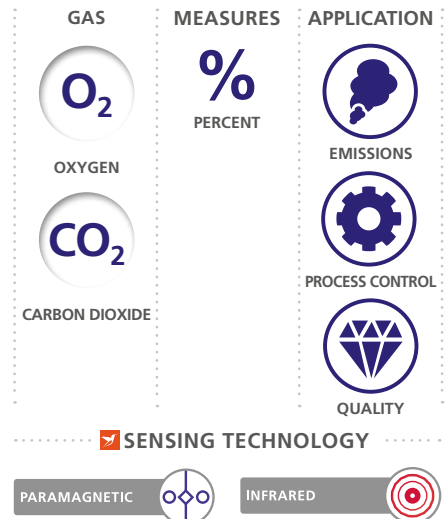
PORTABLES



BENCHTOP ANALYZER OFFERING SINGLE OR DUAL MEASUREMENTS OF OXYGEN AND CARBON DIOXIDE

The only truly portable battery powered gas analyzer with MCERTS certification, the MiniMP is a portable analyzer designed to offer single or dual measurement of O₂ and CO₂ by utilizing Servomex's advanced Paramagnetic and infrared sensing technologies.

- EN15267-3 (MCERTS V3.3, Annex F) makes the MiniMP for source testers that require reference O₂ analysis for CEMS verification
- Li-ion battery system offers unique true portability
- Non-depleting sensor design ensures long service with minimal calibration



SERVOFLEX MiniHD 5200

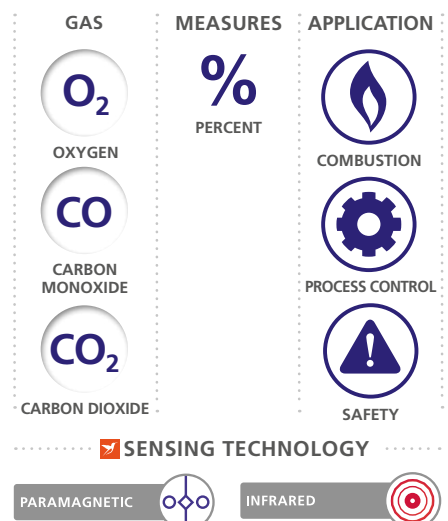
PORTABLES



PORTABLE GAS ANALYZER FOR MEASUREMENT OF COMMON GAS MIXTURES

Designed for use in field locations or light industrial applications, the MiniHD 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 utilizes Servomex's non-depleting Paramagnetic and 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 range of sampling options ensure ease of use
- Accurate measurement of O₂, CO and CO₂ levels with no background interference





BENCHTOP ANALYZER FOR CHECKS /QUALITY CONTROL IN MODIFIED ATMOSPHERES 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 enables single or dual measurements for percent levels of O₂ and CO₂.

- 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

| GAS | MEASURES | APPLICATION |
|--------------------|--------------|-------------|
| O ₂ | % PERCENT | QUALITY |
| OXYGEN | | |
| CO ₂ | | |
| CARBON DIOXIDE | | |
| SENSING TECHNOLOGY | | |
| PARAMAGNETIC | | INFRARED |

DELTA F DF-100 Range

HIGH PURITY



VERSATILE O₂ ANALYZER RANGE WITH MULTIPLE OPTIONS

An industrial gas analyzer range designed to deliver stable, accurate and reliable O₂ measurement at percent and trace levels, the DF-100 series utilizes unique, non-depleting E-sensor technology to deliver accurate results with no sensor drifting, no false low readings and no frequent calibration requirements.

- Unique non-depleting technology for long term stability and ease of maintenance
- Unique measurement stability requiring SPAN calibration only once a year
- Unique Stab-El™ acid gas alarm option neutralizes trace contaminants

| GAS | MEASURES | APPLICATION |
|--------------------|------------------------------------|----------------------------|
| O ₂ | ppm TRACE ppb ULTRA TRACE | PROCESS CONTROL QUALITY |
| OXYGEN | | |
| SENSING TECHNOLOGY | | |
| COULOMETRIC | | |

DELTA F DF-300 Range

HIGH PURITY



HIGH SENSITIVITY DIGITAL TRACE O₂ ANALYZER RANGE

The DF-300 range is a full-featured, microprocessor-based O₂ series offering customers superior value and performance. Based around the DF-310 base model, the DF-300 range uses Servomex's unique, non-depleting Coulometric E-sensor technology, to give O₂ measurements at percent, trace and ultra-trace levels.

- Extensive background gas compatibility and flexible configuration options
- Variants include CSA hazardous-area approved DF-320E for indoor installation and DF-340E for outdoor installation
- Coulometric E-sensor delivers accurate results with no sensor drifting, false low readings or frequent calibration requirements

| GAS | MEASURES | APPLICATION |
|--------------------|------------------------------------|----------------------------|
| O ₂ | ppm TRACE ppb ULTRA TRACE | PROCESS CONTROL QUALITY |
| OXYGEN | | |
| SENSING TECHNOLOGY | | |
| COULOMETRIC | | |

DELTA F DF-500 Range

HIGH PURITY



LEADING ULTRA-TRACE PPT O₂ ANALYZER RANGE

Verified by independent experts as measuring O₂ to the lowest ppt levels available, the DF-500 analyzer range delivers the premium performance in ultra-trace oxygen measurement. Consisting of the DF-550E NanoTrace and DF-560E NanoTrace II, the Nanotrace series delivers exceptional O₂ measurements at trace and ultra-trace ppt levels.

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

GAS



OXYGEN

MEASURES

ppb

ULTRA TRACE

ppt

ULTRA TRACE

APPLICATION



QUALITY

SENSING TECHNOLOGY

COULOMETRIC



DELTA F DF-700 Range

HIGH PURITY



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 Tunable Diode Laser Absorption Spectroscopy (TDL) technology, a robust measuring cell and a true baseline reference for highly accurate moisture measurement.

- Exceptional sub-ppb moisture level readings which exceed current UHP moisture measurement requirements
- Models include DF-730 (moisture in HCl); DF-740 (moisture in ammonia); DF-745 (high sensitivity 2ppb LDL); DF-745 SGMax (specialty gas trace moisture analyzer); DF-750 NanoTrace (base model); DF-760 dual oxygen and moisture measurement
- 2F TDL detection technology for robustness to particulates contamination

GAS



OXYGEN

MEASURES

ppm

TRACE

ppb

ULTRA TRACE

ppt

ULTRA TRACE

APPLICATION



QUALITY

SENSING TECHNOLOGY

LASER MOISTURE



GAS DETECTION OxyDetect

SERVOMEX



NON-DEPLETING PARAMAGNETIC OXYGEN MONITOR DESIGNED FOR LIFE SAFETY APPLICATIONS

Life safety monitor designed for safe area environments, utilizing superior performance of non-depleting Hummingbird Paramagnetic O₂ sensing technology.

- IP40 (indoor use only)
- The most reliable O₂ detector on the market
- No more false readings or false alarms caused by depleting cell technologies

GAS



OXYGEN

MEASURES

%

PERCENT

APPLICATION



SAFETY

SENSING TECHNOLOGY

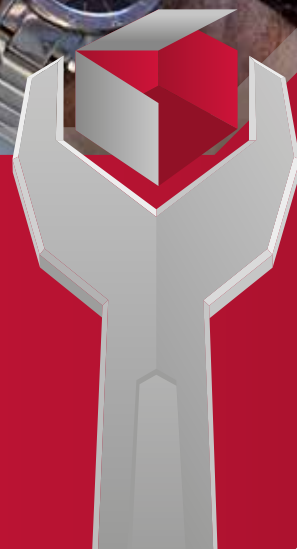
PARAMAGNETIC





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