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**New Low Voltage LVDT Signal Conditioner Designed for Use in PLCs and Vehicular Testing Systems**

... Macro Sensors ([www.macrosensors.com](http://www.macrosensors.com)), a sensor company specializing in the manufacture of LVDT-based linear position sensors and gaging probes, introduces a new single channel, low voltage signal conditioner that supports any standard LVDT, RVDT and VRT half-bridge sensor.

**/24-7PressRelease/** - PENNSAUKEN, NJ, December 15, 2006 - Units can operate both conventional LVDTs and VR half-bridge sensors such as in European gaging probes and GE power generation position LVRT sensors for steam turbines.

Operating from 12V or 24V DC power, the Model LVC-2500 DC-LVDT Signal Conditioner is designed specifically for use in 24V systems with PLCs and mini-PLCs or in 12V mobile and vehicular testing systems.

Units offer three analog outputs: bipolar 0 to  $\pm 10$  V DC, unipolar 0 to 10 V DC, or 4 to 20 mA (sourcing) in a 3-wire common ground system in which the power ground is connected to the output signal's ground. By shifting a movable internal jumper in the LVC-2500 Signal Conditioner, users can choose between 3, 5, or 10 kHz nominal excitation frequencies at a level of 3V rms for operating LVDTs with primary impedance greater than 100 Ohms.

Other significant features of the LVC-2500:

- The LVC-2500 has lower output noise and ripple than its competitors. This could be useful for users looking for optimum resolution by improving the signal-to-noise ratio of their measuring systems.
- Internal circuitry produces a low distortion sine wave to excite the LVDT and a synchronous demodulator to convert the LVDT's AC output to a more useful DC voltage proportional to core position. Additional circuitry regulates DC operating power and provides span and zero adjustability, a two-pole low pass output filter, and the voltage-to-current conversion that drives the current loop output.
- For multiple channel applications, several LVC-2500 modules can be connected together in a master/slave mode to synchronize their excitation oscillator frequency. This eliminates the effects of spurious beat frequency signals, cross talk, and intermodulation effects.
- The LVC-2500 has some simple arithmetic functions available that operate between two modules, giving A+B, A-B, (A+B)/2, and (A-B)/2. For some gaging applications that require two probes, such as material thickness measurement, these math functions could be useful, although PLC logic is more commonly used.

Packaged in a DIN-rail mounting thermoplastic case, the LVC-2500 withstands the abuse of different factory environments. Front-panel, externally accessible span and zero controls permit output offset adjustment from -100% to +100% of full-scale output. Units incorporate movable coarse gain jumpers, which allow it to operate over an LVDT full-scale output signal range of greater than 100 to 1. As the LVC-2500 does not require phase adjustment control, it works with reasonably long cables between it and the LVDT.

For general specifications and other information on the Model LVC-2500 DC-operated LVDT Signal Conditioner, visit the Macro Sensor web site at [http://www.macrosensors.com/lvdt\\_macro\\_sensors/lvdt\\_products/lvdt\\_signal\\_conditioning/signal\\_conditioners/lvc2500.html](http://www.macrosensors.com/lvdt_macro_sensors/lvdt_products/lvdt_signal_conditioning/signal_conditioners/lvc2500.html) or contact Eileen Otto at [sales@macrosensors.com](mailto:sales@macrosensors.com).

About Macro Sensors

Macro Sensors' extensive line of LVDT-based linear and rotary sensors are used for linear position measurement and

feedback in a variety of industrial applications including factory automation, motion control systems, metal fabricating, automotive assembly as well as power plants, gas/steam turbines. Incorporated in 1994, the Company offers more than 200 years of cumulative design and manufacturing experience by its key staff in serving its OEM and end-user international customer base. On June 1, 2005, Macro Sensors was acquired by AST, manufacturer of state-of-the-art Micro-Electro-Mechanical- Structures (MEMS) based pressure sensors, transducers, and transmitters. Common applications of AST sensor products are in industrial OEM, hydraulic systems, fuel cells, medical gases, HVAC/R, refrigeration, oil & gas exploration/production, and off-road vehicles. For more information on AST products and technology, visit the AST website at [www.astensors.com](http://www.astensors.com).