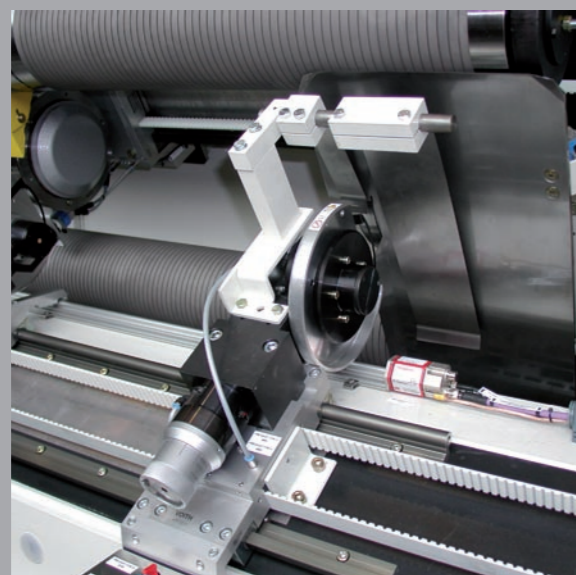
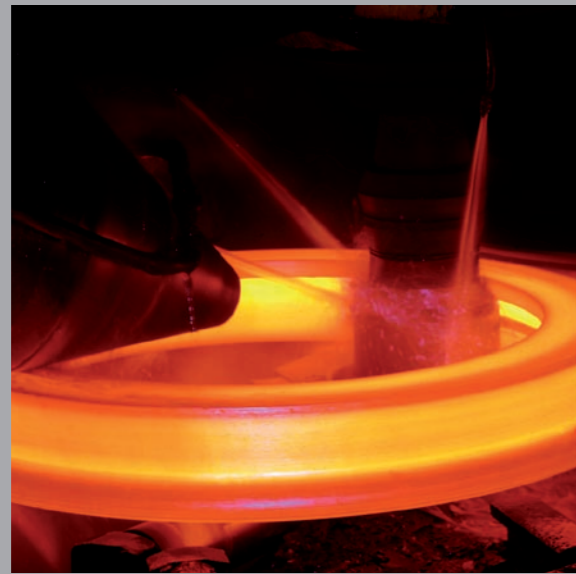


Temposonics®

Absolute, Non-Contact Position Sensors



INDUSTRIES SERVED

Magnetostriction: The best choice for your application

You are under constant pressure to improve your products, reduce your costs and maintain a competitive edge. The choice you make must provide accuracy and repeatability. You need modular solutions that can adapt to your specific application and you need a price/performance ratio that delivers value. By choosing MTS Temposonics sensors, you're choosing the leader in magnetostrictive sensors. And that means you have a huge competitive advantage.

Increased productivity through innovation

MTS sensors do more than just measure position. Intelligent electronics move some control functions to the sensor, dramatically increasing productivity. When needed, MTS can tailor application-specific software to meet your needs.



OTHER APPLICATION AREAS

Temposonics® C-Series

Compact construction, a reasonable price for large-series production, complete functionality and modularity: the C-Series position transducers provide persuading solutions for all requirements of the OEM-market.

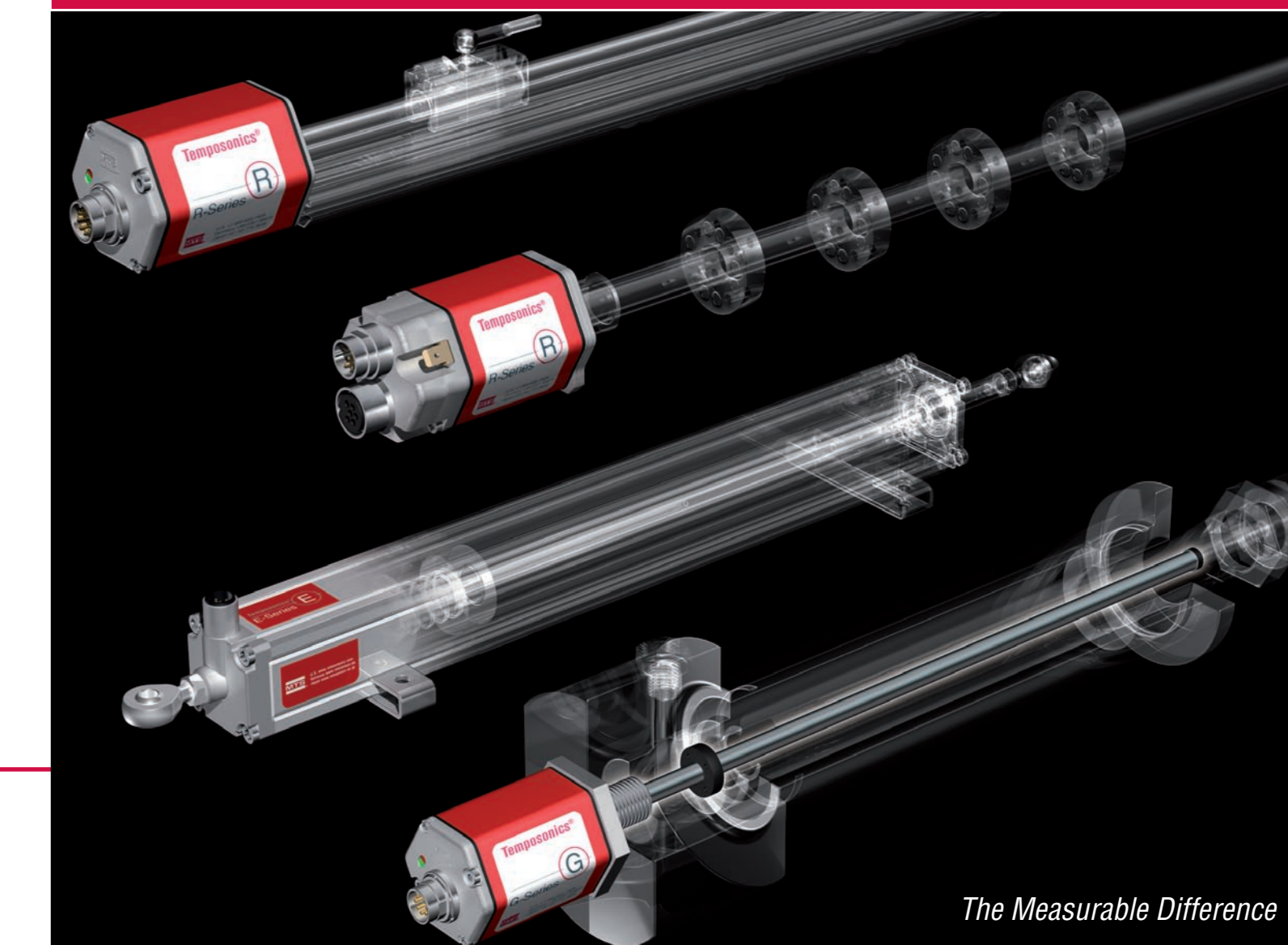
Temposonics® M-Series

Integrated in the hydraulic cylinder, the compact Temposonics position sensors for mobile off-road agricultural and construction machinery measure displacement and velocity safely even in an extremely harsh environment.

LEVEL PLUS®

Level Plus liquid level transmitters utilize the inherent advantages of magnetostrictive technology to provide the product level, interface level, and temperature measurement of a tank from one process opening. Accurately measuring multiple process variables from one opening lowers the installed costs of adding feedback to a storage tank or process vessel.

Product Overview Industrie Sensors



© MTS Temposonics® Product Overview Industrie EN 551264 RevA - Alterations reserved



MTS Sensor Technologie GmbH & Co. KG
 Auf dem Schüffel 9
 58513 Lüdenscheid, Deutschland
 Tel. + 49-23 51-95 87 0
 Fax + 49-23 51-5 64 91
 E-Mail: info@mtssensor.de
 www.mtssensor.de

MTS Systems Corporation
 Sensors Division
 3001 Sheldon Drive
 Cary, N.C. 27513, USA
 Tel. + 1-919-677-0100
 Fax + 1-919-677-0200
 E-Mail: sensorsinfo@mts.com
 www.mtssensors.com

MTS Sensors Technology Corp.
 737 Aihara-cho,
 Machida-shi, Japan
 Tel. + 81-42-775-3838
 Fax + 81-42-775-5516
 E-Mail: info@mtssensor.co.jp
 www.mtssensor.co.jp

The Measurable Difference



Headquarters
MTS Systems Corporation, Minneapolis, USA



MTS Sensor Technology
Lüdenscheid, Germany



MTS Sensors Division
Cary (North Carolina), USA



MTS Sensors Technology Corp.
Tokyo, Japan



THE COMPANY

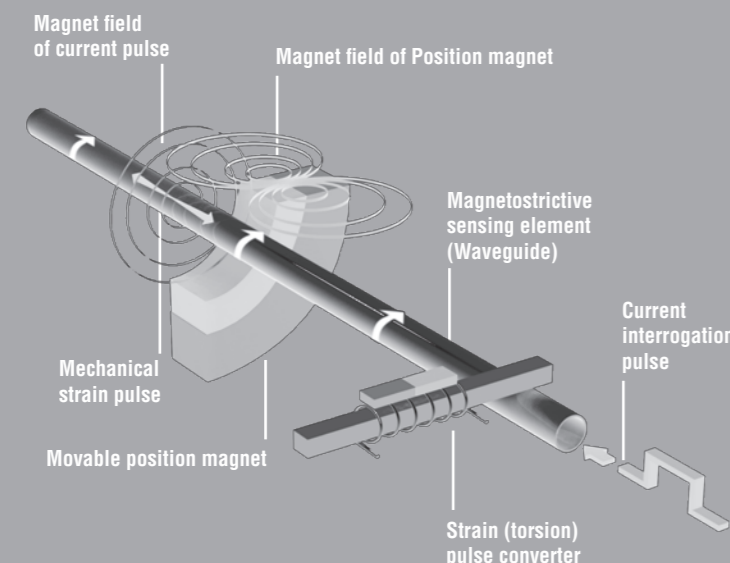
The World of MTS - Precision and Reliability

Following the founding of MTS Systems Corporation in 1951, the company rapidly developed into a leading supplier of intelligent hardware and software products in the fields of test and simulation systems and in measuring and automation technology. Today MTS Systems Corporation has over 2000 employees worldwide – 280 of whom are employed by MTS Sensors at three sites in the **USA (Cary, N.C.)**, **Germany (Lüdenscheid)** and **Japan (Tokyo)**. At MTS, intensive basic research is efficiently merged with a consistent focus on practical requirements. The results are innovative solutions for a wide range of potential industrial and non-industrial applications.

THE PRINCIPLE

Magnetostriction - A Milestone in Measurement Technology

The heart of MTS sensors is the ferromagnetic measuring element, also known as the waveguide, and a movable position magnet that generates a direct-axis magnetic field in the waveguide. When a current or interrogation pulse passes through the waveguide, a second magnetic field is created radially around the waveguide. The interaction between the magnetic field in the waveguide and the magnetic field produced by the position magnet generates a strain pulse which travels at a constant ultrasonic speed from its point of generation, the measurement point, to the end of the waveguide where it is transformed into an electric pulse in the sensor element. The resulting signal is processed by the specialized electronics of the Temposonics sensor. With our extensive know-how of ferromagnetic materials, magnetic effects and ultrasonic processes, MTS remains unrivalled in performance standards for non-contacting position measurement of the highest precision.



	R-SERIES					G-SERIES				E-SERIES			
Sensor Model	 RH Pressure-resistant stainless steel rod sensor for fluid technology	 RP Robust aluminum profile for industrial manufacturing	 RF Multifunctional industrial sensor with flexible measuring rod	 RD4 Compact sensor for Hydraulic cylinder and industrial manufacturing	 RS Position sensor in IP69K protective housing	 GH Pressure-resistant stainless steel rod sensor for automation	 GP Aluminum profile, perfect sensor for mechanical engineering	 GB Pressure-resistant rod version for hydraulic cylinders	 GT2 / GT3 Redundancy for high reliability	 EH Compact rod version designed for installation into hydraulic cylinders	 EP Aluminum profile for industrial automation technology	 EL Aluminum profile for industrial automation technology	 ER Profile sensors with "Rod & Cylinder" actuation and integral electronics
Output	Voltage: 0...10 V; 10...0 V; -10...+10 V Additional output ranges available between -10 and +10 V.					Voltage: 0...10 V; 10...0 V; -10...+10 V; +10...-10 V				Voltage: 0...10 V and 10...0 V			
	Current: 0/4 ...20 mA; 20...4/0 mA Additional output ranges available between 0 and 20 mA.					Current: 0/4...20 mA; 20...4/0 mA				Current: 4...20 mA or 20...4 mA			
	SSI: Gray- or Binary-Format; Data length selectable; synchronous / asynchronous measurement; optional Parity- and Error Bit.					-				SSI: Gray or Binary; 25 or 24 Bit, synchronous and asynchronous measurement			
	Fieldbus: CANbus; CANOpen; Profibus DP-V1; DNet; POWERLINK; EtherCAT; EtherNet/IP					-				-			
	-					Start / Stop Impuls RS 422				Start / Stopp Impuls RS 422			
Measuring Range	25-7600 mm	25-5000 mm optional up to 6200 mm	0,15-20 m larger length upon request	25 - 5000 mm	50 - 7600 mm	Analog: 50-2500 mm Digital: 50-7600 mm	Analog: 50-2500 mm Digital: 50-5000 mm	Analog: 50-1500 mm Digital: 50-3250 mm	50 - 2900 mm	50-2500 mm	50...2500 mm	50...2500 mm	50-1500 mm
Resolution	Analog: 16 Bit; 0,0015 %					Analog: infinite, controller dependent and restricted by output ripple (0,01 %)				Analog: Infinite			
	Digital: CAN 2 µm; Profibus, POWERLINK, EtherCAT u. EtherNet/IP 1 µm; SSI 0,5 µm					Digital: 5 µm dependent on controller				Digital: 10 µm			
Feature	Velocity Measurement					-				Position, two or three output channel			
	Simultaneous Multi Magnet Measurement Analog 2 positions; CANopen, POWERLINK up to 4 positions; EtherCAT up to 20 positions; Profibus, CANbus up to 30 positions; SSI differentiation measurement of 2 positions					Simultaneous Multi Magnet Measurement on Start / Stop; Analog 2 measurements				-			
	-					-				Parameter Upload for Start / Stopp			
Diagnostics	Measuring range and sensor parameters are programmable.					Measuring range programmable.				-			
	Diagnostics LEDs for general information and troubleshooting. Sensor parameters can be diagnosed and changed with programming tool. Programmable sensor parameters.					-				Diagnostics LEDs: Diagnostic data online via programming tool.			