FOR STATIONARY GAS ENGINES

CONTINENTAL CONTROLS CORPORATION

ISO 9001 Certified

Catalyst Monitor and Data Logger

Health Monitoring of NSCR or Oxidation Catalysts

THE CONTINENTAL CONTROLS SOLUTION

Over the years of integrating Air Fuel Ratio Controls (AFRC) and catalysts for Gas Engines it has become apparent that there is a need to monitor various inputs and outputs to NSCR and Oxidation catalysts to provide some assurance that these devices were working as designed. The CCC Catalyst Monitor provides this function and is available in two versions:

1. **FOR DATA LOGGING ONLY** This version will monitor various inputs as configured by a user over an extended period of time.
2. **FOR DATA LOGGING AND AUTOMATIC ADJUSTMENT OF THE CCC AFR SET POINT** The "Intelligent" version will communicate via CAN-Bus with the CCC Air Fuel Ratio Controller to make corrections to the Set Point to maintain low emissions levels and extend the useful life of the catalyst by using a special post catalyst NO_X sensor.

Gas Engines subject to RICE MACT are required to monitor catalyst temperatures continuously. Catalysts require heat to react with targeted emissions. The Cat Monitor will monitor both pre- and post-catalyst temperature and notify the user if either a minimum or maximum temperature is exceeded.

The Cat Monitor is available as a Data Logger only or as a real time automatic trim to a CCC AFR system.

PARAMETER MONITORING FOR RICE MACT

MONITORS KEY CATALYST OPERATING PARAMETERS

ALARM OR SHUT DOWN ON TEMPERATURE OR PRESSURE

DATA LOGGING ON BOARD FOR PERIODIC OR CONTINUOUS DOWNLOAD OR RETRIEVAL

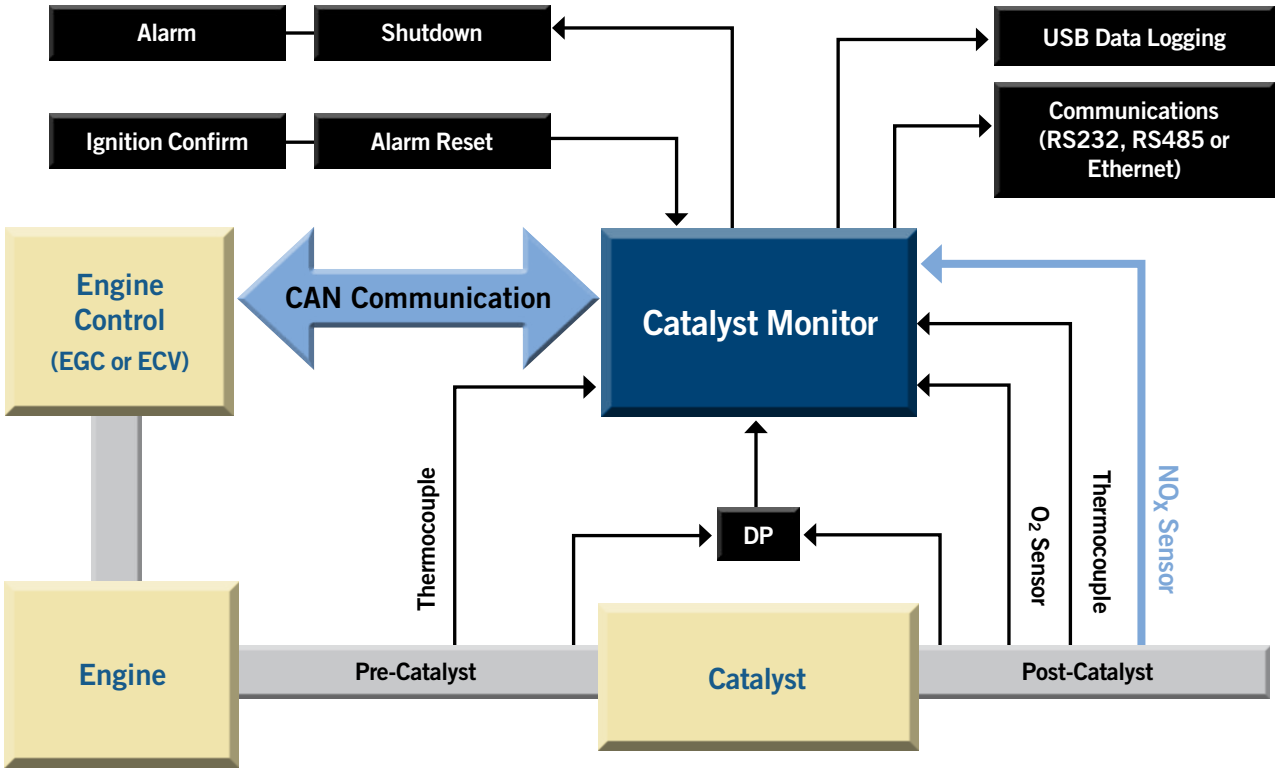
AUTOMATIC ADJUSTMENT TO CCC AFR CONTROLLERS

OPERATOR CONFIGURABLE

VARIETY OF I/O SUPPORTED

NON-RESETTABLE REAL TIME CLOCK

APPLICATIONS



CATALYST MONITOR – SYSTEM LEVEL

Version 1 — Catalyst Monitor

Version 2 — Catalyst Monitor with Intelligent Feedback

Increased differential pressure across the catalyst indicates masking/fouling of the catalyst elements. A substantial decrease in this differential pressure can indicate severe damage. Our Cat Monitor will log the differential pressure, notify the user of any unacceptable conditions and ensure your engine remains in compliance continuously.

OPERATING TEMPERATURE
From -40 to 185 Degrees F

INPUTS
2 Wide Band O_2 Sensors

2 NO_X Sensors

2 Thermocouple Inputs

1 Differential Pressure Input

1 4/20 ma Input
(Possibly for Flow Measurement)

2 CAN-Bus Inputs
(If NO_X Sensors are not used)

OUTPUTS
CAN-Bus Communications

Mod-Bus RS-232/485 for Possible SCADA Interface or PC

2 Digital Discrete Outputs
(Shut Down and/or Alarm)

USB Interface

LED Status Indication Lamp

Ethernet Communications

ADDITIONAL SPECIFICATIONS
9-32vdc Input Power

HAZARDOUS ENVIORNMENT
Designed to be Class 1 Div 2 Compliant

IP 66 Compliant

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