

• CAMBUSTION •

NDIR500

Fast CO & CO₂

*CO and CO₂ Concentration Measurement
with Millisecond Response*



- **Fast response time (6ms)**
- **2 channel × 2 component measurement**
- **Continuous real-time sampling**
- **Inlet / exhaust port measurement**

Fast Response CO & CO₂ Measurement

Cambustion Ltd began making Fast Response emissions analysers in 1987, and have an unrivalled reputation for innovation and customer service in this field. The NDIR500 Fast CO & CO₂ system uses a unique sampling system (designed to preserve high frequency features) and the NDIR (Non-Dispersive Infra-Red) principle to resolve carbon monoxide and carbon dioxide concentration fluctuations with a typical response time of 8ms.

The NDIR500 control unit supports two independent sample heads via 10m long flexible cables. The control unit is rack-mounted remotely, and incorporates all control and calibration systems. The proximity of these sample heads to the sample source enables ultra-fast response.

The user-interface is PC-based, and communication between the computer and control unit is via an RS485 serial link. Auto-calibration, and automatic self-testing and fault-finding functions make operating the system simple.

Annual maintenance is included for first year and renewable on request. A full range of accessories for various applications are available.

Suggested Applications

Gasoline, diesel, 2-stroke, or gaseous fuel engine applications include:

Inlet port measurements for

- Transient EGR calibration
- Residual mixing studies
- Spatial EGR distribution

Exhaust measurements for

- Ultra-fast lambda measurement
- Transient fuelling calibration
- Catalyst storage investigations
- NO_x Trap regeneration
- Cold-start studies

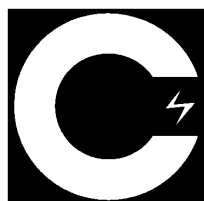
Contact Cambustion for specimen data, and list of technical publications.

NDIR500 Specification

Measurement principle	-	Non-Dispersive Infra-Red (NDIR)
Components measured	-	Carbon Monoxide (CO) & Carbon Dioxide (CO ₂)
Number of channels	-	2
Measurement ranges	-	0-200,000ppm
Response Time T_{90-10%}	-	< 6ms
Drift	-	< ±2% FS/hour
Linearity	-	< ±2% FS
Ambient sampling conditions	-	0 - 40°C
Sample gas flow	-	~5 l/min (@ atmospheric pressure)
Output	-	0 - 10V, 47Ω
Power supply	-	AC 50/60 Hz, 110/230V

Cambustion Ltd reserve the right to change this specification without notice

Patent application number: GB 9905967.7



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