

ALTRONIC III^{NG}

Ignition System for Industrial Engines

- Up to 16 outputs per unit
- Proven reliability and high temperature capability
- Ease of maintenance with removable back cover
- High output option
- Long spark duration coil option
- CSA-certified for Class I, Division 2, Group D hazardous areas

Altronic III^{NG} is a self-powered, low-tension, capacitor discharge ignition system for 6- to 16-cylinder, 2- or 4-cycle engines. Powered from a 12-pole permanent magnet alternator.

Altronic III^{NG} provides superior performance throughout the engine's operating range. Its basic design features—permanent magnet alternator; easily serviced, removable back cover containing all electronics; and simple, reliable electronic circuitry—have made Altronic III^{NG} the standard of the industry on medium-to-large industrial gas engines.

Altronic III^{NG}'s mechanical design matches the long life inherent in the electronic circuitry. Sealed ball bearings used throughout are large and underloaded. The alternator has a smooth rotating cycle—a characteristic which contributes to

prolonged bearing and gear life. Synthetic elastomer couplings ensure minimal wear while dampening engine drive-train vibration.

Options for the Altronic III^{NG} ignition system include standard or long spark duration coils to satisfy the needs of any application. A variety of shielded ignition components are available for Class I, Division 2, Group D hazardous areas.



CERTIFIED
CLASS I, DIV 2
GROUP D

Superior Performance

Altronic III^{NG} provides strong performance over the entire engine operating range. A low starting speed capability—typically 30 RPM, 2-cycle or 60 RPM, 4-cycle—is made possible by the 12-pole permanent magnet alternator. Delivered spark duration at typical engine KV demand levels is a critical factor for smooth, consistent engine performance. Altronic III^{NG}, using 501061 standard coil gives excellent performance, and the 591010 long-duration coil provides the extended duration required for lean mixture or non-standard fuel applications.

STANDARD OUTPUT			HIGH OUTPUT	
IGNITION COIL	MAX. KV	SPARK DURATION	MAX. KV	SPARK DURATION
501061	34KV	250 usec @ 10KV	40KV	360 usec @ 10KV 200 usec @ 20KV
591010	34KV	450 usec @ 10KV	40KV	550 usec @ 10KV 360 usec @ 20KV

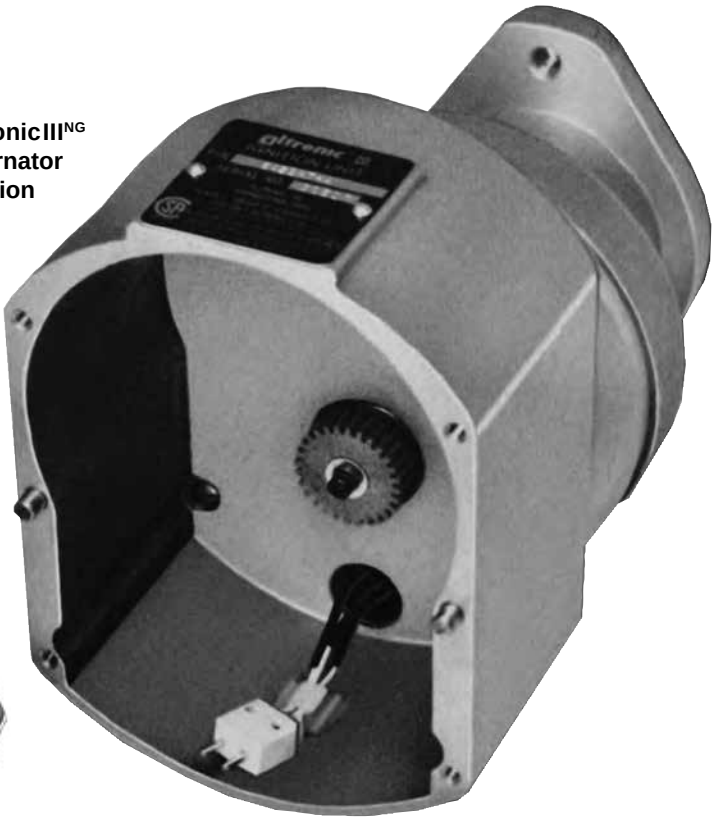
UNSHIELDED COILS
501061 – Standard
591010 – Long Duration



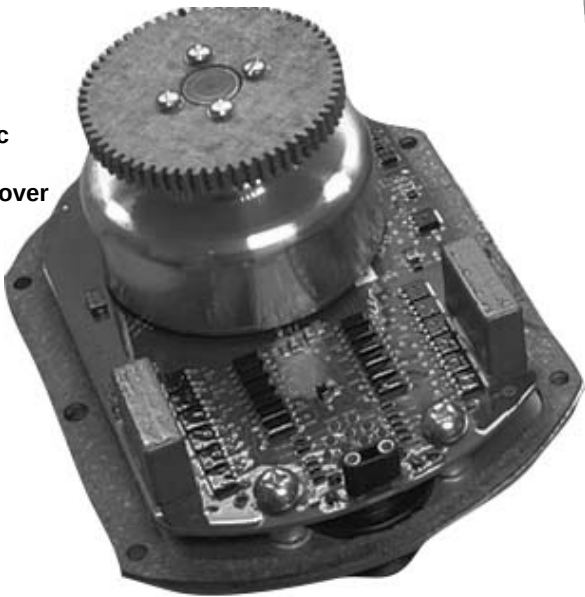
Low Maintenance Design and Ease of Service

AltronicIII^{NG} has been designed to be as maintenance free as possible. Tens of thousands of AltronicIII units in successful field operations since 1968 have resulted in a design evolution to the present field proven form. All bearings are sealed ball bearings. The internal gears are large and underloaded. When service is required, AltronicIII^{NG} is designed to make it easy. All electronic components are mounted on the back cover assembly which is easily removed from the alternator section of the unit.

**AltronicIII^{NG}
Alternator
Section**



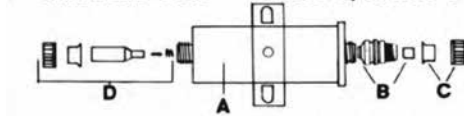
**Altronic
III^{NG}
Back Cover**



Shielded Components

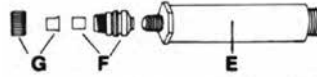
Shown below are the various shielded coil assembly and lead options. Altronic primary and spark plug cables are fabricated from Teflon® tubing covered with stainless steel braid. All components are CSA certified/FMS approved for Class I, Division 2, Group D hazardous locations.

SHIELDED COIL 501061*S, 591010-S



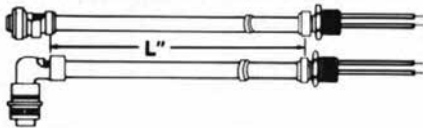
COIL NO.	DESCRIPTION	INCLUDES
501061-S 591010-S	Shielded Coil - Standard Shielded Coil - Long Duration	A
501061-S-2 591010-S-2	Coil w/Primary & Sec. Fittings	A + B + C + D
501061-S-5 591010-S-5	Coil w/Secondary Fittings	A + D

INTEGRAL COIL 591007, 591011A, 591011B



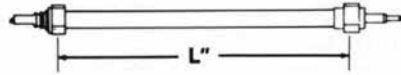
COIL NO.	DESCRIPTION	INCLUDES
591007 591011A 591011B	Coil 1"-20 x 5.6" long Coil 13/16"-20 x 6.1" long Coil 13/16"-20 x 10.8" long	E
591007-2 591011A-2 591011B-2	Coil with Primary Fittings	E + F + G

SHIELDED PRIMARY CABLE



PART NO.	CONNECTOR TYPE	LENGTH L"
593022-L"	Straight	6", 9", 12", 15", 18", 24", 30", 36", 42", 48", 54", 60", 72"
593027-L"	Right Angle	

SHIELDED SPARK PLUG LEAD



PART NO.	SPARK PLUG-WELL DEPTH	LENGTH L"
593020-L"	3/4" - 20 1"	10", 13" 16", 18"
593030-L"	3/4" - 20 2"	

Altronic Shielded Coils

Shielded coils cover all application requirements with external types (standard and long-duration) and integral coils mounting directly to either 1"-20 or 13/16"-20 thread spark plugs.

591012 FLANGE-MOUNT COIL Long-duration



501061-S SHIELDED COIL Standard

591010-S SHIELDED COIL Long-duration



591007 INTEGRAL COIL 1"-20 thread, 5.6" length



591011 A INTEGRAL COIL (not shown)

13/16"-20 thread, 6.1" length

591011 B INTEGRAL COIL 13/16"-20 thread, 10.8" length

ALTRONIC

A Member of the HOERBIGER Group

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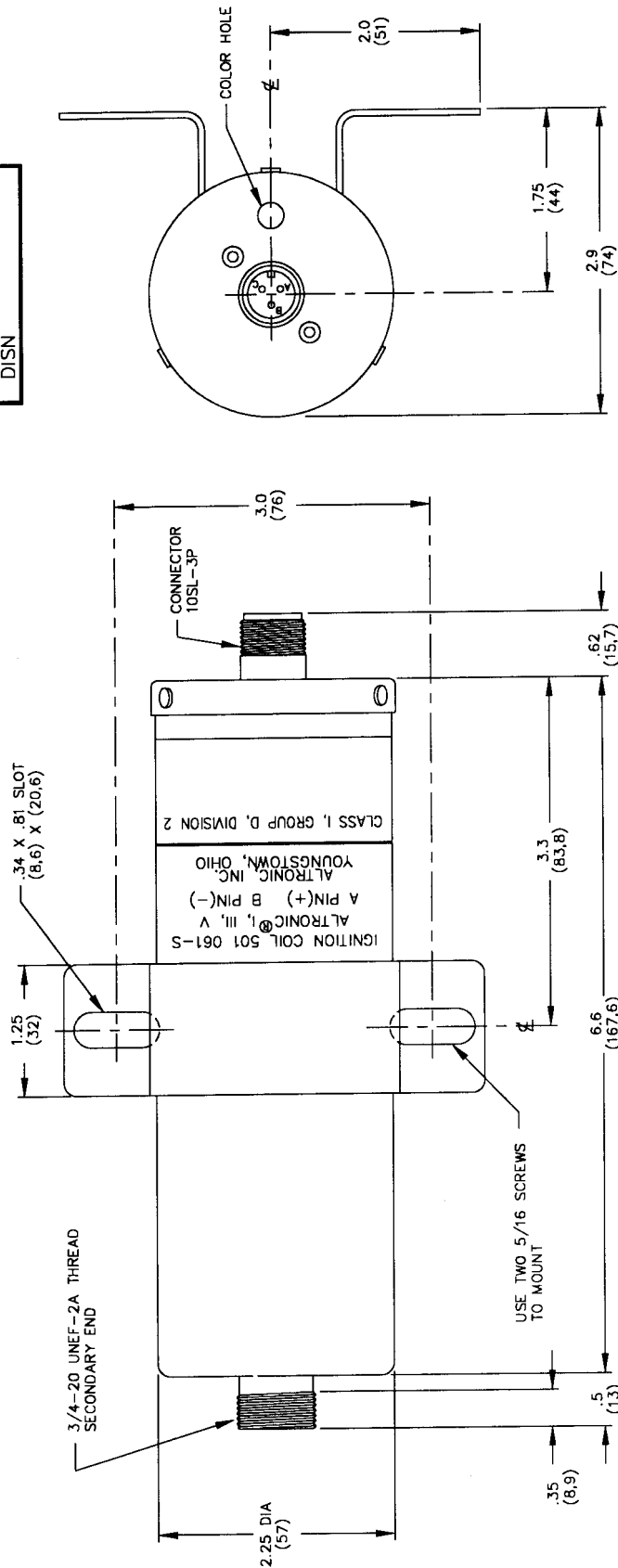
Applications

AJAX
CATERPILLAR
CLARK
CLIMAX
COOPER-BESSEMER
CUMMINS
INGERSOLL RAND
M.E.P.
ROILINE
SUPERIOR
WAUKESHA
WORTHINGTON

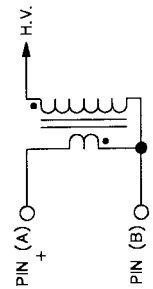
APPLICATION
ALTRONIC I
ALTRONIC III
ALTRONIC V
CD1/CD2
CPU-90/95
DISN

COLOR	RESISTANCE	PRIMARY	SECONDARY
BLUE	0.1-0.2 Ω	Pin A to Pin B	Output to Pin B
			4,400-6,900 Ω

COIL ASSEMBLY PART NO.	ASSEMBLY INCLUDES PRIMARY ACCESS. PKG.	SECONDARY ACCESS. PKG.
501 061-S-2	510 553	510 480
501 061-S-5	-	510 480



COIL CIRCUIT DIAGRAM



CSA CERTIFIED CLASS I, GROUP D, DIVISION 2

DIMENSIONS IN INCHES AND (MILLIMETERS)

REVISIONS			TOLERANCES (EXCEPT AS NOTED)			ALTRONIC INC.		
NO.	DATE	BY	DESCRIPTION	DECIMAL	FRACTIONAL	TITLE	SCALE	DRAWING NUMBER
1	8-5-93	WTP	ECN 930109	±.005	±.010	SHIELDED COIL	FULL	SALES DRAWING
2	12-15-97	WTP	ECN 970148	±.005	±.010	SALES DRAWING	FULL	SALES DRAWING
3						DATE	7-17-91	
4						CHECKED BY		
5						APPROVED BY		

501 061-S