

- Sampling Conditioning Systems
- Process Analytics
- System Integration
- Gas Generators
- FTIR-Analyser

analysing systems

CONTINUOUS EMISSION MONITORING SYSTEM MGS300



FEATURES

- ◆ multi-component measurement system
- ◆ hot and wet measurement
- ◆ turn key solution
- ◆ high-resolution FTIR technology
- ◆ ZrO₂ sensor for oxygen measurement
- ◆ integrated FID technology
- ◆ remote diagnostics
- ◆ very low maintenance

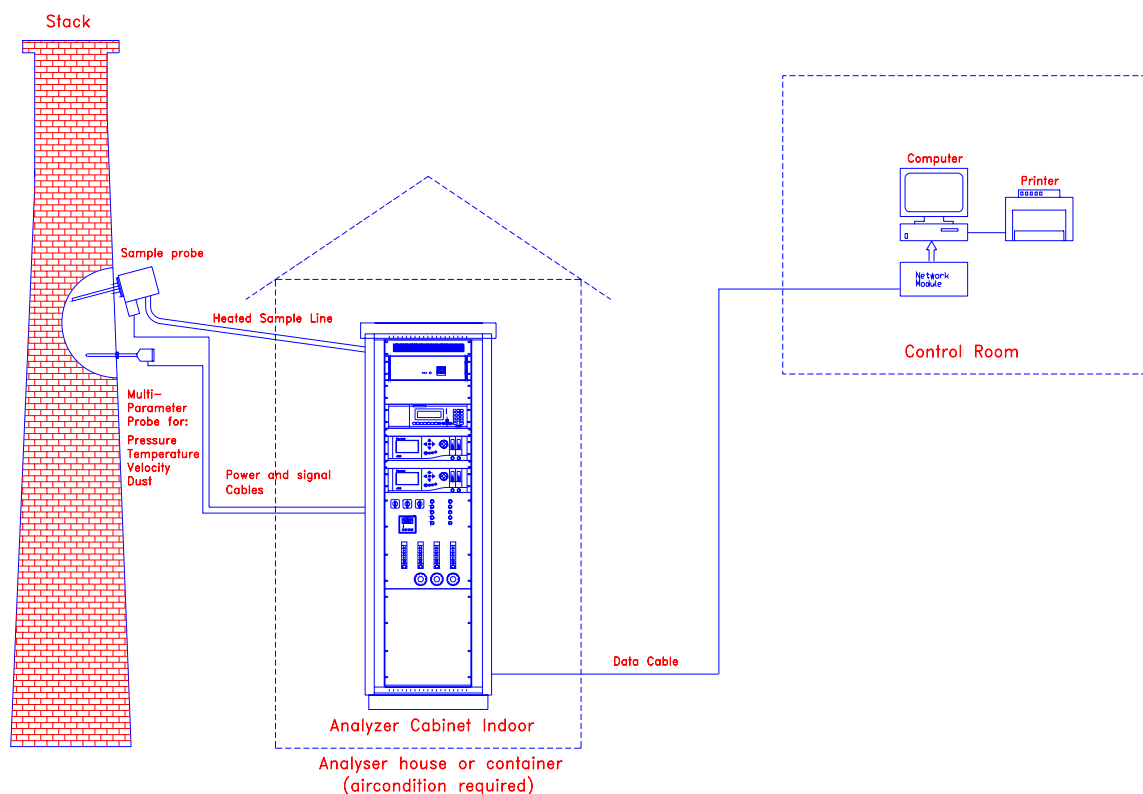
The MGS300 has been designed to provide reliable Continuous Emission and Process Monitoring (CEM). The system is used for continuous multi component measurement in hot, wet and corrosive gas streams. Typical application includes Emission Monitoring in Incinerators or Cement plants. All parts of the MGS300 such as sampling system and the FTIR analyser cell are consequently heated up to 180°C. Typical monitoring components include HCL, HF, NH₃, H₂O, NO, NO₂, N₂O, SO₂, CO, CO₂, O₂ and TOC. Additional components can be added on easily.

The MGS300 incorporates a high resolution MG-FTIR (Fourier Transform InfraRed) Analyser, MGS300-Industrial PC, user friendly MGS300 Software and the MGS300 Heated Sampling System JHSS. The MGS300 Heated Sample System JHSS features a maintenance free unique Sample „Pump“ without moving parts. The Oxygen Sensor can additionally be integrated into the MG-FTIR and a Total

HydroCarbon Analyser for VOC/TOC monitoring can be installed optionally. The special designed JES300 -FTIR Heated Sample Probe and JH300C Heated Sample Line are additional parts of the MGS300 System. All parts are mounted into a 19" rack and installed on a swing frame for easy access to all components.

The MGS Software controls the CEMS from automatic start and ensures reliable, safe and continuous operation. The measurement datas are transmitted from the PC either with an analogue output of 4-20 mA or with digital output. The alarm status can be transferred by isolated relay contacts and are logged in the event list of the MGS300 Software. In case if any alarm is activated the MGS300 will be purged with clean dry air automatically in order to prevent any corrosion or condensation either in one of the system components or in the FTIR measurement cell. The system offers a remote service access.

TECHNICAL DATA



SPECIFICATIONS

Measuring principles	FTIR (for infrared active gases) FID (organic C), zirconia oxygen (O ₂)
Data transmission	0/4-20mA galvanic isolated or digital data transmission
Signals	potential free status contacts
Protection class	IP54

SPECIFICATIONS

Power supply	400/240VAC, 50Hz
Power consumption	approx. 3...6kW depending on configuration
Dimensions	1200 x 2100 x 800 mm (WxHxD)
Weight	approx. 450kg
Cabinet	painted mild steel, RAL 7035
Container for outdoor installation on request	

RANGES (TYPICAL CEM APPLICATION)

Component	min/max
Hydrogen chloride HCl	0-15/0-1.000 mg/m ³
Hydrogen fluoride HF	0-10/0-500 mg/m ³
Sulfur dioxide SO ₂	0-75/0-5.000 mg/m ³
Carbon monoxide CO	0-75/0-10.000 mg/m ³
Carbon dioxide CO ₂	0-1/0-35 vol.%
Nitric oxide NO	0-200/0-5.000 mg/m ³

RANGES (TYPICAL CEM APPLICATION)

Component	min/max
Nitrogen dioxide NO ₂	0-50/0-5.000 mg/m ³
Nitrous oxide N ₂ O	0-20/0-5.000 mg/m ³
Ammonia NH ₃	0-15/0-500 mg/m ³
Water H ₂ O	0-25/0-60 vol.%
Oxygen	0-25 %
TOC (VOC)	0-10/0-100.000 mg/m ³

Specification subject to change without notice.

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