SERVOMEX 2700C
COMBUSTION GAS ANALYZER
for continuous measurement of oxygen and/or combustibles (COe) and enable increased combustion efficiency

- Unique close coupled, low extracted volume design protects sensors and provides fast, in-phase O₂ and COe measurement without probe blockages
- Long life, low drift zirconia and catalytic sensors
- Protective, BASEEFA tested flametraps as standard
- Wide variety of probes and flanges
- Configurations for safe or hazardous area use
- Proven applications include power generation boilers, process heaters, thermal crackers and incinerators

SPECIFICATION

GASES MEASURED

<table>
<thead>
<tr>
<th>TECHNOLOGY</th>
<th>Oxygen (O₂)</th>
<th>Combustibles (COe - Carbon Monoxide Equivalent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SENSOR VARIANT</td>
<td>Zirconium oxide (zirconia)</td>
<td>Patented thick film catalytic sensor</td>
</tr>
<tr>
<td>Typical fuels</td>
<td>All</td>
<td>High Range (1750/703)</td>
</tr>
</tbody>
</table>

PERFORMANCE

<table>
<thead>
<tr>
<th>Min. recommended range: 0-1% O₂</th>
<th>0-500ppm</th>
<th>0-1500ppm</th>
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<tbody>
<tr>
<td>Max. COe in stream: Not applicable</td>
<td>2000ppm</td>
<td>6000ppm</td>
</tr>
<tr>
<td>Intrinsic error (accuracy): ±1% of reading or ±0.1% O₂*</td>
<td>±25ppm or ±5% of reading*</td>
<td>±75ppm or ±5% of reading*</td>
</tr>
<tr>
<td>Recommended resolution: 0.01% O₂</td>
<td>1ppm</td>
<td>10ppm</td>
</tr>
<tr>
<td>Sensor head response time (T₉₀): &lt;10 seconds</td>
<td>&lt;20 seconds</td>
<td>&lt;20 seconds</td>
</tr>
<tr>
<td>Typical calibration period: 12 months</td>
<td>2 months</td>
<td>2 months</td>
</tr>
</tbody>
</table>

SIGNAL INPUTS/OUTPUTS

- Analog Outputs: One configurable isolated 0/4-20mA per measurement (impedance 600 Ω or less)
- O₂ output configurable from 0-1% min. to 0-25% max. O₂ in 1% steps
- COe output configurable from 0-500ppm to 0-15,000ppm (measurement range remains as above)
- Alarms & Relays: Four SPCO relays (250V ac/3A or 28V dc/1A max), configurable for Concentration Alarms, Faults, In Calibration, In Blowback, and solenoid valves for blowback and autocalibration
- Digital Inputs: Two non-isolated digital inputs provided to initiate autocalibration and perform blowback

PHYSICAL

- Ingress Protection: IP66/NEMA 4X
- Weight: Control Unit: <24.3lbs (<11kg) Sensor Head, dual transducer: <37.5lbs (<17kg)
- Mounting: Wall mounting sensor head, and wall mount 19’ rack or panel mount control unit, with a wide choice of probes, mounting flanges and adaptors to assist retrofitting. See over for dimensions and more details

ENVIRONMENTAL

- Area classification: Versions available for safe and hazardous areas (see over for details)
- Ambient temperature: Sensor head -4°F to +158°F (-20°C to +70°C) Control unit +14°F to +131°F (-10°C to +55°C)
- Altitude: Maximum 6500ft (2000m)

* whichever is greater
† Consult Servomex for high sulphur (> 4%) and other applications
SERVOMEX 2700C COMBUSTION GAS ANALYZER

The Servomex 2700C provides a fast, accurate and low maintenance solution for determining conditions in combustion processes. Such processes must normally run with excess oxygen levels and Servomex zirconia oxygen sensors have an enviable reputation for lifetime and resilience. In addition, when measured in phase with oxygen levels, early detection of combustibles breakthrough can allow many processes to be run at lower excess oxygen levels, reducing fuel costs and harmful emissions. Traditionally, problems encountered in combustion analysis included slow, inaccurate or short lifetime sensors and the inability to sample gases reliably, especially when hot, dusty or corrosive.

By design the Servomex 2700C overcomes these obstacles and has been proven as a reliable, low cost of ownership analyzer that enables users to make real savings. In the latest “C” version installation has been simplified and measurement performance even further enhanced.

DIMENSIONS

Typical analyzer mounting orientation with 4” ANSI flange. Other flanges are available

Max. separation of sensor head and control unit:
- O₂ only 300m
- CO₂e only / Dual 100m

APPROVALS (OTHER THAN GENERAL PURPOSE / SAFE AREAS)

Control unit:

- EUROPE - ATEX Group II, Category 3 Gases and Dusts (Zone 2)
- USA - Class I and II, Div. 2 and Class III, Div. 1 and 2
- CANADA - Class I, Div. 2; Class II, Div. 1 and Class III, Div. 1

Sensor head:

- EUROPE - ATEX Group II, Category 3 Gases (Zone 2) when fitted with a suitable purge
- USA - Class I and II, Div. 2 and Class III, Div. 1 and 2 when fitted with a suitable purge

Performance:

TÜV tested and notification by BMU to the requirements of BlmSchV 13 (large combustion plant) and 17 (waste incineration and similar processes).

EAME (Europe, Africa and Middle East):
Servomex Group Limited, Jarvis Brook, Crowborough, East Sussex, TN6 3DU, England

Servomex GmbH, Münsterstraße 5, 59065 Hamm, Germany

Servomex S.A., 8 Rue Proudhon, B.P. 50, 93212 St Denis La Plaine Cedex, France

Servomex B.V., Stephensonstraat 20, 2723 RN Zoetermeer, Netherlands

Servomex Group Limited, SAIF Zone, Executive Suites Z1-56, PO Box 8962, Sharjah, UAE.

Servomex Asia Pacific Ltd, Building 9, Shanghai Euromate Industrial Park, No.88 Lane 2888 Huai Ning Road, Xinzhuang Industrial Park, Shanghai 201108 PR China

Servomex Asia Pacific Ltd, 7F, No.88, Sec 6, Chung Shan N. Rd., Taipei, Taiwan

Servomex India, (Spectris Technologies Pvt.Ltd) 7th Floor, Sunil Enclave, CTS No.307, Village Gundavli, Shivaji & Periera Hill Road Junction, Opp. Landmark Building, Off Andheri Kurla Road, Andheri (East), Mumbai 400 099, India.

Servomex Japan, (Spectris Co.Ltd) 1F KDX Kaji-cho Bldg., 3-5-2 Kandasakai-chou, Chiyoda-ku, Tokyo 101-0045, Japan

Global email: info@servomex.com

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