

Use Case Spotlight



Military & Defence

Magnetostrictive Linear Position Sensors for Reliable Motion Control



For mission-critical position sensing – where accuracy, reliability, and longevity are a must.

– TRUST THE EXPERTS –

WHY POSITION MEASUREMENT?

Whether on land, sea, or in the air, accurate position feedback is essential for mission success, operational safety, and long-term system reliability. Temposonics® position sensors are engineered to meet the highest standards, delivering uncompromising accuracy and reliability over the years in extreme and safety-critical environmental conditions.

WHY WE PERFORM WHERE OTHERS FAIL

■ MAGNETOSTRICTION: PROVEN & ROBUST TECHNOLOGY

- **Absolute, non-contact position sensing**
 - No recalibration required
 - No mechanical wear
 - Maintenance-free operation
- **Mission-critical precision**
 - Reliable positioning in real-time, even under dynamic conditions
 - Picosecond-accurate measurement enabled by a proprietary waveguide that we design, manufacture, and control

■ RUGGED & INNOVATIVE DESIGNS

- **Rugged**
Resistant to shock, vibration, dust, humidity, temperature extremes, and corrosive environments
- **Long-term reliability**
Proven performance over many years of continuous operation
- **Wide range of form factors and connector assembly, interfaces and certifications** for seamless integration in your systems (in-cylinder or external mounted), easy serviceability and maximum flexibility

■ CUSTOMIZED SOLUTIONS

- **Customer-specific** design and development tailored to application requirements

IN PRACTICE...

BEST
RESOLUTION
0.1 μm

SHOCK
150 g/11 ms
VIBRATION
30 g

TEMPERATURE
RESISTANCE
-40 °C
+120 °C

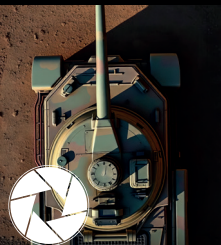
MULTIPOSITION
MEASUREMENTS
UP TO
30 Magnets

STROKE
LENGTHS
UP TO
50 Meters

SIL2
MH-SERIES SAFETY SENSOR



WE UNDERSTAND YOUR APPLICATION ...



Positioning of optical & surveillance cameras



Steering automation & suspension systems



Weapon positioning & alignment



Stabilizer, lift control, boom extension



Radar & antenna positioning



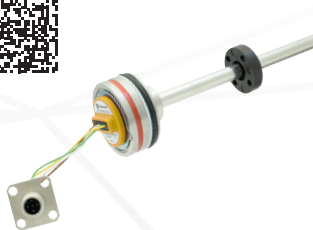
Tank level measurement

AND DELIVER THE OPTIMAL SENSOR SOLUTION WITH EXPERT SUPPORT:



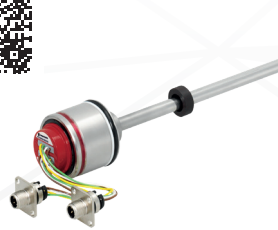
R-Series V FLEXIBLE

- High performance sensor
- Flexible rod with 100 mm bend radius
- Stroke length: 150...20.000 mm



MH-Series SAFETY

- Suitable for Safety Integrity Level 2 (SIL-2) applications & category 2 PLd
- IEC 61508, ISO 13849-1/13849-2
- Stroke length: 50...5000 mm



MH-Series REDUNDANT

- With two redundant sensor elements in a single pressure resistant rod
- Stroke length: 50...2500 mm



MH-Series XTERNAL MOUNT

- Replaceable electronic module automatically pairs with the existing sensing element inside the cylinder
- Stroke length: 50...2500 mm

A TRUSTED PARTNER



Decades of leadership in magnetostrictive position sensing



Deep, hands-on application expertise across various industries



Highest quality through in-house R&D and production



Commitment to quality, consistency, and compliance



Thinking globally. Acting locally.

As part of the Amphenol Group, we operate state-of-the-art production facilities in Germany (Lüdenschaid & Dortmund) and the USA (Cary, NC), supported by a global network of direct sales offices and authorized distributors.

50 YEARS
1975 - 2025



temposonics.com

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