

TECHNICAL SPECIFICATION FOR ONLINE GAS ANALYZER

An online gas analyzer (based on electrochemical / NDIR / paramagnetic sensors) is required to measure the concentration of the following gases at the outlet of a lab scale solid waste combustion unit.

Gas	Concentration range	Resolution/Accuracy
O ₂	0-100%	0.1%/±0.5-1%
CO	0-50%	0.1%±0.5-1%
CO ₂	0-50%	0.1%±0.5-1%
CH ₄	0-20%	0.1%±0.5-1%
H ₂	0-50%	0.1%±0.5-1%
NO	0-1000 ppm	5 ppm
SO _x	0-1000 ppm	5 ppm

Required Features:

Outlet temperature of the exhaust gases < 100 °C

All the above gas concentrations should be measured and not calculated.

Continuous sampling and analysis of the gases should be possible.

Calibration certificate should be provided for all the above mentioned gases and their mixtures.

In-built display of the gas concentrations.

Include data logger to record and transfer the data to a PC.

Tubing (10 meters) to connect the outlet of the exhaust to the analyzer.

In-built sampling pump provision is required.

Filter unit to trap the particulates and tarry vapors.

Should be capable of choosing the gases based on requirement.

Charging unit should be provided.

Warranty: 1 year from the date of installation.

Should provide cabinet or casing for the instrument.

GENERAL TERMS AND CONDITIONS

- The supplier/vendor must be an original equipment manufacturer or an authorized agent/dealer/seller of the item.
- Vendor should physically present a sample at IIT Madras for quality inspection, if required.
- The system should be delivered within 14-16 weeks from the opening of the letter of credit or issue of the purchase order, whichever is later..
- Costs and related information should be given only in the financial bid.
- The cost should include 24 months warranty of the overall system and CIF up to Chennai.
- Optional additional warranty for another 12 months should be quoted separately.
- The warranty shall commence only from the date of equipment installation at IITM.
- Prices quoted should be valid for at least 90 days.
- Item-wise break up of cost should be provided in the commercial bid for optional items and accessories.
- IIT Madras reserves the right to exclude some items from the purchase.
- The system should be installed and commissioned with no additional cost.
- Training at IIT Madras should be provided with no additional cost.
- Two copies of the system manual should be provided in CD form.