SERVOPRO

Plasma

Product overview

Safe area

Gas	Measures	Application
Nitrogen	Trace ppm	Quality

SENSING TECHNOLOGY

Plasma

Key applications

- Argon production
- Truck loading
- Pure gas bottling
- Specialty gas laboratories

Reliable monitoring of N_2 in Ar, optimized for air separation unit (ASU) plant operations

Unrivalled performance

- Plasma Emission Detector (PED) sensor technology uses an intelligent micro-processor for unrivalled reliability/gas-specific selectivity
- Manufactured by Servomex - over 70 years' experience pioneering gas analysis and thousands of units used in the field every year

Flexible

- Optimized for cryogenic air separation, gas bottling applications or specialty gas laboratories requiring the continuous measurement of N_2 in Ar
- Control of External Valve Box (via RS232)
- Three measurement ranges with automatic range change function for optimal output resolution

Easy to use

- Engineer-friendly, intuitive operation with easy installation
- Simplified configuration through factory set range options

Low cost of ownership

- High accuracy PED sensing offers industry-leading reliability, maximizing device uptime and process efficiency
- Maintenance-free solution providing considerable ongoing cost reductions

Benchmark compliance

- Electrical safety to IEC 61010-1
- In compliance with Low Voltage, EMC and applicable Directives

For more information visit **servomex.com/contact**

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Safe area

Performance and accuracy you can rely on

When you work in cryogenic air separation or gas bottling plants, producing Ar, you need an analyzer that offers the most reliable and accurate continuous monitoring of N_2. The freedom to configure a suitable device easily and select one that meets your specific needs is also essential. No matter your application needs, you'll also want a device that reduces ongoing costs and deliver comprehensive remote interaction through a choice of communications platforms. And we don't believe you should have to compromise.

A no compromise solution

The Plasma is the most stable continuous N_2 in Ar and trace N_2 impurity measurement analyzer available. With easy set-up that includes configuration of three range options, this analyzer adapts to your specific application needs. The Plasma also enhances safety and reduces downtime potential through its fault alarm and contact alarm features.

Maintenance-free affordability

The Plasma provides impressive affordability to match its accuracy and measurement stability, with no ongoing maintenance requirements. The ability to remotely interact with this analyzer using a network connection delivers additional value by allowing offsite troubleshooting and parameter checking. This dramatically reduces lifetime cost-of-ownership, so you can leverage considerable savings over comparable devices.

Useful links:

SERVOMEX SERVICE NETWORK

servomex.com/**service**

SERVOMEX SYSTEMS

servomex.com/**systems**

SERVOMEX EXPERT

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.

Please note: Whilst every effort has been made to ensure accuracy, no responsibility can be accepted for errors and omissions. Data may change, as well as legislation, and you are strongly advised to obtain copies of the most recently issued regulations, standards and guidelines. This document is not intended to form the basis of a contract.

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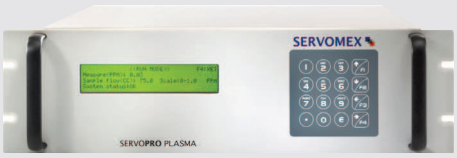
PBTDSPlasma Rev. 5 Date: 10/24

Technical data sheet

SERVOPRO Plasma



Specifications

Gas measured	**Nitrogen in pure Ar**	
Technology	Plasma Emission Detector (PED)	
Performance		
In gas stream	Ar	Ar
Range	0-1, 0-10, 0-100ppm 0-10, 0-50, 0-100ppm	0-10, 0-50, 0-250ppm 0-10, 0-100, 0-500ppm
Accuracy (intrinsic error) [1]	≤ ±1% of range [2]	≤ ±5% of range [2]
Linearity	≤ ±1% of range [2]	≤ ±5% of range [2]
Noise [1]	≤ ±1% of range [2]	≤ ±5% of range [2]
Drift (24 hours)	≤ ±1% of range [2]	≤ ±5% of range [2]
Signal outputs/inputs		
Analog output	Isolated 4-20mA autoranging	
General fault alarm	Volt free single pole relay (24VDC at 1A)	
Range change	Volt free single pole relay (24VDC at 1A)	
Concentration alarms	2 volt-free single pole relays (24VDC at 1A) for high alarm, high-high alarm	
Physical		
Size	461mm (18.1”) Wide x 133mm (5.2”) High x 483mm (19”) Deep	
Weight	15kg (33lbs)	
Sample gas		
Condition	Oil free, non-corrosive, non-condensing, non-flammable	
Particulates	Filtered to 2µm (internal filter provided)	
Vent	Vent to atmosphere	
Sample flow	25 to 150ml/min	
Sample pressure	5 to 10psig	
Connection	1/8” compression fitting	
Operating environment		
Operating temperature	+5°C to +40°C (+41°F to +104°F)	
Storage temperature	-20°C to +60°C (-4°F to +140°F)	
Relative humidity	0 to 95% RH non-condensing	
Altitude	2,000m above sea level	

[1] The accuracy may be decreased by an additional 6% maximum range at some frequencies under the influence of radiated RF fields specified for industrial environments

[2] Calibrated range

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

Utilities	
Background gas	Ar
Power	100 to 120Vac or 220 to 240Vac 50/60Hz, 45 Watt maximum consumption
Zero gas	6N Grade Ar
Span gas	At least 80% FSD N_2 in Ar

Sample wetted materials

Analyzer fitted with	Stainless steel Nylon Aluminium Brass Viton Quartz PTFE

Options

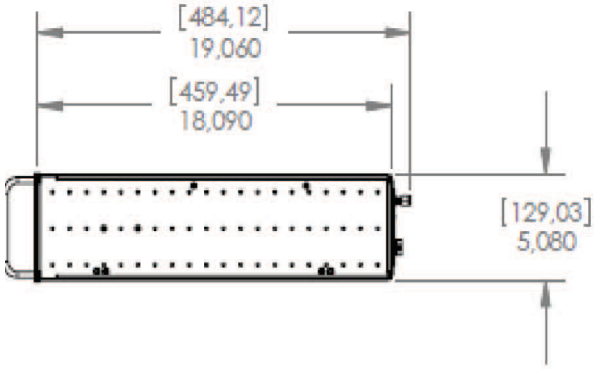
Description		
Power	There are 3 options for the power lead:	American (110V) ☐ European (220V) ☐ UK (240V) ☐
Background gas		Ar ☐
Autocalibration	Option for autocalibration, fitted with internal valves for zero and span *	Autocal ☐
Digital output	Optional RS232 (continuous ASCII)	RS 232 ☐
External valve box	Controls external valve box via RS232 (only available if autocalibration not selected)	Ext valve box ☐
Range options	There are 4 range options: 0-1, 0-10, 0-100 ppm * ☐ 0-10, 0-50, 0-100 ppm ☐ 0-10, 0-50, 0-250 ppm ☐ 0-10, 0-100, 0-500 ppm ☐	

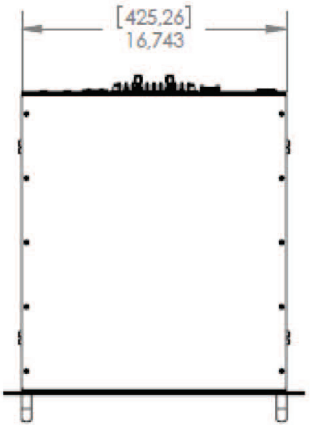
* Autocalibration only available on 0-1, 0-10, 0-100 ppm option

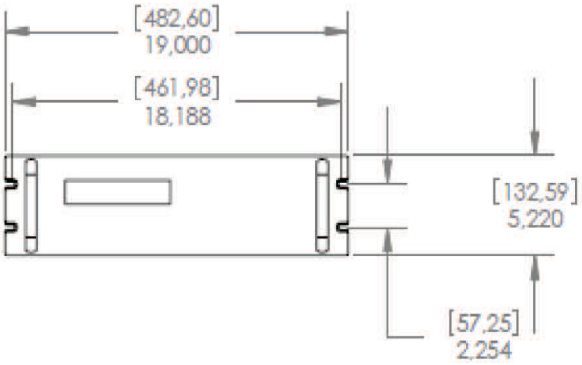
Compliance

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
(dimensions in square brackets are in inches)

We're ready to help

Whatever your gas analysis requirements, wherever you are.

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PBTDSPlasma Rev. 5 Date: 10/24

Analysis that **empowers**

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