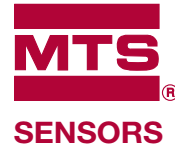


Temposonics®

Magnetostrictive Linear-Position Sensors

G-Series and R-Series Sensors
for High Shock and Vibration Applications



551073 A

Product Specification

Materials Testing



- Non-contact sensing technology
- Linear, absolute measurement
- Superior resolution and accuracy
- Full range of outputs including Current, Voltage, Digital-Pulse, SSI, CANbus, DeviceNet and Profibus
- Built-in visual LEDs for diagnostics
- Sealed IP 67 housing

Temposonics vibration-resistant sensors

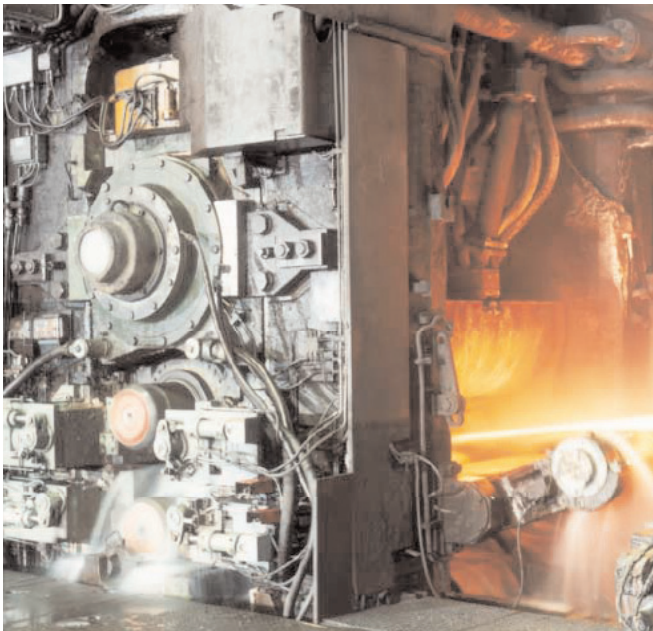
In harsh shock and vibration applications, transmitted mechanical motion can cause measurement problems in sensing systems. Besides affecting sensor life, this also presents a challenge for motion control since position feedback accuracy may be compromised.

To overcome such limitations, MTS has developed a new Temposonics sensor with increased resistance to shock and vibration for heavy duty machinery. These sensors offer best-in-class performance even when exposed to consistent vibration of up to 30 g and single shock up to 100 g – without affecting the accuracy of the measurement signal. This high level of resistance to external influences is achieved using the same sophisticated sensing element system found standard in our Mobile Equipment products*. The sensing element is the heart of magnetostrictive measurement technology, created and continually refined by MTS Sensors. Besides the inherent advantages of non-contact measurement technology, the new shock and vibration-resistant design offers performance characteristics that are unrivalled in the industry, all inside our standard sensor housings.

This new design is suitable for applications in metals production, stamping and die casting, wood production machinery and materials testing industries to name a few.

Metal Rolling Mills

* Patent pending



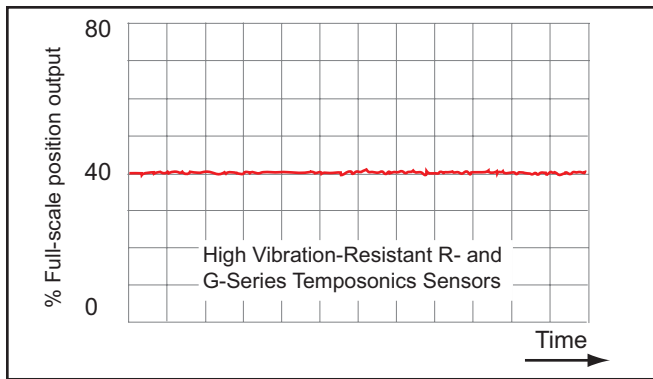
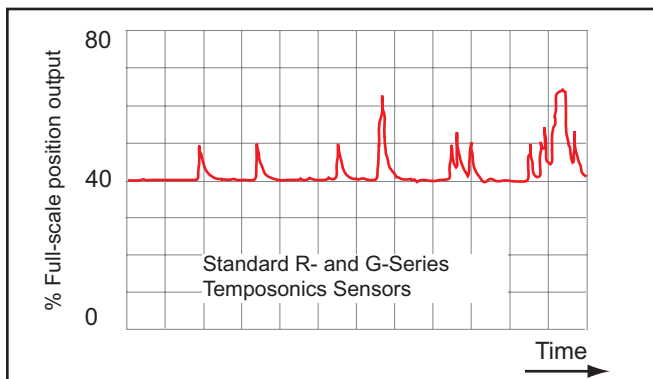
All specifications are subject to change. Please contact MTS for specifications that are critical to your needs.

Accuracy in extreme environments

In numerous field tests in a variety of industrial applications, our new Temposonics vibration resistant sensors have left other position measuring systems far behind.

In lengths up to 2000 mm (78.7 in.), this product provides uncompromised signals in these high vibration and shock applications, thus opening the road to many new industrial automation fields where applying position sensors has traditionally been impractical.

For example, with Temposonics the forces applied during punching, pressing, nibbling or cutting in the metal working industry now have little or no influence on measurement accuracy (see chart below). Another example is test machinery where high vibration is a consistent component of the machine dynamic environment.



Performance of a Temposonics high vibration-resistant sensors compared to the standard design with magnet position held fixed while the sensor housing is subjected to 30 g vibration (2x standard product specification limit).

Parameter	Specification
Outputs:	Analog, Digital Pulse, SSI, CANbus, DeviceNet and Profibus*
Non-linearity:	< ± 0.01% full stroke (minimum ± 40 µm)
Measuring range:	Rod style: 50 - 2000 mm (2 - 78.7 in.)
Shock rating:	100 g (single hit/IEC standard 68-2-27 (survivability))
Vibration rating:	30 g/10-2000 Hz/IEC standard 68-2-6 (operational)
Housing:	Rod (RH) or Profile (RP) styles

How to order

The high vibration-resistant option can be easily ordered using the standard G-Series or R-Series model configuration code with the supply voltage code replaced by the letter A for 24 Vdc and B for +9 to +28.8 Vdc*

G-Series: G _____ A _ . . .

or

R-Series: R _____ A _ . . .

* Consult individual sensor data sheets for more product specifications and sensor ordering codes:

R-Series Analog Output – 550992

R-Series SSI Output – 550989

R-Series CANbus Output – 550991

R-Series DeviceNet Output – 550651

R-Series Profibus Output – 550990

G-Series Analog and Digital Pulse Outputs – 550959

Wood Lathes & Sawmills



Part Number: 06-06 551073 Revision A

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All other trademarks are the property of their respective owners.

All Temposonics sensors are covered by US patent number 5,545,984. Additional patents are pending.

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