

SERVOTOUGH Fluegas (2700C)

COMBUSTION GAS ANALYSER

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	Oxygen (O ₂)	Combustibles (COe - Carbon Monoxide Equivalent)
TECHNOLOGY	Zirconium oxide (zirconia)	Patented thick film catalytic sensor
Typical fuels	All	<2.5% sulphur gas, oil and coal ¹
PERFORMANCE		
Min. recommended range:	0-1% O ₂	0-500ppm
Max. COe in stream:	Not applicable	6000ppm
Intrinsic error (accuracy):	±1% of reading or ±0.1% O ₂ *	±25ppm or ±5% of reading*
Recommended resolution:	0.01% O ₂	1ppm
Sensor head response time (T ₉₀):	<10 seconds	<20 seconds
Typical calibration period:	12 months	2 months
SIGNAL INPUTS/OUTPUTS		
Analogue Outputs:	One configurable isolated 0/4-20mA per measurement (impedance 600 Ω or less) O ₂ output configurable from 0-1% min. to 0-25% max. O ₂ 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: <11kg (<24.3lbs) Sensor Head, dual transducer: <17kg (<37.5lbs)	
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 -20°C to +70°C (-4°F to +158°F) Control unit -10°C to +55°C (+14°F to +131°F)	
Altitude:	Maximum 2000m (6500ft)	

* whichever is greater

¹ Consult Servomex for high sulphur (> 2.5%) and other applications

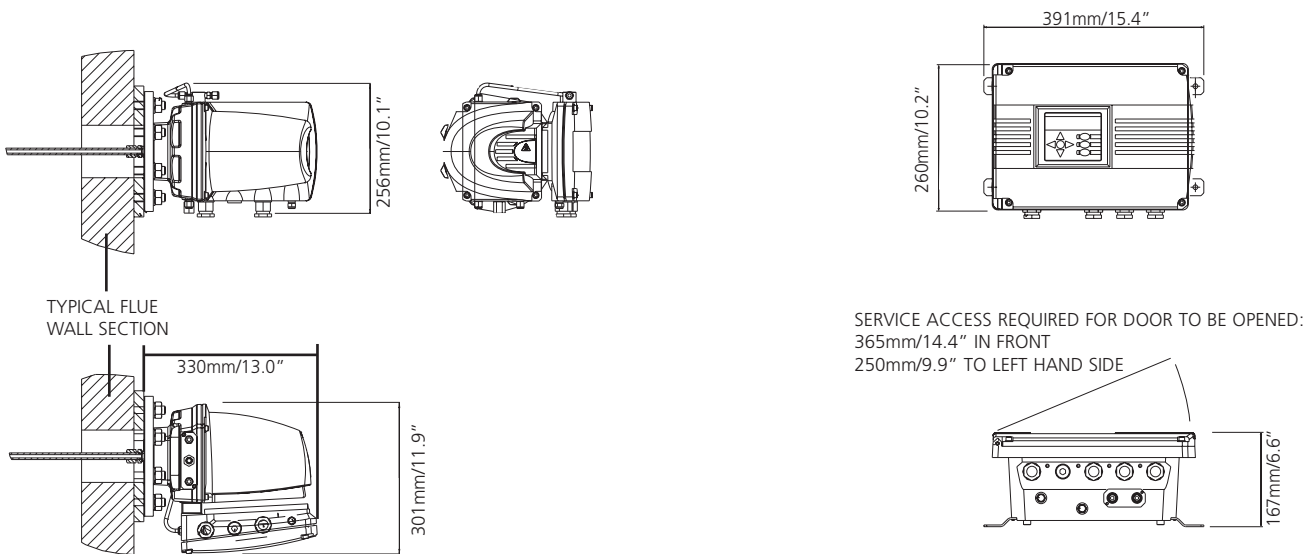
SERVOMEX

SERVOTOUGH FLUEGAS (2700C) COMBUSTION GAS ANALYSER

The SERVOTOUGH Fluegas (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 SERVOTOUGH Fluegas (2700C) overcomes these obstacles and has been proven as a reliable, low cost of ownership analyser that enables users to make real savings. In the latest "C" version installation has been simplified and measurement performance even further enhanced.

DIMENSIONS

Typical analyser mounting orientation with 4" ANSI flange. Other flanges are available
Max. separation of sensor head and control unit: O₂ only 300m COe 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 1, 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 BImSchV 13 (large combustion plant) and 17 (waste incineration and similar processes).

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