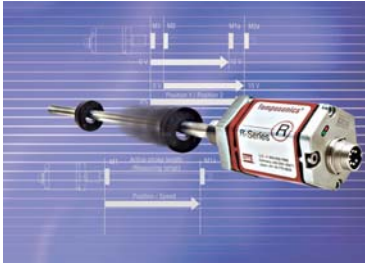




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*MTS Temposonics<sup>®</sup> R-Series sensor provides unique position and speed measurement versatility...*

## **MTS TEMPOSONICS<sup>®</sup> ANALOG LINEAR SENSOR COMBINES PERFORMANCE AND FUNCTIONALITY IN RUGGED PACKAGE**

CARY, NC– (September 25, 2006) —Building on its next-generation Temposonics<sup>®</sup> design platform, the new R-Series analog sensor from MTS provides enhanced sensing performance along with extended functionality and programmability. As one of the industry's most sophisticated and versatile analog sensors, the R-Series includes fully programmable dual channel outputs for simultaneous position and velocity, or dual magnet position, all within the same compact sensor envelope. With a variety of housing and mounting options, the R-Series analog sensor is ideal for industrial applications, especially harsh environments where EMI, shock and vibration are factors.

“The extended functionality of the new R-Series analog sensor makes it one of the most versatile linear position sensors on the market,” said Dave Edeal, Temposonics industrial marketing manager for MTS. “The programmable dual-channel outputs will enable customers to use accurate and rugged magnetostrictive sensing technology in ways that can both improve servosystem performance, and reduce per axis sensor costs.”

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**ANALOG SENSOR COMBINES FUNCTIONALITY AND RELIABILITY IN A RUGGED  
PACKAGE, P. 2**

***Dual-Magnet Position Option***

The R-Series analog sensor can produce outputs for two independent magnet marker positions simultaneously with a dual-channel electronic design. This capability, only available using Temposonics magnetostrictive sensors, enables the user to measure two parallel or relative motion axes with a single sensor. The dual-magnet feature is especially helpful when replacing legacy designs with multiple discrete or linear position sensors, such as those found in injection molding machines, multi-platen presses, and mill roller applications. For systems requiring more than two position outputs (up to 15 simultaneously), Temposonics R-Series fieldbus sensors with Profibus DP or CANbus interfaces may be used as an alternative.

***Position and Velocity Capabilities***

The R-Series analog sensor is also capable of simultaneous measurement of a single magnet marker's position and velocity. The speed range has been expanded from 25mm/s to 10m/s (1-400in), while the speed sensing resolution has been reduced to 0.1mm/s (0.004 in/sec). The R-Series can be factory- or field-configured to provide either the rate of motion magnitude only (speed) or the magnitude and direction (velocity), depending on the application requirements. Using a combination of the dual-magnet and speed capabilities, the sensor can also produce simultaneous speed outputs for two magnets. The position plus speed output options are ideal in servohydraulic applications, such as flight simulators and entertainment platforms, where the speed channel is used to extend the system bandwidth for maximum fidelity. The high resolution speed sensing option also works well in extremely slow-moving applications, like metal extruders, where the low speed precision ensures the quality of the part.

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***Field Adjustability and Visual Diagnostics***

The R-Series analog sensor comes with three options for field programming that greatly simplify the task of programming the wide range of dual-channel options. The handheld programmer is simple and economical and allows the user to establish the polarity, zero and span set points. The DIN Rail-Mounted Programmer can be mounted permanently inside the control panel to provide programming or pass-through sensor functions via a program or run switch. The PC-Based Programmer is used to set and monitor all the parameters of the sensor including polarity, zero, span, and any corresponding output settings, and can also program the dual magnet or speed and direction set points.

In addition, the new sensor incorporates visual diagnostic LEDs, to minimize troubleshooting effort and downtime that might otherwise be associated with the sensor. For example, red and green LEDs indicate normal operation, magnet not detected, or magnet out of allowable sensing range.

***Housings Options for Harsh Environments***

The R-Series analog sensor includes a reduced electronics housing length that is independent of measurement stroke and an IP 67 rating for the RH- and RP-style sensors. The compact housing ensures the sensor's accuracy in extreme conditions, as the sensor has a 100g survivability rating for shock and a 15g continuous operation rating for vibration. Vibration immunity can even be upgraded to 30g continuous operation by ordering the High-Vibration-Resistant (HVR) package. Further sensor protection is provided by double EMI shielding for the industry's highest EMC immunity (IEC 61000-4-2/3/4/5/6/8/9, Test Level 3, 4, Criteria A) and enhanced circuitry protection, including polarity to 30 Vdc (all conductors) and over-voltage to 36 Vdc, to help ensure sensor failure does not occur due to mis-wiring.

## **ANALOG SENSOR COMBINES FUNCTIONALITY AND RELIABILITY IN A RUGGED PACKAGE,**

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All R-Series products can be ordered in three different application housings: RH, RP and RF. The Temposonics model RH rod-style sensors are designed for internal mounting in applications where high-pressure conditions exist (5,000 psi continuous/ 10,000 psi spike), such as hydraulic cylinders, and come in stroke lengths up to 7.6 m (300 inch.). With its unique electronics removable cartridge design, the model RH sensor offers users the ability to replace the sensing electronics in the field quickly and easily without the need to remove the sensor housing and break the high-pressure hydraulic seal. RH-style sensors are also available with ATEX and UL-approved explosion-proof housing options for hazardous area environments and NEMA Type 4X enclosures for sanitary and washdown applications.

Model RP profile-style sensors utilize a lightweight but stiff aluminum extrusion with sensing lengths of up to 5m (200 inch.) and include two different magnet-mounting configurations: captive sliding magnet or floating magnet. The RP-style sensors are used in applications where installation inside a hydraulic or pneumatic cylinder is not possible. They are ideal for space-restrictive environments where there are high levels of dust and contamination. In addition, RP-style sensors can be externally mounted on machines via mounting brackets and configured with a variety of connector options.

Model RF flex-style sensors utilize a flexible but rugged sensing element. This design is also intended for sensing both linear and complex curvilinear motion with a minimum bend radius of eight inches. Model RF sensors are well-suited for a wide variety of custom externally mounted housing installations, and when installed inside a protective pipe, they can also be used in long hydraulic cylinder applications or those with limited installation space. A major advantage of the RF design is that it can be produced in lengths as great as 10 m (400 inch.), but since it can be coiled for shipment, requires a crate envelope only 1 m in diameter.

For more information on Temposonics R-Series Sensors, please contact: MTS Systems Corp, Sensors Division, 3001 Sheldon Drive, Cary, NC 27513. Phone: (919) 677-0100. E-mail: [info@mts.com](mailto:info@mts.com) or visit their web site at <http://www.mtssensors.com>.

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**ANALOG SENSOR COMBINES FUNCTIONALITY AND RELIABILITY IN A RUGGED PACKAGE,**

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MTS Systems Corporation is the world leader in magnetostrictive linear position sensing technology. MTS Systems Corporation is a global operation, with facilities in the U.S., Germany and Japan. In the U.S., the MTS Sensors Division has an ISO 9001 facility manufacturing rugged and reliable Temposonics position sensors as well as the highly repeatable and accurate Liquid-Level transmitters and gauges. With a strong commitment to research and development, product quality and customer service, the Sensors Division is constantly seeking ways to bring the highest value to customers.

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*To request the electronic image, call 919-872-8172, or e-mail [sking@btbmarketing.com](mailto:sking@btbmarketing.com).*