



Diesel to CNG/LNG Conversion Kits

Designed to control normally aspirated, turbo-charged and lean-burn engines, running on LPG, natural gas and biogas, GS4/6 utilises the latest inductive ignition technology to ensure that engine emissions are kept to an absolute minimum.

The igniters have been designed with the additional functionality required for the stationary gas engine market, and for more complex vehicle applications. Packed with useful features, reducing engine development and setup times considerably.

Key Features

- Advanced Closed Loop Control
- Maintenance Free
- Robust Construction
- Fully Programmable
- Advanced Diagnostics
- Lean and Stoichiometric
- 1-4 And 1-6 Cylinder Engines
- CHP Engines
- Generator Set Engines
- Compressor Engines
- Commercial Vehicle Engines
- Forklift Truck Engines



SM60 Ignition Coil

Gill Instruments SM60 coils are designed to provide powerful and efficient spark ignition for normally aspirated or turbo charged, stoichiometric or lean burn gaseous fuelled engines up to approximately 2 litres (120 cubic inches) per cylinder. Available with an AMP sealed connector for LT connections (screw terminals available as an option). SM60 coils are single, high efficiency, compact, dry coils designed to work with the Gill range of inductive igniters. They are fully encapsulated with no exposed core, providing robust spark ignition technology.

Engine Position Sensors

The standard conversion kit comes with a surface mount engine position sensor. Push-in and threaded position sensors are also available as options to give you additional flexibility.

With a robust design, easy to fit mountings and electrical connectors they are the number one choice for OEM purchasers worldwide.

Timing Disk

The standard conversion kits come with either a four or six cylinder timing disk. Alternatively the igniter can be programmed to work with timing disks already fitted to the engine.

Wiring Harness

The standard conversion kit comes with a wiring harness suitable for engines with up to six cylinders, for connecting the ignition system, coil primaries and engine position sensors. Available with fully water proof connectors. Customised harnesses are also available on request.



Engine Controls

IGNITION COILS

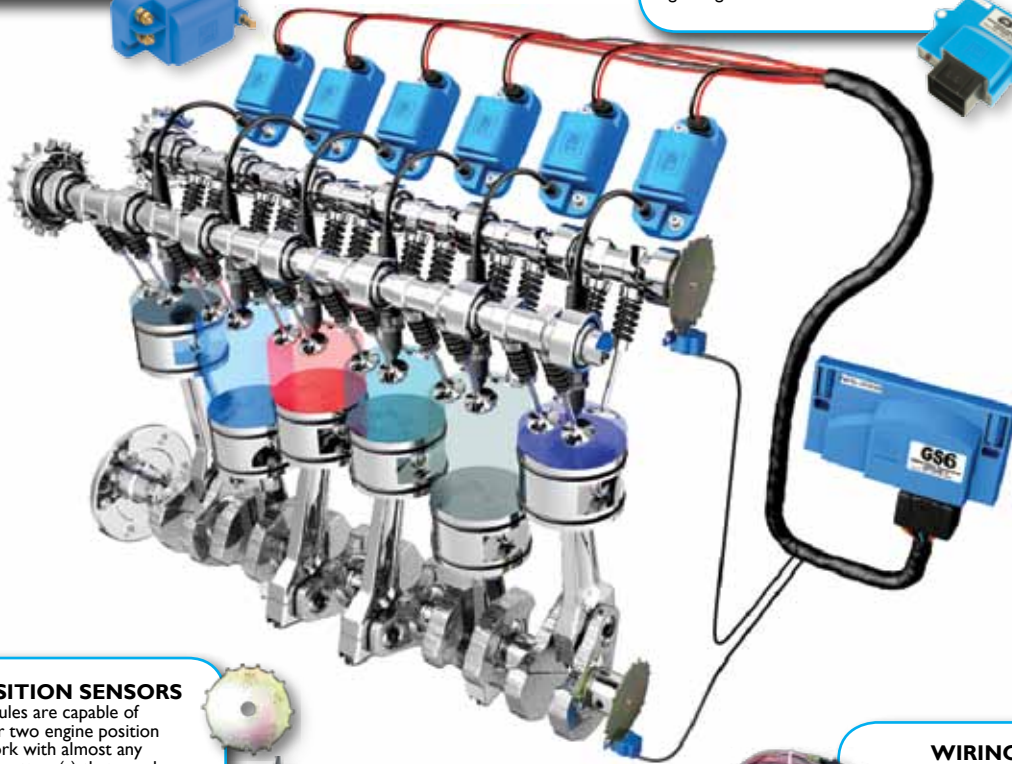
This ignition system can run either 1 - 4 (GS4) or 1 - 6 (GS6) ignition coils, and is designed to work with the Gill surface mount coils.

SM60 Surface Mount Ignition Coil



GS4 AND GS6 IGNITION MODULES

Designed to control normally aspirated, turbo-charged and lean burn engines, running on LPG, natural gas and bio gas. The GS range utilises the latest inductive ignition technology to ensure that engine emissions are kept to an absolute minimum. The GS4 and GS6 igniters have specifically been designed with the additional functionality required for complex vehicle and stationary gas engine markets.



ENGINE POSITION SENSORS

These ignition modules are capable of running with one or two engine position sensors and can work with almost any arbitrary timing disk pattern(s) that may be fitted to the engine. Alternatively Gill can supply a standard timing disk which will work with the Gill range of inductive engine position sensors, or we can use sensors already supplied with the engine.



WIRING HARNESS

Gill Instruments can supply a range of standard wiring harnesses for their engine controls products or can manufacture harnesses specifically for your application.



GS4/6 Igniters			
Number of Cylinders	1-6 (programmable)	Inputs	TPS or MAP sensors for load, thermistor for temperature mapping
Ignition Point	Fully programmable for engine speed, load, temperature and fuel type	Outputs	On-board visible status indicator Optional: Fuel valve drive, Tacho / Speed signal
Timing Maps	Typically 10, programmable to 6,000 RPM	Communications	RS232 for programming via Windows® based GUI
Ignition / Fuel Rev Limits	Fully programmable to 6,000 RPM	Power Supply	12V or 24VDC
Spark Energy / Duration	Full user control via selectable dwell time with automatic supply voltage compensation	Environmental	-40 ° C to + 90 ° C, Sealed to IP67
Temperature Mapping	Option	Connection	AMP Econoseal 18-way
		Certification	CSA® Certified Class 1, Div. 2, Groups C and D when installed in the EH12 shielded enclosure

Standard Ignition Pick-up		Engine Position Sensors Specifications	
Resistance (nominal)	0.5ohms nominal	Resistance (Nominal):	575ohms
Primary inductance:	2.5mH	Working Gap:	2 mm nominal (with Gill Timing Disk)
Peak current:	10.5A at max dwell	Max Speed:	10,000 teeth/second
Typical Spark Duration:	1000µs (at nominal dwell)	Connectors:	Various connectors available
Spark energy:	>60mJ (at nominal dwell)		
Secondary voltage:	35kV max		
LT Connections:	Screw Terminal or AMP Superseal Connector		
HT Connections:	SAE post		
Note: Dimensions specified on individual data sheets.			

