STACK 990

PARTICULATE **MEASUREMENT SYSTEM**

envea
Elevating standards. For life.

An approved particulate measurement system for continuously monitoring emissions from industrial sources.

FEATURES AND BENEFITS

- Extensively used for measurement (mg/m³) and leak location in bagfilter stack applications
- ElectroDynamic® Probe Electrification ensures the sensor rod is unaffected by contamination
- Advanced sensor design includes zero, span and unique contamination checks
- Upgradeable to include control for up to 32 sensors, plus 16 additional calculated channels (e.g. for Mass or normalised concentration)
- Combines regulatory approvals (TUV Approved BImSchV 13, 17 and 27) for both dust measurement and leak monitoring



TUV APPROVED
FOR PLANTS WITH GERMAN
REGULATIONS ACCORDING TO
13., 17., 27 BLMSCHV

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Sensor Performance Specifications	
Performance Certification	TUV BImSchV 13, 17 and 27
Hazardous Zones Certification (ATEX/IECEx)	Zone 2 (Gas), Zones 20 and 21 (Dust) up to 400°C Zones 2 and 22 (Gas/Dust) up to 800°C
Measurement Capability	0 –500 mg/m³
Long-term Zero Drift	< 0.1 mg/m³
Velocity Range	> 6 m/s
Stack Temperature Rating	-20°C to +250°C (options up to +400°C and +800°C)
Sensor Electrical Specifications	
Power Supply Voltage	18 –24V DC (from the control unit)
Cable entries	3x M20 glands
Sensor Mechanical Specifications	
Enclosure Protection Rating	IP65 (IP66, Ex-rated sensors only)
Enclosure Material	Die-cast aluminium
Standard Process Connections and Sensor Body Material	316 Stainless steel (insulated variants: PTFE coated)
Weight	1.8 kg (standard sensor)
Probe rod lengths	100 –1000 mm (insulated variants: 200 –1000 mm)
Stack Connection Options	1.5” BSP 3” ANSI or DN80 PN10/16 combined flange (standard) 2” ANSI Flanged air purge adapter 2” ANSI Flanged Hastelloy® air purge adapter (≤250°C) 2” ANSI Flanged Hastelloy® air purge adapter (≤600°C)

Ruggedised Sensor Options for Challenging Stack Applications	
Automatic sensor operation checks	Zero, Span, and Contamination self-checks provided as standard (see also the Sensor description above).
Local sensor outputs	Additional 4-20 mA and Alarm (relay) outputs (non-Ex versions only).
Insulated sensor	Insulated sensor rod for improved signal integrity in high-humidity and condensing applications (e.g. process spray driers).
Active/Passive sensor	Eliminates false signals from condensation within the stack mount in high-humidity applications (e.g. boiler, incinerator and drier applications with flue gas containing high levels of water vapour above dew point).
Corrosion protection	Corrosion-resistant materials give extended life in combustion applications with high sulphur content.
High-temperature options	Reliable long-term performance in applications of up to 400°C / 800°C (e.g. process reactors or coal gasification plant).
Ex-rated sensor options	Safety in ATEX and IECEx Hazardous Zone applications (certified for Gas zone 2 and Dust zones 20 and 21 up to 400°C, and Gas/Dust zones 2 and 22 for up to 800°C).
Air purge option	Recommended for conductive dust and high-dust applications to yield extended maintenance intervals.

ENVEA UK
Rose and Crown Rd, Swavesey,
Cambridge CB24 4RB, UK
+44 (0) 1480 468200

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STACK 990 Datasheet
STACK 990 Particulate Measurement System - Specifications subject to change without notice.