



Gas	Measures	Application
Multiple	Percent Trace ppm	Process control Quality



SENSING TECHNOLOGY

Gas Filter Correlation



Paramagnetic



Trusted by plant operators and engineers for over 20 years for the analysis of flammable gas samples and trace contaminants in HyCO, syngas and gas transfer applications*

Unrivalled performance

- Industry-leading, patented Paramagnetic and GFx IR technologies for ultra-stable, accurate and selective measurements
- Manufactured by Servomex - over 70 years' experience innovating and pioneering gas analysis and thousands of units used in the field every year

Flexible

- Measures % O₂ and trace level CO, CO₂, N₂O, CH₄
- Measures up to four flammable gas streams simultaneously
- External analog input facility
- RS232/RS485 data output and Modbus communications

Easy to use

- Intuitive integrated LCD interface
- Alarm, fault and calibration history logs
- Simple calibration

Low cost of ownership

- Reduced ongoing operational needs via automatic calibration option

Benchmark compliance

- In compliance with Low Voltage, EMC and applicable EU Directives
- Suitable for use with potentially flammable samples

Key applications

- Product quality validation in hydrogen plants
- HyCO process control
- Syngas analysis
- Bottling/filling plants producing flammable gas blends

* The MultiExact 4200 is the second generation of 4200 Series analyzers from Servomex, which reliably served industry for over 20 years

For more information visit servomex.com/contact

SERVOPRO

MultiExact 4200

Product overview

Safe area

Unsurpassed performance

When you work in flammable gas production, you need an analytical solution that can adapt to varying sampling needs, with the highest performance provision and reliability. The flexibility to measure percent and trace gas levels is imperative as is the ability to monitor multiple gas streams simultaneously. No matter what your application requirements, you'll want a flexible, feature-rich device that reduces ongoing costs. We don't believe you should have to compromise.

A no compromise solution

The MultiExact 4200 is specifically designed to address your exact needs, with its combination of industry-leading patented sensing technologies - Paramagnetic and GFx IR - delivering percent and trace measurements. Added to its impressive performance capability is the flexibility to measure up to four gas streams simultaneously. This analyzer also delivers ease of use, facilitated by intuitive, engineer-friendly integrated LCD interface and a full suite of outputs including comprehensive digital communications. The MultiExact 4200 offers resilient stainless steel pipework for additional measurement robustness.

Simple maintenance and reduced ongoing costs

The MultiExact 4200 delivers an affordable low low-cost of ownership with its low maintenance requirements. The use of highly stable and ultra-selective sensing technologies with low drift helps to extend calibration periods, whilst aspects like auto-calibration simplify ongoing device operation considerably. Overall, the MultiExact 4200 provides the complete, reliable and affordable solution to flammable industrial gas production.

Useful links:



servomex.com/service



servomex.com/systems



servomex.com/expert-guidance



These analyzers are not intended for any form of use on humans and are not medical devices as described in the Medical Devices legislation or regulation.

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Technical data sheet

SERVOPRO MultiExact 4200



Specifications

Gas measured	Multiple - see below				
Technology	Paramagnetic and Infrared (GFx) for other gases				
Performance					
Gas	O ₂ (control)	CO ₂ (trace)	CO (trace)	CH ₄ (trace)	N ₂ O (trace)
Technology	Paramagnetic	Infrared (GFx)			
Range	0-100% max. 0-5% min.	0-5/0-100 ppm	0-50/0-500 ppm	0-50/0-500 ppm	0-50/500 ppm
Accuracy (intrinsic error)	<0.15% O ₂	1% rdg or <0.1 ppm*	1% rdg or <0.5 ppm*		
Repeatability	<0.1% O ₂	1% rdg or <0.1 ppm*	1% rdg or <0.5 ppm*		
Zero drift/week	0.05% O ₂	<0.2ppm	<1ppm		
T ₉₀ in secs	<15s@200ml/min	<20s@2000ml/min			
Signal outputs/inputs					
Analog output	Per measurement: 1 x 4-20mA (standard), 2 x 4-20 mA per transducer optional with addition of extra option board for 2 transducers, 1 x 0-10V (optional)				
Analog input	Up to 4 x 4-20mA inputs				
Digital input	Up to 8 digital inputs (2 per transducer)				
Relays	4 relays as standard (8 with autocal), up to 32 relays, 30V (dc or ac) /1A				
Alarms	2 alarms as standard, up to 32 alarms				
Digital communications	RS232/RS485 Modbus, PROFIBUS, Ethernet (Modbus TCP/IP)				
Sample gas					
Temperature	5°C to 40°C (41°F to 104°F)				
Dew Point	5°C / 9°F below minimum ambient				
Condition	Oil free and non-condensing				
Particulates	<1µm				
Vent	Each gas outlet should be connected to a separate atmospheric vent, free from any back pressure				
Sample flow range	500-2,000 ml/min - nominal flowrate 1,500ml/min				
Connection	Sample inlet is 1/8" NPT male Sample outlet is 1/4" NPT female				
Physical					
Size	Bench top: 432 (17) x 141.2 (5.6) x 543.6 (21.4), mm (inches), Width x Height x Depth Rack Mount: 482.6 (19) x 132.5 (5.2) x 543.6 (21.4) mm (inches)				
Weight	Main unit: approx 14kg (30.9lb)				

* Whichever is the greater

The performance specification has been written and verified in accordance with the international standard IEC 61207-1:1994 "Expression of performance of gas analyzers"

Operating environment	
Operating temperature	5°C to 45°C (41°F to 113°F)
Storage temperature	0°C to 50°C (32°F to 122°F)
Ambient pressure range	101.3 kPa ± 10% (1.013 bar ± 10%)
Relative humidity	10-90% RH, non-condensing
Altitude	-500m (below sea level) to 2000m (above sea level)
Warm-up time	Warm up time is typically <20 minutes from cold start at 20°C (68°F), may be longer for the higher sensitivity measurements with heaters. Thermal stability is typically 24 hours.
Utilities	
Power	100-240V ac, 50-60 Hz (± 10% maximum fluctuation)
Max power consumption	500VA

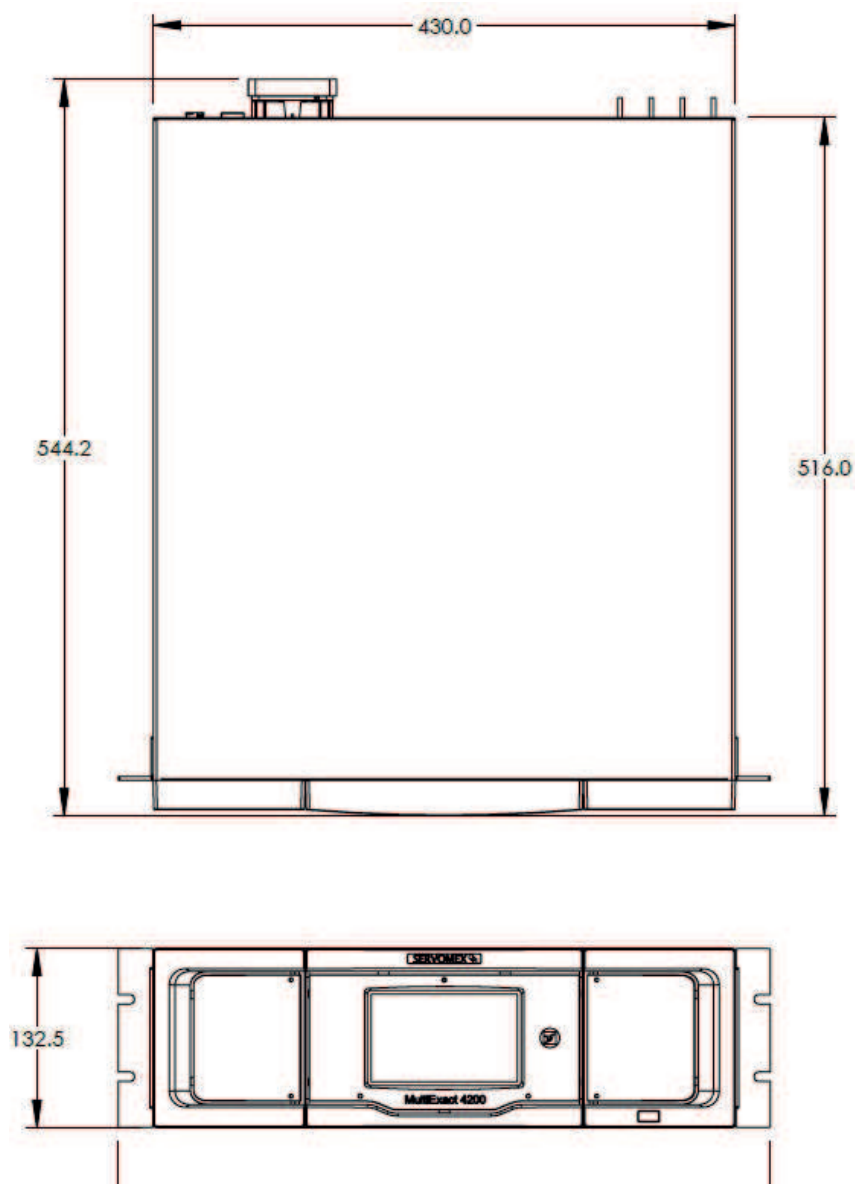
Sample wetted materials

	Control paramagnetic	1210 Series GFx NDIR transducer
303 stainless steel	•	•
316 stainless steel	•	•
Viton®	•	•
Borosilicate glass	•	
Platinum	•	
Platinum/iridium alloy	•	
Electroless nickel	•	
Gold		•
Calcium fluoride		•
Nickel		•

Compliance

EC directives	This product complies with the EMC Directive, the Low Voltage Directive, and all other applicable directives
Electrical safety	Electrical safety to IEC 61010-1 Rated for "Overvoltage Category II" and "Pollution Degree 2"

Dimensional drawings



Dimensions shown in millimetres

Options

NOTE

Some module and option combinations are not available. Please consult Servomex.

Analyzer configuration		Module 1	Module 2
Measurement	O ₂ Control 0-5/100vpm CO ₂ 0-50/500vpm CO 0-50/500vpm N ₂ O 0-50/500vpm CH ₄	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Configurable alarms	Two alarms (standard) Four alarms Eight alarms	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Isolated analog output	Isolated 4-20mA (standard)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
0-10 V dc output	Not required 0-10 V dc	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
Dual analog output	Single (standard) Dual	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
Digital input	Not required 2 digital	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
Isolated analog input	Not required Isolated 4-20mA	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>

Please tick the box for required Module 1 & 2 options

Analyzer configuration		Module 3	Module 4
Measurement	O ₂ Control	<input type="checkbox"/>	<input type="checkbox"/>
Configurable alarms	Two alarms (standard) Four alarms Eight alarms	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Isolated analog output	Isolated 4-20mA (standard)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
0-10 V dc output	Not required 0-10 V dc	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
Dual analog output	Single (standard) Dual	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> N/A
Digital input	Not required 2 digital	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
Isolated analog input	Not required Isolated 4-20mA	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>

Please tick the box for required Module 3 & 4 options

Options

General configuration		
Power cord	Not required	<input type="checkbox"/>
	USA	<input type="checkbox"/>
	Europe	<input type="checkbox"/>
	UK	<input type="checkbox"/>
Flow alarm	Not required	<input type="checkbox"/>
	Fitted to module 1	<input type="checkbox"/>
	Fitted to module 2 (coming soon)	<input type="checkbox"/>
Serial communications	Not required	<input type="checkbox"/>
	RS232 communication	<input type="checkbox"/>
	RS485 communication w/Modbus	<input type="checkbox"/>
	RS232 & RS485 comm combo	<input type="checkbox"/>
Modbus	Not required	<input type="checkbox"/>
	Required	<input type="checkbox"/>
Mounting	Bench top	<input type="checkbox"/>
	Rack mount w/ears	<input type="checkbox"/>
	Rack mount w/slides	<input type="checkbox"/>
Autocal	Not required	<input type="checkbox"/>
	Required	<input type="checkbox"/>
Relay contacts	4 relay contacts (standard)	<input type="checkbox"/>
	8 relay contacts w/connectors	<input type="checkbox"/>
	16 relay contacts w/connectors	<input type="checkbox"/>
	24 relay contacts w/connectors	<input type="checkbox"/>
	32 relay contacts w/connectors	<input type="checkbox"/>
Operator manual	English	<input type="checkbox"/>

Please tick the box for required options

We're ready to help

Whatever your gas
analysis requirements,
wherever you are.

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Analysis that **empowers**

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