AMESA-B

BIOGENIC CO_2 CONTINUOUS MONITORING **BY LONG-TERM SAMPLING**

envea
Elevating standards. For life.

The gold standard method for plant operators to quantify how much CO_2 they emit for credible carbon accounting and reporting

FEATURES AND BENEFITS

- Determines an accurate amount of generated renewable energy
- Precise measurement over a period of up to one month
- The sampling principle fulfils the requirements of EN ISO 13833
- Avoidance of inaccurate measurements from estimations and calculations of biogenic CO_2 vs fossil-derived CO_2



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THE **OPPORTUNITY**

There is growing interest for governments and plant operators to determine the fraction of “green” energy. But in incineration/co-incineration and Refuse-Derived Fuel (RDF) plants it is quite difficult to determine the biogenic fraction of the emitted CO_2 Fossil material and therefore fossil fuel does not content C^{14}.

With the determination of the C^{14}-fraction of the emitted CO_2 it is then possible to determine the biogenic fraction of burned fuel.

The AMESA B is then the ideal tool to determine the biogenic fraction of burned fuel with a high accuracy.

- Adsorption of CO_2 in an adsorption trap filled with Ascarite or soda lime
- After the sampling period, the adsorber cartridge is exchanged and sent to an accredited laboratory to determine the ratio of biogenic and fossil-derived CO_2 by a C^{14} dating measurement
- Volume proportional extraction of a part of the flue gas via a heated sampling probe
- Sampling period of several hours to 1 month
- The sampling principle fulfils the requirements of EN ISO 13833

TECHNICAL **SPECIFICATIONS**

Operating temperature wo heater & AC	+5°C to +38°C (40°F to 100°F)
Protection class	IP66 (NEMA 4X) Fiber Glass Enclosure
Max. length of umbilical	20 m
Sampling flow rate	5- 50 sml/min
Dimensions (H x L x W)	1000 x 800 x 300 mm
Weight	70 Kg
Power supply	120/240 VAC (optional 115 VAC) 50/60 Hz
Power consumption (heaters excluded)	approx. 0.5 kW
1-2 probe heaters	max. 1.2 kW (up to 3 kW per heater)
1 umbilical heater	max. 1 kW
External fuse by max. power of heaters	32 A
Operation and communication	touch panel and DAS - Modbus TCP

- External values input as e.g. stack volume flow by 4-20mA or Modbus
- Outputs as e.g. run, break, alarm as potential free contacts or Modbus
- Air conditioner for ambient temperatures >+38°C (>100°F), power consumption: +0.5 kW, mounting on top -> H = 1200 mm
- Cabinet heater for ambient temperatures <+5°C, power consumption: +0.25 kW

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AMESA-B Datasheet
AMESA-B Biogenic CO_2 continuous monitoring by long-term sampling
Specifications subject to change without notice.

ISO 45001:2018
ISO 14001:2015
ISO 9001:2015
CERTIFICATION