

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 seven (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
- Certified* for use in Class I, Division 2, Group C and D hazardous operating areas
- Cost-effective retrofit from Altronic II-CPU

Like the Altronic II, II-CPU, CPU-2000, and CPU-XL that came before it, the NGI-5000 Advanced 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 (distribution/control/power module), and a one-per-cylinder ignition output unit (CIU). Working in concert with a groundbreaking new ignition coil design, this

Varispark®-enabled solution assures comprehensive control of the delivered spark energy, precision ion-sense-based indication of the spark voltage demand (in kV), and the capacity to directly monitor and annunciate combustion diagnostics – including both detonation and misfire. 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.

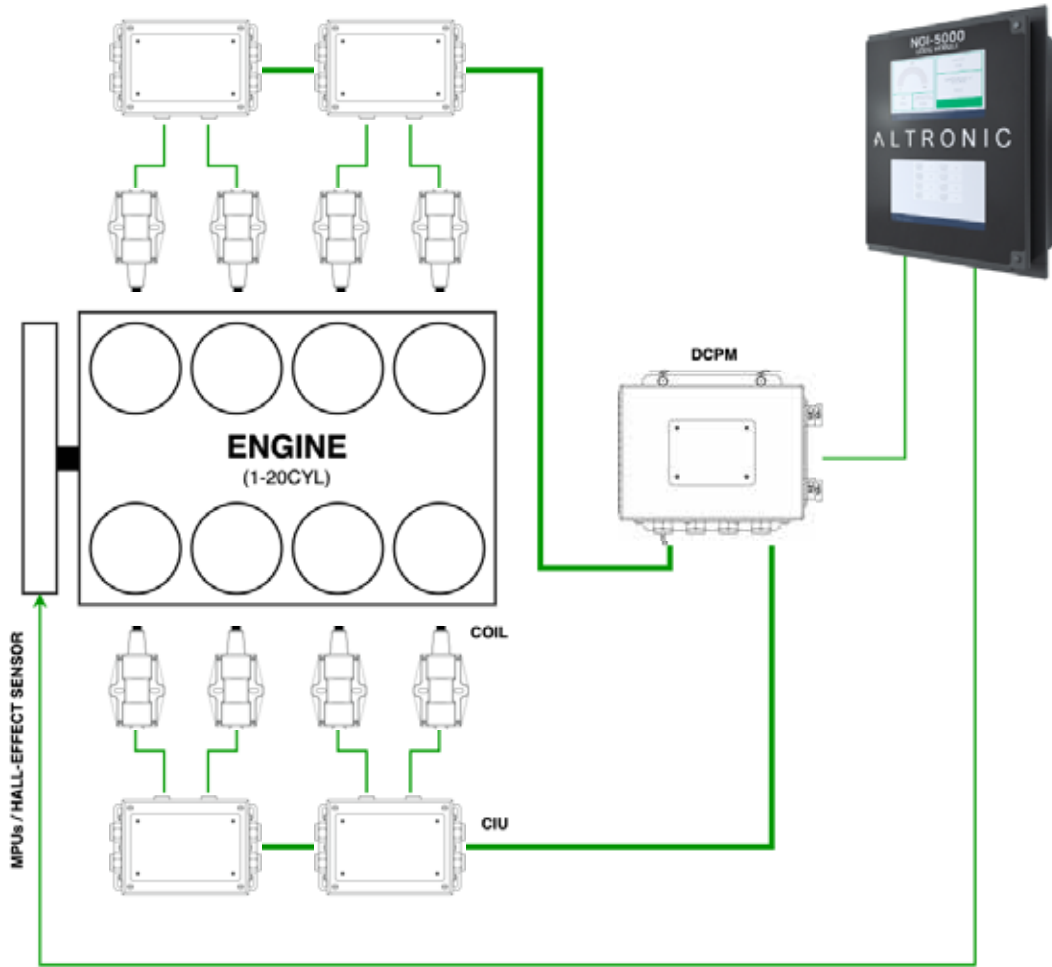
In addition to supporting industry standard Modbus RTU, the NGI-5000 also incorporates an integral Ethernet switch and provides a port for connection to external systems via Modbus TCP, the Altronic Web Interface (AWI) tool, or other Ethernet-based protocols. All system configuration is accomplished 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. Expected completion in Q4 2023



SYSTEM DIAGRAM



SPECIFICATIONS

Input Pickups

- Magnetic pickup for flywheel holes or ring gear teeth
- Magnetic pickup for reset (1/engine revolution)
- Hall-effect pickup for compression stroke reference (1)*
(*4-cycle applications only)

Communication and Control Inputs

- 4-20mA timing control signal
- RS-485 serial communications - ModBusRTU
- 10/100 Ethernet - ModbusTCP, etc.

Display: Dual, 7", full HD (1080P), sunlight-readable, 900 nits

Input Power Requirements: 24 Vdc, 10-20 amps

Operating Temperature: -40° F. to +158° F. (-40° C. to +70° C.)

ORDERING INFORMATION

Components

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

Kits*

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

*Includes system Logic Module, DCPM, CIUs, and two (2) coils per cylinder

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