

Detailed Specifications

1. The analyser should be capable of measuring THC (Total HC) , CO, NO_x (NO and NO₂), O₂ and CO₂ from Diesel, LPG, CNG and Gasoline fuelled internal combustion engines.
2. Additional provision to measure Methane (Optional).
3. Complete (stand alone) system with gas handling, filtering and cabinet/rack to be provided.
4. Principle of operation range and accuracy needed are indicated below in the table.
5. A list of reputed research labs/R and D institutions or automotive R and D establishments around the world that use your automotive exhaust gas analysing instruments for similar measurements is to be provided.

Component	Range	Principle of Operation	Accuracy / repeatability	Linearity
THC (ppm C)	0-200,000 ppm C (or) 0-20000 ppm C3	Heated FID (Flame ionization detector)	+ / - 1 % Full Scale	+/- 1% Full Scale
CO ₂	0-20% Vol	NDIR (Non dispersive infrared analyser)	+ / - 1 % Full Scale	+/- 1% Full Scale
NO and NO _x	0-10000ppm	Heated – Chemiluminescence (Single and dual channel options to be quoted separately)	+ / - 1 % Full Scale	+/- 1% Full Scale
CO	0-10% vol	NDIR	0.01% volume or 2% of reading	0.03% vol or 3% of reading
O ₂	0%-ambient value	Paramagnetic analyser	0.1% volume or 2% of reading or +/- 1% full scale	0.1% vol or 3% of reading
Methane	0-1% Vol in different ranges	Suitable FID or NDIR	+ / - 1 % Full Scale	+/- 1% Full Scale