SERVOPRO
MonoExact

SINGLE-MEASUREMENT DIGITAL GAS ANALYZER OPTIMIZED TO MEET THE PROCESS CONTROL AND PRODUCT QUALIFICATION NEEDS OF INDUSTRIAL GAS PRODUCERS AND CUSTOMERS

SERVOPRO MonoExact

The MonoExact is a compact, high performance analyzer, optimized to meet the specific needs of Industrial Gas producers who prefer single-measurement analysis solutions. The MonoExact offers class-leading measurements for Ar, He, N_2 and H_2 - and provided by Servomex's groundbreaking new TruRef Thermal Conductivity (TCD) sensing technology.

The MonoExact provides an enhanced-user experience with its easy set-up, intuitive use, flexible mounting options and broad range of digital communications protocols. It provides an attractive cost reduction through ongoing operational benefits like extended calibration, facilitated by its low-drift, high stability sensing and auto-validation/calibration function.

FLEXIBLE

- Optimized for process control and product qualification applications
- Wide range of measurements includes He in N_2, He in O_2, H_2 in Ar, H_2 in N_2, N_2 in Ar, N_2 in air, and Ar in O_2
- Flexible mounting: half 19" rack for benchtop use or in 19" panel (two devices can fit in one 19" panel slot)
- Communications include Modbus, Profibus and Ethernet protocols plus RS232/RS485 serial data output

EASY TO USE

- Simple installation with intuitive and easy operation
- Integrated datalogging for alarm, fault and calibration history logs
- Small and compact footprint for easy integration

LOW COST OF OWNERSHIP

- Reduced ongoing operational needs via auto-validation/calibration options
- Extended calibration periods from ultra-stable TruRef TCD sensing technology
- Easy engineer-optimized set-up and installation
- Intuitive interface reduces training requirements

UNRIVALLED PERFORMANCE

- Uses industry-leading, patented TruRef (TCD) non-depleting technology for ultra-stable, accurate and selective measurements
- Manufactured by Servomex - over 60 years' experience innovating and pioneering gas analysis and thousands of units used in the field every year

BENCHMARK COMPLIANCE

- In compliance with Low Voltage, EMC and applicable Directives

Learn more about the SERVOPRO MonoExact
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ANALYZERS
HIGH-PERFORMANCE GAS ANALYSIS

HIGH PERFORMANCE ACCURACY

ASU operators requiring accurate process control and product qualification need analyzers that deliver the highest reliability and guaranteed measurement performance. You'll want a solution completely optimized to your application needs, with flexible communications, versatile features and low maintenance requirements. No matter your application requirements, you'll also want a device that delivers low cost-of-ownership across a long product lifetime. We don't believe you should compromise.

A NO COMPROMISE SOLUTION

The MonoExact is a no compromise solution, specifically innovated to address ASU applications where operators specify a single measurement solution - avoiding the loss of multiple measurements caused when multigas analyzers go offline. Simple to install, this compact, small footprint analyzer delivers the ultra-accurate, high reliability monitoring capability you demand. The MonoExact is easily customized to specific applications though a range of gas measurements, now augmented by patent TruRef TCD technology, the next-generation replacement for unreliable katharometer-based sensors.

SIMPLE MAINTENANCE AND REDUCED ONGOING COSTS

The MonoExact adds even more value by optimizing process efficiencies while reducing ongoing maintenance costs. An optional auto-validation/calibration card helps to permit simplified, remote device interaction, while high quality, non-depleting sensing technologies minimize calibration requirements through low-drift enhanced stability. Combined, the MonoExact is the analyzer that truly addresses ASU operator needs, providing the exact-fit analytical solution for a wide range of applications.

ALTERNATIVE PRODUCTS

The SERVOPRO and DF-SERIES product ranges feature a variety of analyzers designed to meet your application needs.

MultiExact 5400

Delivering high performance monitoring across a range of gases, the MultiExact's dual measurement capability benefits from a choice of four leading-edge sensing technologies, including TruRef TCD sensors.

FID

A Flame Ionization Detector analyzer designed to assure safe operation for cryogenic Air Separation plants, the FID ensures THC levels are maintained below safe limits, as well as providing quality control in pure O_2, N_2, Ar, and Air.

DF-310E

The DF-310 series is a full-featured, microprocessor-based O_2 analyzer that uses unique, non-depleting coulometric E-sensor technology, enabling O_2 measurements at %, trace and ultra-trace levels.

KEY APPLICATIONS

- Validation on industrial processes
- Process control on air separation plants
- Bottling/filling plant applications
- Hydrogen purity
- Helium production

SERVOMEX TECHNOLOGIES

ZIRCONIA   GAS FILTER CORRELATION   CALORIMETRY   THERMAL CONDUCTIVITY   PARAMAGNETIC   INFRARED

OPTIONS	DESCRIPTION	SPECIFICATION
Analog output	1 x mA output or 1 x Voltage output	Isolated 4-20mA/0-20mA Isolated 0-10v
Output range	Analogs output parameters	User selectable over the measurement range
Alarms and status relay cards	4 x volt free single pole relays	30V dc 1A. 4 x volt-free single pole relays (30V at 1A) for high alarm, low alarms, service in progress, maintenance required. NAMUR compliant
Auto-validation / calibration card	Controls calibration gas and helps to facilitate simplified ongoing maintenance	3 volt-free single pole relays (30V at 1A) for sample stream, low cal gas, high cal gas. 3 colt-free switched inputs, closure to activate. Autoval/autocal configures: configures: initiate low cal, initiate high cal, initiate "service in progress"
Sample system	Pressure driven or Flow driven	–
Digital communications	Complete suite of options to suit site needs	Modbus (RS485) Profibus (RS485) Ethernet (Modbus TCP)
Serial output	Continuous output	ASCII output on RS232
Mounting	Benchtop, panel mount or rack mount	Half 19" rack for benchtop use or mount in a 19" panel. Two devices can fit in one 19" panel slot
Power lead	3 options	Choose from UK, European or North American formats

ACCESSORIES	ACCESSORIES AVAILABLE FOR SPECIFIC APPLICATIONS – CONTACT YOUR LOCAL SERVOMEX BUSINESS CENTER

MONITORING PERFORMANCE

Gas	Ar in N_2, O_2 or air	N_2 in Ar	He in N_2	He in O_2	H_2 in Ar	H_2 in N_2	H_2 in CO
Technology	Thermal conductivity (TCD)	Thermal conductivity (TCD)	Thermal conductivity (TCD)	Thermal conductivity (TCD)	Thermal conductivity (TCD)	Thermal conductivity (TCD)	Thermal conductivity (TCD)
Range	0-10%/ 20%/ 50%/ 100% 80%/90% - 100%	0-10%/ 20%/ 50%/ 100%	0-2%/ 5%/10%/ 20%/50%/ 100% and 80%/90% - 100%	0-2%/ 5%10%/ 20%/50%/ 100% and 80%/90% - 100%	0-20%	0-1%/ 2%/ 5%10%/ 20%/50% /100% and 90% - 100%	0-1%
Accuracy (intrinsic error)	<1% span	<1% span	<1% span	<1% span	<1% span	<1% span	<1% span
Repeatability	<0.5% span	<0.5% span	<0.5% span	<0.5% span	<0.5% span	<0.5% span	<0.5% span
Zero drift/week	1% FS/ month	1% FS/ month	1% FS/ month	1% FS/ month	1% FS/ month	1% FS/ month	1% FS/ month
T_{90} in secs @ 150ml/min	<15	<15	<15	<15	<15	<15	<15

TUNABLE DIODE LASER   FLAME IONISATION DETECTOR   GAS CHROMATOGRAPHY   PLASMA   LASER MOISTURE   COULOMETRIC   SPECTROSCOPIC

SAMPLE FOR MEASUREMENTS

Sample gas	5°C - 45°C (41°F - 113°F)
Vent	Vent to atmosphere
Sample pressure	35 ±21kPa (5±3 psig)

DEVICE SPECIFICATION

Size:
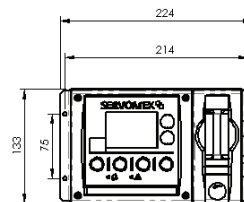
- 230mm (9") Wide x 133mm (5.2") High x 478mm (18.8") Deep
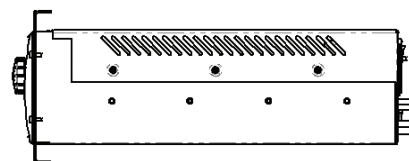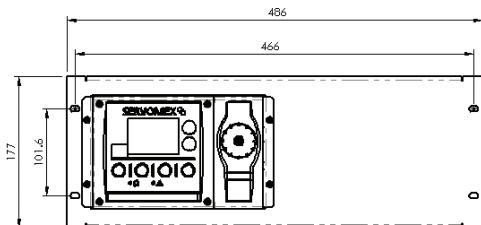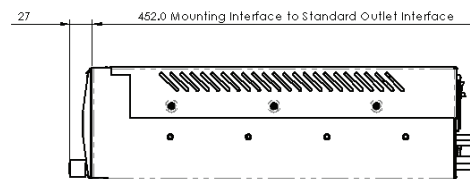
Weight:

- <7.5kgs

Certifications:

- In compliance with Low Voltage, EMC and applicable Directives

DEVICE SCHEMATIC

224
214
133
75

All dimensions shown in millimetres

27
452.0 Mounting Interface to Standard Outlet Interface

486
466
177
101.6

These analyzers are not intended for any form of use on humans and are not medical devices as described in the Medical Devices Directive 93/42EEC.

Please note: *This document was updated in August 2014. While every effort has been made to ensure accuracy, no responsibility can be accepted for errors or 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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