

# CODEL

Monitoring Solutions

## EnergyTech 401 Cross Duct CO Analyser



Highly efficient air purges for minimal lens contamination

Automatic on-line zero calibration using integral reference gas cell

Data presentation in ppm, mg/m<sup>3</sup> or mg/Nm<sup>3</sup>

Real-time normalisation

Low maintenance

ISO 9001:2015

Quality Certification

ISO 14001:2015

Environmental Certification

Monitoring Solutions

[www.codel.co.uk](http://www.codel.co.uk)

With no sampling system to maintain, CODEL cross-duct monitors are easy to install and simple to operate – vital for plant where there may be little or no technical support available.

The EnergyTech 401 analyser may be used as a complete stand alone monitor or as part of an integrated emission monitoring, logging and reporting system. The instrument is particularly suited to large/dirty processes.

The CODEL EnergyTech 401 projects an infrared beam across the duct and through the flue gas to a receiver unit. The light beam is tuned to a specific wavelength where CO molecules absorb light energy. The more molecules there are in the light beam the greater the absorption.

The wavelength is chosen specifically to ensure that there is no interference from other gases or water vapour.

To isolate the interference for dust particles the EnergyTech 401 also uses the principle of Gas Filter Correlation (GFC) where a live and reference measurement are generated in the receiver.

The live measurement is sensitive to changes in energy caused by CO or dust. The reference channel is de-sensitised to CO using a high concentration gas cell. The difference between the live and reference channels is, therefore, a function of CO concentration.

Rugged & robust design developed for easy installation and maintenance

Vital for plant where there may be little or no technical support available.



# Technical Specification

## Sensor Unit

Operating Principle	Infrared Gas Filter correlation
Range	0 to 6000ppm.m
Averaging	4 rolling averages selectable from 10 seconds to 30 days
Accuracy	+/-2% of measurement or +/-5ppm whichever is the greater
Path Length	0.5 to 8m
Flue Gas Temperature	0 to 650°C
Ambient Temperature	-20 to +70°C
Power	110/220V, 50/60Hz, 50VA (variations of +/-20%)
Construction	Cast aluminium, fully sealed to IP65
Purge Air Consumption	1 litre/second/purge

## Compliances

EMC	2014/30/EU directive compliant
Low Voltage	2014/35/EU directive compliant

## Customer Interface

Analogue Output	0/4-20mA isolated, 500Ω
Relay Outputs	volt-free contact, 250V/10A
Data Valid Output	volt-free contact, 250V/10A
Normalising Inputs	4-20mA serial inputs via keypad for oxygen, temperature & pressure
Plant Status Inputs	Isolated field contact

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