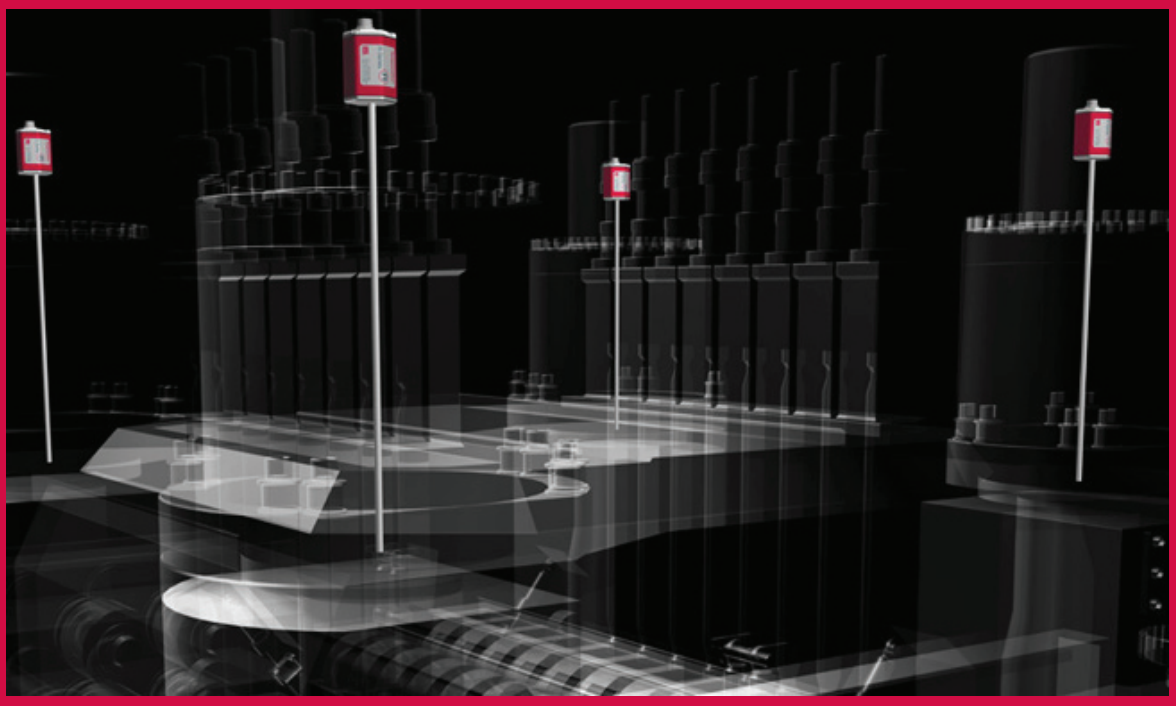
# Temposonics®

## *Magnetostrictive Linear-Position Sensors*

Absolute, Non-contact Position Sensors for

MTS® SENSORS

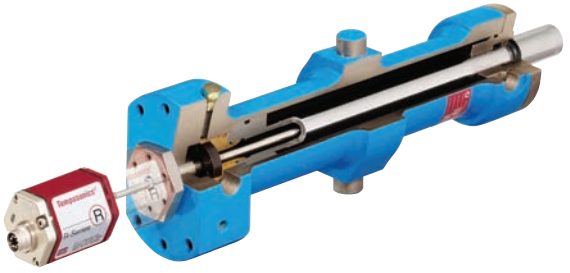
# METALWORKING



*The Measurable Difference*

# Accuracy and Dynamics for short Cycle Times

Temposonics® magnetostrictive linear-position sensors provide high speed, accuracy and durability in the harsh environment of metal forming, die casting, metal shearing presses and steel rolling mills. Many manufacturers and users choose MTS sensor solutions because they offer excellent performance and superior repeatability where high vibration and shock resistance is required.



**R-Series Sensors inserted into cylinder**

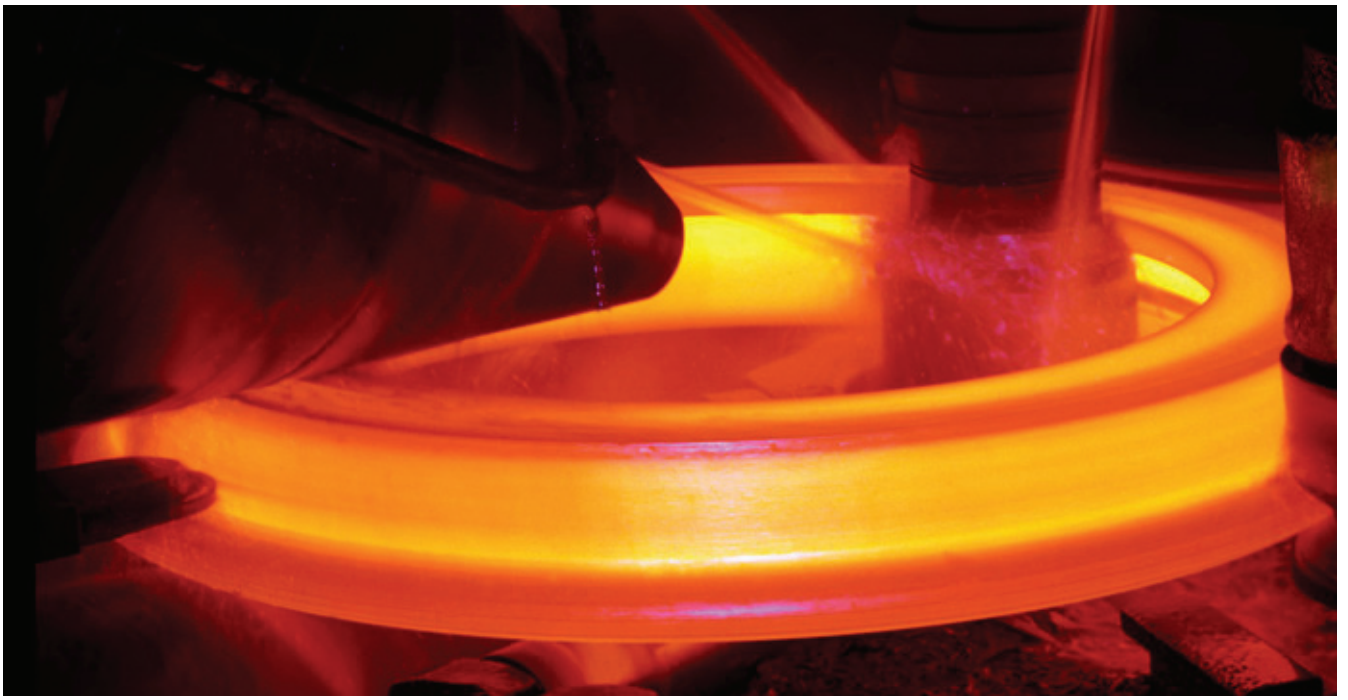
## Protected inside the Cylinder

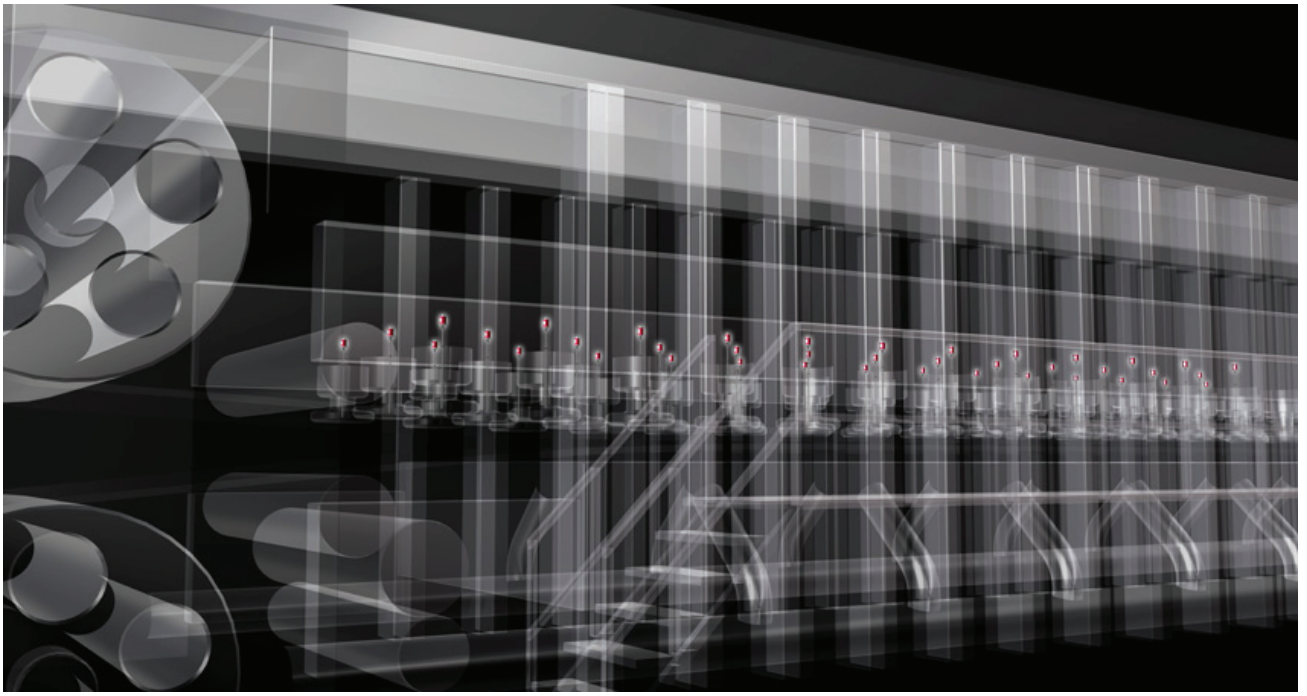
MTS Sensors has developed compact rod-style Position Sensors for applications that require inserting sensors into hydraulic cylinders, offering maximum protection from degradation due to environmental conditions. Integrated in the hydraulic cylinder the sensor controls the position of rollers, weld heads, tape feed, work pieces, cutting and punching tools etc.

## Applications include:

- Cold and hot forging
- Cut-to-length measurement
- Forming angle or stroke
- Grinding machine control
- Hydroforming
- Presses
- Die cutters

Rugged and reliable sensor construction ensures reduced maintenance and down time. MTS R and G-Series sensors offer resistance to shock and vibration, superior EMI and noise immunity for trouble-free operation. These sensors also enable customers to store pre-set configurations for a wide variety of sheet metal shapes and sizes, reducing startup and changeover times.





## *Precision in rugged Environment*

The Temposonics RH (rod style for in-cylinder integration) and Temposonics RP (profile style for external machine mounting) sensors with SSI, EtherCAT® or Profibus interface are particularly suited to metal forming and metal industry applications.

For higher accuracy requirements an internal linearity correction option is available which improves the sensor's standard nonlinearity specification of < ± 0.01% F.S. (Minimum 40 microns) down to +/- 20 microns or better.

R-Series sensors give position and velocity feedback with an data update rate of up to 10 kHz (EtherCAT, SSI). MTS proprietary measurement technology guarantees the most accurate position output while minimizing system related delays to produce dynamic, precise control. The R-Series sensors feature resolution as low as 1 micron.

Temposonics sensors are pre-configured at the factory by model code designation. For most applications, no adjustments are required for normal sensor installation and operation. If sensor parameters need to be changed on-site, MTS has developed an easy to use PC-programmer with USB interface.

## *Easy Diagnostics, Monitoring & Programming*

During monitoring and programming, there is no need to open the sensor's electronics housing. Furthermore, diagnostic feedback like "normal operation" or "missing magnet" are indicated by built-in, dual-colored LEDs easily seen on the head of the sensor. The diagnostic data of already installed sensors can be monitored on a PC via the PC programmer.

**R-Series Sensors with EtherCAT output**

**Part Number: 551170 Revision A 04-09**



MTS®
SENSORS

**MTS Systems Corporation**
**Sensors Division**

3001 Sheldon Drive
Cary, North Carolina,
27513, USA
Tel.: +1-800-633-7609
Fax: +1-919-677-2343
+1-800-498-4442
e-mail: sensorsinfo@mts.com
http://www.mtssensors.com

**MTS Sensor Technologie**
**GmbH & Co. KG**

Auf dem Schüffel 9
D - 58513 Lüdenscheid, Germany
Tel.: +49-2351-9587-0
Fax: +49-2351-56491
e-mail: info@mtssensor.de
http://www.mtssensor.de

**MTS Sensors Technology**
**Corporation**

737 Aihara-cho, Machida-shi
Tokyo 194-0211, Japan
Tel.: +81-42-775-3838
Fax: +81-42-775-5516
e-mail: info@mtssensor.co.jp
http://www.mtssensor.co.jp