

Complete Continuous Emission Monitoring System **SGS 100**

Simultaneous measurement of 7 gas components:
O₂, CO, CO₂, NO, NO₂, SO₂, CH₄ (or C₃H₈) and other upon request.

Screen menu in several languages

Highly adaptive system suits the customer's needs and the place of measurement in the best way.

Standardised 19" racks are mounted in a steel metal enclosure with fixing eyelets for wall mounting. The enclosure is equipped with lockable, transparent door, a main control unit with color LCD with touchscreen and keyboard.

The complete gas conditioning system is processor controlled and continuously monitored. It uses an electric gas cooler with an automatic condensate draining pump; sample gas filtration with sample flow monitoring and alarm; auto-zero calibration, RS 485 and Ethernet for data communication and configurable analog and relay outputs

For outdoor use the enclosure may be equipped with air conditioning system

SGS100 offers industrial probes for high and low dust content, for gas temperatures for up to 650 °C (stainless steel), for up to 1.100 °C (Inconel steel) and for up to 1.700 °C (ceramic). Probes may be with and without heated filter element, back purge option with probe tubes in several lengths.

The **SGS100** is easy to open. All important parts are readily accessible and easily serviced.



Measured components

Electrochemical cells	
Gas	Range*
CO	0-4000 ppm
NO	0-2000 ppm
NO ₂	0-500 ppm
SO ₂	0-2000 ppm

The oxygen analysis is based on zirconium cell, paramagnetic cell, electrochemical cell or innovative Luminiscent cell

*(Other gasses upon request)

IR modules	
Gas	Range*
CO	0-5000 ppm
CO	0-30%
CO ₂	0-80%
CH ₄	0-30000 ppm
CH ₄	0-5%
C ₃ H ₈	0-10000 ppm
NO	0-2000 ppm
NO ₂	0-500 ppm
SO ₂	0-5000 ppm

General specifications	
Warm-up time	1h minimum
Sample gas conditioning	integrated gas cooler with dew point = +3 °C
Sample gas filtration	filtering particle size < 1µ
Sample gas monitoring	flow regulation and supervision, 30 ... 50 l/h
Calibration	By software, calibration gases for every gas required, instrument air or clean ambient air for auto-zero
Operating temperature	+5 °C ... +40 °C, max. 90 % rh, not condensing
Storage temperature	-20 °C ... +50 °C
Ambient conditions	not for use in aggressive, corrosive or very high dust ambience. Hazardous area use only with special equipment (on request).
Display	LCD touchscreen display
Resolution	depends on range selection, ppm or %
Data transfer	Configurable analog outputs 4 ... 20 mA, MODBUS over RS-485 and Ethernet
Alarm relays	3x potential free NO contacts
Power supply	110 ... 230 Vac / 50 ... 60 Hz / 500 ... 750 W, with heated hose control (option) add 100 W/ meter
Protection class	IP 52 (IP 65 for outdoor mounting cabinet)
Weight	approx. 40 ... 120 kg, depending on system configuration
Dimensions	(H x W x D) 1.012 x 600 x 575 mm = steel enclosure for indoor mounting (H x W x D) 1.300 x 800 x 600 mm = enclosure for outdoor mounting

Some of SGS 100 applications:

- Boiler monitoring
- Power generation
- Oil and gas industry
- Metalurgy
- Chemical industry
- Incineration
- Glass and ceramics manufacturing
- Cement industry
- Pulp and paper industry
- Breweries



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