

Engine Controller Test System



THERMOTRON[®] **PRODUCT TEST SOLUTIONS**

Testing Multiple Units of Engine Controllers

To meet governmental regulations of fuel economy and exhaust emissions, manufacturers have turned to electronic engine control management. To support these programs, Thermotron is pleased to announce our multi-unit Engine Control Test System. Each system is designed to simultaneously test multiple controllers thereby improving throughput and shortening test time. The flexibility of user defined stimulus such as throttle position, manifold pressure, speed, temperature, oxygen content etc., make these systems ideal for testing a multitude of different types of controllers. A dedicated automotive bus channel per product provides communication control and the implementation of diagnostics. Continuous monitoring of the controller's outputs and waveform verification completes the test strategy and assures the user a complete and thorough test. When used in conjunction with an environmental chamber, design, process and/or material flaws are easily identified. With its ease of use, flexible configurations and extensive failure history logs, these multi-unit test systems are designed to ease the burden and lower the cost of bringing your product to market.

THERMOTRON INDUSTRIES

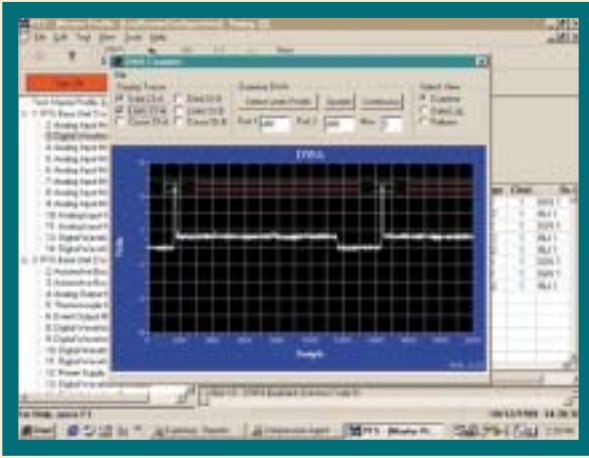
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Complete Test Strategy



Waveform Verification

Often, it is critical to verify a signal's waveform integrity as well as its presence. Utilizing Thermotron's Product Test System's patented Digital Waveform Analyzer (DWA-04), complex waveforms for such critical signals such as injectors and ignitions are easily monitored and verified.

Each DWA-04 monitoring instrument provides parametric monitoring of up to 2000 waveforms per test profile. As waveform are monitored, they are compared to user defined monitoring points. Any detected failures are automatically displayed and logged for further analysis. When used in conjunction with the test system's other programmable stimulus, communication and monitoring instruments, the DWA-04 completes the test strategy for an engine controller's verification process.

Flexible Testing

As engine management systems change, test systems need to be flexible in adapting to new test strategies. Thermotron's system software enables the user to define and store numerous profiles that can easily simulate I/O conditions that would be expected in an automotive, marine, recreational and/or utility environment. In addition to programmable stimulus and the continuous monitoring of a controller's outputs, each system provides a dedicated programmable serial communication interface which has become essential in the testing of today's complex controllers.

The flexible architecture of these test systems assures that compliance with fuel economy and exhaust gas regulations can be verified for multitude of different types of engine controllers.

Want More Information?

To obtain more information about how the Product Test System can simplify your engine controller testing, contact your Thermotron sales representative. Custom designs, detailed data sheets and application notes are available. Visit us on the Internet at www.thermotron.com/pts

Testing Capabilities:

- Chamber Control provided through simple user specified test profiles. No device drivers or code generation required.
- Product power rating of 0-20 volt (programmable) @ 55 amperes per product.
- Parametric monitoring of up to 2000 waveforms per test profile.
- 32 channels of programmable analog voltage levels for use as stimulus available per product.
- 8 channels of programmable analog waveforms for use as stimulus available per product.
- 1 channel of serial communication (CAN, CCD, Class II, ISO 9141, J1850 or SCP) available per product.
- 32 channels of programmable digital or switched waveforms available for use as stimulus available per product.
- 40 channels of continuous signal monitoring available per product.