

NGI-5000

Advanced Digital Ignition System

- State-of-the-art ignition solution designed and built for large gas engines.
- Patented technology to support performance, combustion stability, diagnostics, and system access.
- Unique, dual 7-inch 1080p, user-configurable, HD displays for system monitoring and control.
- Incorporates the revolutionary Altronic Web Interface (AWI) for easy customization of displays.
- Simple system configuration and integration with other control systems.
- Designed and built for simple, long-term support
- Suitable for use in Class I, Division 2, Group C and D hazardous operating areas.
- Cost-effective retrofit from Altronic II-CPU, CPU-2000, CPU-XL, and competitive systems.

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Like the Altronic II, II-CPU, CPU-2000, and CPU-XL that came before it, the NGI-5000 Advanced Digital Ignition System is designed and built to deliver unprecedented value, performance, and reliability for critical large gas compressor applications worldwide.

As noted in the System Overview diagram on the back of this summary, the NGI-5000 is built around a Logic Module, a DCPM Module (Diagnostic Communications Power Module), and a one-per-cylinder ignition output unit (CIU). Working in concert with a groundbreaking new coil design, this Varispark®-enabled solution assures comprehensive control of the delivered spark energy, and the indication of cylinder spark voltage demand (in kV). Like all advanced Altronic systems, the NGI-5000 is also backed by the commitment from Altronic and its Distributor partners to long-term product support, and regular new feature updates that can be conveniently added in the field over the lifetime of the product.

Incorporating both a high-performance micro-controller and microprocessor, the NGI-5000 seamlessly bridges the gap between the critical real-time control of the engine operation and the communication and interface with the outside world. Dual 1080p displays are integrated into the Logic Module for effective access to system data, configuration details, and user-configurable dashboards. Typically, one of the displays provides graphical indication of operating status, engine RPM, and ignition timing, with the configured to provide access to all other relevant system data and operating details.

In addition to supporting industry standard Modbus RTU, the NGI-5000 also incorporates an integral Ethernet switch and provides a port for connection to external systems via Modbus TCP, the Altronic Web Interface (AWI) tool, or other Ethernet-based protocols. All system configuration is accomplished through the AWI—no external terminal program is required. The NGI-5000 system is certified* for use in Class I, Division 2, Group C and D hazardous areas.

* Final certification of system pending with NRTL.



OEM Approved and Endorsed by

COOPER | MACHINERY SERVICES

To Order

COMPONENTS

NGI-5000 Logic Module.....	291500-1
Cylinder Ignition Unit (CIU)	291501-1
Diagnostic Comm. Power Module (DCPM).....	291502-1
Ignition Coil, NGI	291503-1

PRIMARY CABLE LENGTH CIU - COIL

12", 24", 30", 36", 48", 60", 72", 96"	293039-X
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KITS¹

NGI-5000 6-Cylinder Kit	291510-6KT
NGI-5000 8-Cylinder Kit	291510-8KT
NGI-5000 10-Cylinder Kit	291510-10KT
NGI-5000 12-Cylinder Kit	291510-12KT
NGI-5000 14-Cylinder Kit	291510-14KT
NGI-5000 16-Cylinder Kit	291510-16KT
NGI-5000 20-Cylinder Kit.....	291510-20KT

General Specifications

INPUT PICKUPS

- ×1 – Magnetic pickup for flywheel holes or ring gear teeth
- ×1 – Magnetic pickup for reset (1/engine revolution)
- ×1 – Hall-effect pickup for compression stroke reference²

COMMUNICATION AND CONTROL INPUTS

- ×1 – 4-20mA timing control signal
- ×1 – RS-485 serial communications – Modbus RTU
- ×1 – 10/100 Ethernet – Modbus TCP, etc.

SPECIFICATIONS

Display..... Dual 7" full HD (1080p), sunlight-readable, 900 nits
 Input Power Requirements 24 VDC, 10 to 20 amps³
 Operating Temperature -40 °F to +158 °F (-40 °C to +70 °C)

HAZARDOUS AREA CERTIFICATION

Logic Module⁴:

Class I, Division 2, Groups C, D, T4A
 II 3 G EX ec IIB T4 -40 °C < Ta < 85 °C

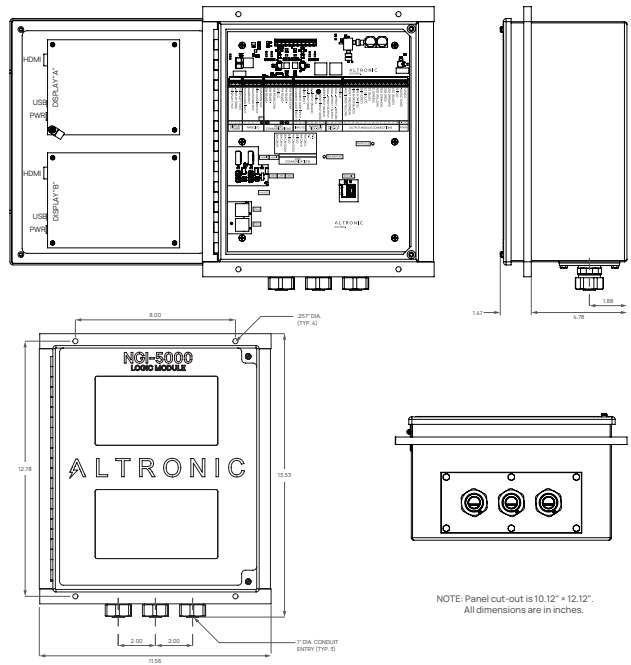
NGI-5000 System:

Suitable for use in Class I, Division 2, Groups C and D hazardous operating areas.

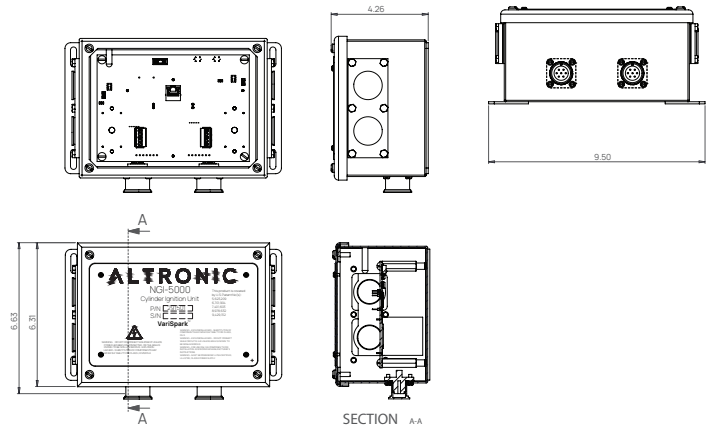
Protected by multiple US and International Patents.
 See www.altronic-llc.com/research-development for more information.

- 1 Includes system Logic Module, DCPM, CIUs (one per cylinder), and two (2) coils per cylinder.
- 2 4-cycle applications only.
- 3 10 amps required for systems up to 10 cylinders; 20 amps required for 20-cylinder.
- 4 Full-system certification pending.

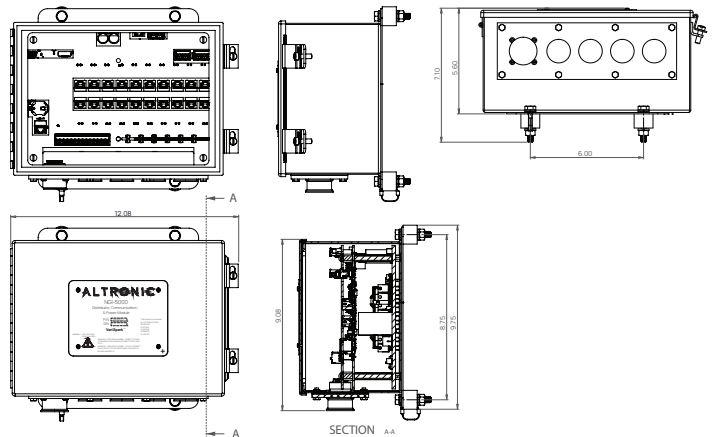
Dimensions



NGI-5000 Logic Module

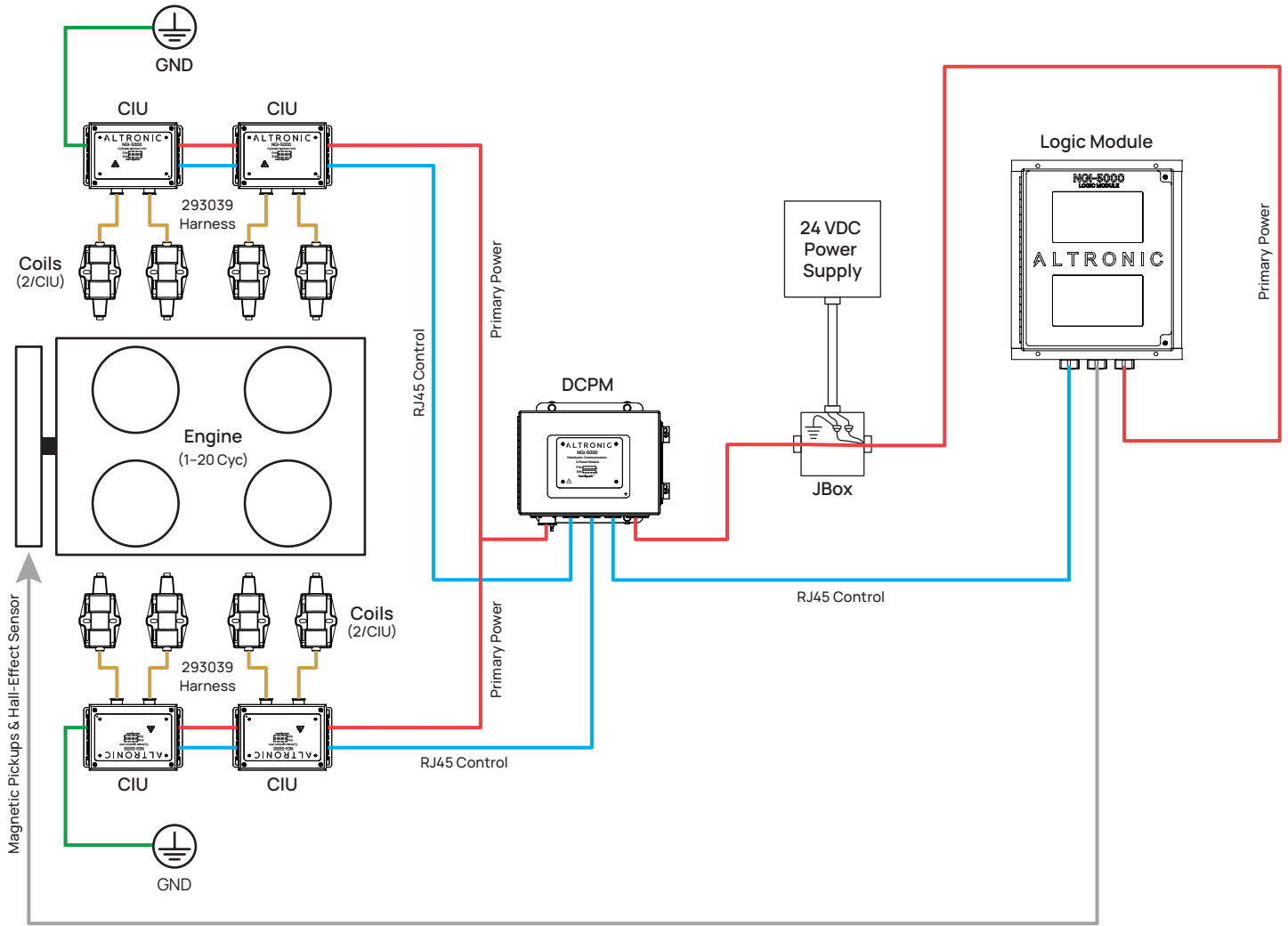


CIU Module



DCPM Module

System Diagram



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