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# Газоанализаторы (опасная зона) SERVOMEX

# SERVOTOUGH Oxy 1800





SAFE AREA



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

Designed to reliably measure percent O<sub>2</sub> in many safety critical industrial applications, the Oxy 1800 is a stable, accurate and highly specific O<sub>2</sub> 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	MEASURES	APPLICATION
 OXYGEN	 PERCENT	 PROCESS CONTROL
		 SAFETY

### SENSING TECHNOLOGY

PARAMAGNETIC



# SERVOTOUGH Oxy 1900





HAZARDOUS AREA



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

Offering an exceptional range of industry-standard options and three unique, ground-breaking functions, the Oxy 1900 O<sub>2</sub> 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	MEASURES	APPLICATION
 OXYGEN	 PERCENT	 PROCESS CONTROL
		 SAFETY

### SENSING TECHNOLOGY

PARAMAGNETIC



# SERVOTOUGH OxyExact 2200





HAZARDOUS AREA



## 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 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% O<sub>2</sub> and pressures of up to 40psi
- High temperature version eliminates the need to condense hot sample prior to analysis

GAS	MEASURES	APPLICATION
 OXYGEN	 PERCENT	 PROCESS CONTROL
		 SAFETY

### SENSING TECHNOLOGY

PARAMAGNETIC



## SERVOTOUGH SpectraScan 2400

HAZARDOUS AREA



### REVOLUTIONARY INLINE REAL-TIME ANALYSIS OF HYDROCARBON COMPONENTS C1-C6

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

- 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

GAS	MEASURES	APPLICATION
CO CARBON MONOXIDE	% PERCENT	PROCESS CONTROL
CO <sub>2</sub> CARBON DIOXIDE	CV CALORIFIC VALUE	QUALITY
C1-C6		
H <sub>2</sub> S HYDROGEN SULFIDE		

#### SENSING TECHNOLOGY

SPECTROSCOPIC



## 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 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.

- 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

GAS	MEASURES	APPLICATION
TOXIC	% PERCENT	PROCESS CONTROL
FLAMMABLE	ppm TRACE	
CORROSIVE		

#### SENSING TECHNOLOGY

GAS FILTER CORRELATION



INFRARED



## SERVOTOUGH FluegasExact 2700

HAZARDOUS AREA



### ADVANCED FLUEGAS 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.

- 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

GAS	MEASURES	APPLICATION
O <sub>2</sub> OXYGEN	% PERCENT	COMBUSTION
CO CARBON MONOXIDE	ppm TRACE	PROCESS CONTROL

#### SENSING TECHNOLOGY

CALORIMETRY



ZIRCONIA



# SERVOTOUGH LaserSP 2930

HAZARDOUS AREA



## HIGH-SENSITIVITY CROSS-STACK TDL ANALYZER

A high performance gas analyzer designed for continuous in-situ monitoring, the LaserSP 2930 delivers a fast response time and highly stable performance. Suitable for measuring a range of gases including HCl, HF, CO<sub>2</sub>, H<sub>2</sub>O, H<sub>2</sub>S, HCN, 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 2940 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 2950'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 DF-140E

HAZARDOUS AREA



### RELIABLE RESULTS IN A TESTING RANGE OF ENVIRONMENTS

The DF-140E allows for reliable oxygen measurement in a wide variety of environments, including outdoors and in explosive environments with a NEMA 7 remote sensor enclosure. Using the revolutionary non-depleting E-Sensor, the DF-140E delivers reliable readings without frequent recalibration and periodic sensor replacement.

- Long-term reliability and stability with minimal maintenance
- Durability – can be used in Class 1, Division 1 or 2 areas
- STAB-EL option allows for accurate measurement in the presence of acid gases

GAS



OXYGEN

MEASURES

ppm  
TRACE

APPLICATION



PROCESS  
CONTROL



QUALITY

✓ SENSING TECHNOLOGY

COULOMETRIC



## SERVOTOUGH DF-320E

HAZARDOUS AREA



### HIGH RELIABILITY TRACE AND PERCENT O<sub>2</sub> MEASUREMENTS IN HAZARDOUS AREA LOCATIONS

Designed for use in harsh and hazardous areas, the DF-320E uses Servomex's unique, non-depleting Coulometric sensor technology to give highly stable O<sub>2</sub> measurements, making it ideal for applications including hydrogen, propene and polyethylene production, oil refining and petrochemical process monitoring.

- Ideal analytical solution for applications including H<sub>2</sub>, C<sub>3</sub>H<sub>6</sub> and PE production, oil refining, and petrochemical process monitoring
- Microprocessor-driven for easy configuration and maintenance
- Coulometric sensor delivers accurate results with no sensor drifting, false low readings, or frequent calibration requirements

GAS



OXYGEN

MEASURES

ppb  
ULTRA TRACE  
ppm  
TRACE

APPLICATION



PROCESS  
CONTROL



QUALITY

✓ SENSING TECHNOLOGY

COULOMETRIC



## SERVOTOUGH DF-340E

HAZARDOUS AREA



### HIGH SENSITIVITY TRACE/ PERCENT COULOMETRIC OXYGEN ANALYZER CERTIFIED FOR HAZARDOUS AREA USE

Designed for heated or external locations, the DF-340E remains stable in changing sample and flow rate conditions, and is designed to provide measurements of trace or percent level oxygen in pure gas streams and multigas backgrounds. It is ideal for upset prone conditions.

- Coulometric sensing ideal for upset prone applications and compensates for sample and flow rate fluctuations
- Suitable for outdoor installation, with NEMA 4-rated sensor enclosure options
- Multiple background gas stream monitoring, with simplified ongoing maintenance requirements

GAS



OXYGEN

MEASURES

ppb  
ULTRA TRACE  
ppm  
TRACE

APPLICATION



PROCESS  
CONTROL



QUALITY

✓ SENSING TECHNOLOGY

COULOMETRIC





## SERVOTOUGH DF-370E




HAZARDOUS AREA



### DUSTPROOF, WATERPROOF, EXPLOSION-PROOF TRACE O<sub>2</sub> MEASUREMENT FOR POLYMER GRADE FEEDSTOCKS AND OTHER HIGH PURITY GASES

Microprocessor-driven for easy configuration and maintenance, the rugged DF-370E is optimized for the accurate measurement of trace and percent level O<sub>2</sub> in hazardous environments, with both the control unit and remote sensor housed in a durable NEMA 7 enclosure.

- Highly stable Coulometric sensor requires annual SPAN calibration only, with no programmed cell replacement needed
- Low detection limit of 10 ppb when operating on 0-1 ppm or lower range
- Suitable for multiple background gases with a single unit

GAS	MEASURES	APPLICATION
 O <sub>2</sub> OXYGEN	<b>ppb</b> ULTRA TRACE <b>ppm</b> TRACE	 PROCESS CONTROL  QUALITY

#### SENSING TECHNOLOGY

COULOMETRIC



## SERVOTOUGH Laser 3 Plus




HAZARDOUS AREA



### WORLD-LEADING NH<sub>3</sub> MEASUREMENT, OPTIMIZED FOR AMMONIA SLIP DeNOx APPLICATIONS

This 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.

- 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>
- Ideal for slip ammonia application on power plants and fired heaters

GAS	MEASURES	APPLICATION
 NH <sub>3</sub> AMMONIA DeNOx	<b>ppm</b> TRACE	 PROCESS CONTROL  EMISSIONS

#### SENSING TECHNOLOGY

TUNABLE DIODE LASER



## SERVOTOUGH Laser 3 Plus Combustion






HAZARDOUS AREA



### THE REVOLUTIONARY COMPACT COMBUSTION ANALYZER OPTIMIZED FOR CO, O<sub>2</sub>, 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.

- 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
- Optimized for combustion processes

GAS	MEASURES	APPLICATION
 O <sub>2</sub> OXYGEN	<b>%</b> PERCENT <b>ppm</b> TRACE	 PROCESS CONTROL  COMBUSTION
 CO CARBON MONOXIDE		
 CO+CH <sub>4</sub> CARBON MONOXIDE + METHANE		

#### SENSING TECHNOLOGY

## SERVOTOUGH Laser 3 Plus Process

HAZARDOUS AREA



### THE WORLD'S SMALLEST TDL GAS ANALYZER, OPTIMIZED FOR PROCESS O<sub>2</sub> MEASUREMENT

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.

- 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
- Suitable for a range of combustion and process control applications

GAS



OXYGEN



CARBON MONOXIDE

MEASURES

%  
PERCENT

ppm  
TRACE

APPLICATION



PROCESS CONTROL



COMBUSTION

✓ SENSING TECHNOLOGY

TUNABLE DIODE LASER



## SERVOTOUGH AquaXact 1688

HAZARDOUS AREA

COMING  
2017



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

The AquaXact 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, natural gas processing, transportation, and instrument air, with no calibration required after sensor replacement or dry-out.

- Functions as a standalone 4-20 mA transmitter or remotely interfaces with SERVOPRO MonoExact DF310E multichannel gas analyzer system
- High-performance field-replaceable sensor element unaffected by condensation and liquid water
- Stainless steel, weatherproof casing (which is Class 1 Division 2) enables operation in ambient temperatures ranging from -10C to +70C

GAS



WATER

MEASURES

DEW POINT  
ppmv

APPLICATION



PROCESS CONTROL

✓ SENSING TECHNOLOGY

Ultra-thin film Al<sub>2</sub>O<sub>3</sub>

## 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 2400
- Simple system integration

GAS



HYDROGEN

MEASURES

%  
PERCENT

APPLICATION



PROCESS CONTROL



QUALITY

✓ SENSING TECHNOLOGY

H2Scan thin film

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