

# ECMD-100

## Emissions Compliance Monitoring and Datalogging Systems

- Full-featured, cost-effective engine emissions monitoring system
- Monitors critical parameters associated with environmental regulations, including RICE-NESHAP
  - Temperatures
  - Pressures
  - Additional discrete and analog inputs
- Records up to one-hundred (100) time and date stamped datalogs accessible via USB interface
  - Data captured continuously and recorded in fifteen minute intervals in accordance with current RICE-NESHAP regulations
  - An optional "Enhanced" version allows for thousands of fifteen minute datalogs to be recorded and accessed via an on-board CompactFlash® Card
- Available in a variety of configurations to suit specific application requirements and budgets
  - Both Standard and Enhanced versions are available as loose components or pre-packaged in a NEMA 4X auxiliary panel for simple installation on an application where field modification of the existing control panel is not a viable option
- Easily interfaced to SCADA or remote communication systems
- For use in Class I, Division 2, Group C and D hazardous operating areas

The Altronic ECMD-100 series of emissions compliance monitoring and datalogging devices are designed to cost-effectively assist operators of reciprocating engines facing strict guidelines specific to exhaust emissions monitoring and recording. Built around a proven and stable platform of Altronic and optional third-party products, the ECMD systems offer users flexible access to the core monitoring hardware in either a pre-packaged auxiliary panel or as individual components to be installed in new or existing engine control panels.

All of the current and pending RICE-NESHAP requirements for monitoring of critical catalyst-related temperatures and pressures are monitored and recorded by the ECMD system. The ECMD system's flexible input structure ensures that the device will remain compatible with future requirements which may call for additional sensor technologies such as O<sub>2</sub> and NO<sub>x</sub> monitoring. Its on-board alarm and shutdown output switches can also be configured to insure that any out of compliance operation associated with any of the parameters alerts the operator locally or remotely, and/or shuts the monitored equipment down automatically.

Standard ECMD systems feature on-board datalogging capable of retaining up to one-hundred time/date-stamped records. All monitored data is collected on 15 minute intervals (per RICE-NESHAP), with additional datalogs generated upon setpoint excursions (faults). Enhanced ECMD systems record and retain thousands of additional normal and fault datalogs for local and remote access, trending, and compliance reporting (120 days). Each ECMD system also supports full Modbus communications compatibility for integration with local HMI/monitoring systems and/or SCADA/telemetry devices. Ethernet (Modbus TCP, HTTP and FTP) connectivity is available in the Enhanced System.



# Specifications (Standard ECMD System)

## Power Requirement

DC-powered, 12-24Vdc, 15watts max.

## Inputs (Optional)

- (8) Analog (T/C, 0-5V, 4-20mA)
- (1) Magnetic Pickup (Status/Speed)
- (4) Discrete Inputs (Status)

## Outputs

- (2) Solid-State Output Switches (200Vdc) – Alarm/Shutdown

## Communications

- (1) RS-485 2W supporting ASCII and Modbus RTU
- (1) RS-232 supporting ASCII and Modbus RTU

Keypad..... 12-key membrane

Enclosure Rating ..... NEMA 4X

Hazardous Area Classification..... Class I, Division 2, Groups C and D

# Specifications (Enhanced ECMD System)

## Power Requirement

DC powered, 24Vdc, 40watts max.

## Inputs (Optional)

- (8) Analog (T/C, 0-5V, 4-20mA)
- (1) Magnetic Pickup (Status/Speed)
- (4) Discrete Inputs (Status)

## Outputs

- (2) Solid-State Output Switches (200Vdc) – Alarm/Shutdown

## Communications

- (1) RS-232 supporting ASCII and Modbus RTU
- (1) 10/100 Ethernet Port supporting Modbus TCP, HTTP, and FTP

Keypad..... 12-key membrane

Enclosure Rating ..... NEMA 4X

Hazardous Area Classification..... Class I, Division 2, Groups C and D

# Ordering Information

Emissions Monitor, Packaged (Standard) ECMD-101

Emissions Monitor, Packaged (Expanded) ECMD-102

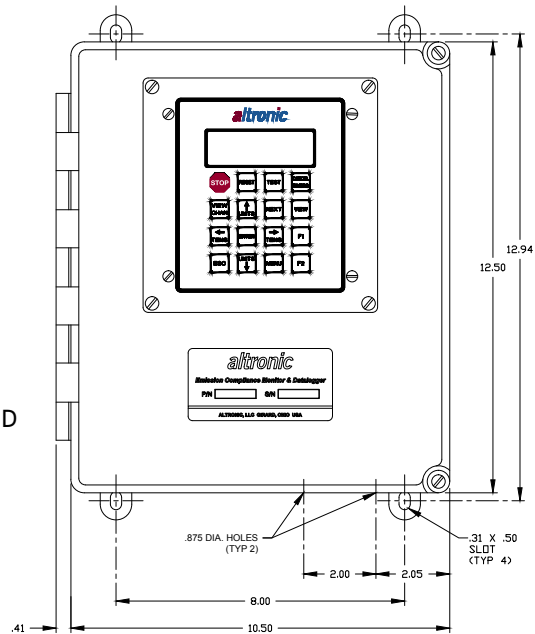
ECMD Module, Display ..... DE-1520

ECMD Module, Terminal – Input/Output. 691142-6

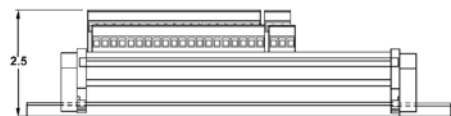
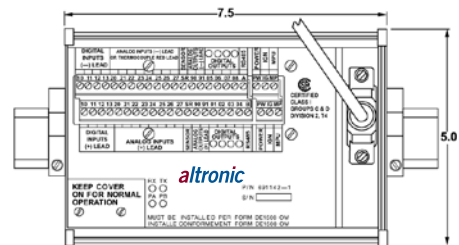
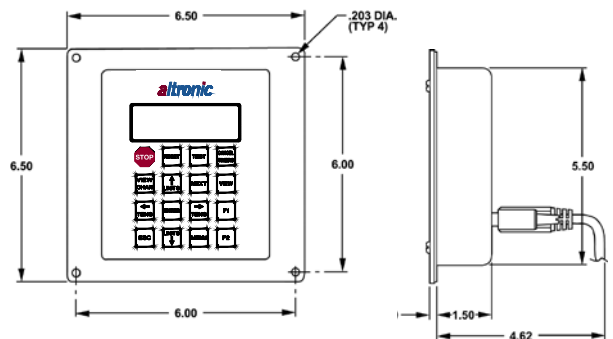
ECMD Module, Datalogger (Expanded)... 615240-KT

# ECMD Module Diagrams

ECMD (w/enclosure)



ECMD (no enclosure)



# ALTRONIC

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