SM-5

MERCURY CEMS **ANALYZER**

envea
Elevating standards. For life.

Providing QAL1-certified, continuous mercury monitoring at the lowest certified rang. It delivers ultra-low uncertainty, reliable compliance, and high-quality data at BAT-level emissions

FEATURES AND BENEFITS

- QAL1 certification range 0-5 µg/m^3, the lowest on the market
- Dynamic range switching for reliable measurement of Hg peak emissions
- Low instrument air consumption to ensure very low maintenance costs
- High temperature conversion method meaning requires no reagent, water refill or cartridge replacement
- Modular mercury injection system at the probe or at the analyzer for complete AMS checks
- Probe head port for optionally connecting a calibration system
- Over 20 years of expertise in mercury analysis to guarantee high quality and high performance
- High measurement accuracy



COMPLIANT WITH:
EN 15267, EN 14181,
2001/80/CE,2000/76/CE

TÜV Rheinland
TÜV CERTIFIED
EN 15267-3

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TECHNICAL **SPECIFICATIONS**

Certified measuring range	0 - 5 µg/m³ Hg (QAL1)
Additional measuring ranges	0-30; 0-45; 0-100; 0-1000 µg/m³
Table Detection limit	< 0,05 µg/m³ (System)
Precision	< 0,1 µg/m³ / 3 Month
Max. drift	< 0,15 µg/m³ / 3 Months
Response time	< 180 sec t[90]
Operating temperature (without heating/AC)	+5°C bis +40°C
Max sample temperature	+200°C (others as option)
Display	Touchscreen
Heated sampling line	Custom-made: 2 to 60 m
Communication	Analogue: 4-20 mA, serial: RS232, Modbus RTU/RS485, Modbus TCP/IP, USB, TCP-IP
Power supply	230 V / 50 Hz or 110 V / 60Hz
Power consumption	Analyzer cabinet: 1850 W Sampling box: 800 W Probe: 600 W (0,6m), 800 W (1m) or 1200 W (1,5m) Heated sampling line: 120 W/m
Air consumption	5-10 bar, max. 16 L/min (for backflush)
Mounting flange	DN65 / PN6, other on request
Dimensions (H x W x D) cm	Analyzer cabinet: 190.5 x 80 x 65 Sampling box: 26 x 34 x 34.5 Probe controller: 25 x 35 x 15
Weight	Analyzer cabinet: 224 kg Sampling box: 15,4 kg Probe controller: 10 kg Stinger: 9kg (0,6m) or 10.6kg (1m)
Protection Rating	Analyzer cabinet IP55 Sampling box IP54 Probe controller IP66

MEASURING **TECHNIQUE**

Continuous real-time monitoring

Unlike periodic or manual sampling, the SM-5 delivers continuous mercury data — essential for proactive compliance, trend analysis, and early detection of emission spikes.

High data quality & stability

Designed for stack environments, it maintains stable baseline performance even with challenging gas matrices, reducing drift and the need for frequent recalibration.

Total mercury detection

The SM-5 quantitatively measures total mercury rather than just one species, giving a complete compliance picture.

Advanced interference handling

Built-in compensation for moisture and key interferents (e.g., SO_2, NOx, HCl) supports accurate trace-level measurement in real flue gas.

MAIN **OPTIONS**

- Other measuring ranges than specified
- Remote access for telemaintenance
- External HovaCal calibration system
- Reversible air conditioning (A/C) for analyzer cabinet (energy consumption: 650W, weight: 41 kg)

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SM-5 Datasheet
SM-5 Mercury CEMS Analyzer - Specifications subject to change without notice.