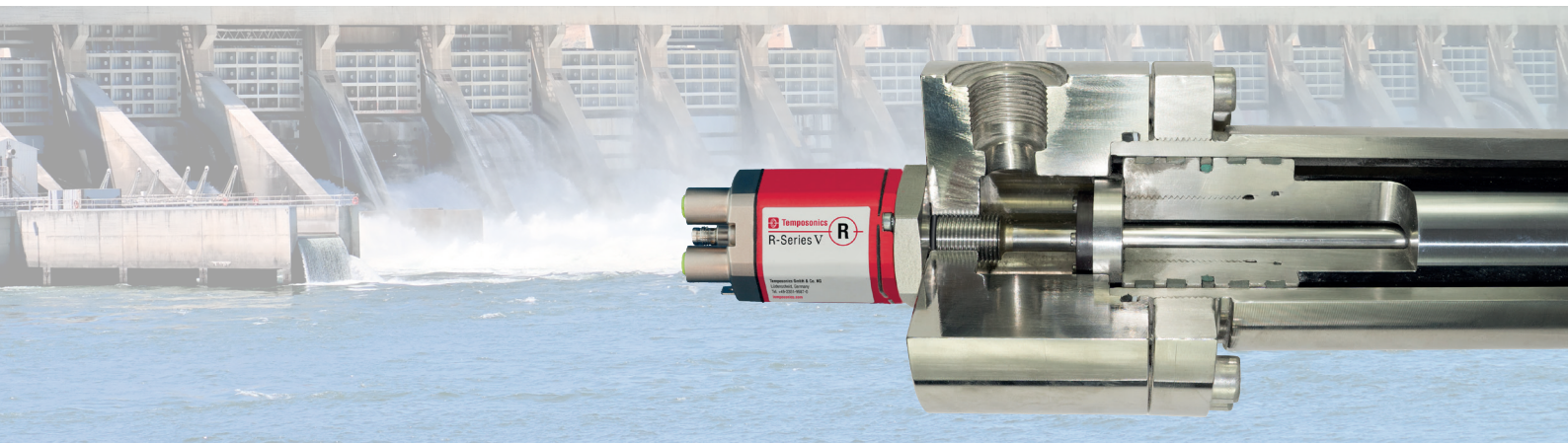


Use Case Spotlight

Hydropower Applications

Magnetostrictive Linear Position Sensors for Reliable Motion Control



Where critical infrastructure depends on fail-safe performance.

– TRUST THE EXPERTS –

WHY POSITION MEASUREMENT?

Whether in dams, hydropower plants, or flood control systems, accurate position feedback is essential for operational safety, efficient water management, and long-term infrastructure reliability. Temposonics® linear position sensors are designed for extreme operating conditions, providing precise, maintenance-friendly performance and long-term durability in wet and corrosive environments.

WHY WE PERFORM WHERE OTHERS FAIL

■ MAGNETOSTRICTION: PROVEN & ROBUST TECHNOLOGY

- **Absolute, non-contact position sensing**
 - No recalibration required
 - No mechanical wear
 - Maintenance-free operation
- **Safety-critical precision**
 - Reliable positioning in real-time, even under harsh 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
- **EMI immunity**
Stable performance over many years of continuous operation
- **Wide range of form factors** (standard or embedded mounting, rigid or flexible rod) & connector assembly, interfaces and certifications for seamless integration in your plant, 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...+120 °C
–40...+248 °F

MULTIPOSITION
MEASUREMENTS UP TO
30 Magnets

STROKE LENGTHS
UP TO
50 m
1968 in.

WE UNDERSTAND YOUR APPLICATION ...

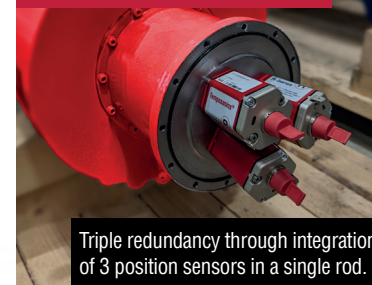
RELIABLE REMOTE MONITORING is essential in hydropower applications. Temposonics® R-Series V and G-Series V sensors can be enhanced with smart diagnostic support, improving system reliability, simplifying maintenance, and enabling efficient operation.



The compact and portable TempoLink® enables flexible service, while the TempoGate® is designed for permanent installation in control cabinets. Both devices act as smart interfaces between the sensor and the user, delivering valuable diagnostic and operational data for optimized system monitoring and predictive maintenance, including:

- Parameter settings, such as resolution and measurement direction
- Internal sensor temperature
- Total operating hours
- Distance traveled by the position magnet
- Sensor information, including order code and serial number

ENGINEERED FOR HYDROPOWER



Triple redundancy through integration of 3 position sensors in a single rod.

AND DELIVER THE OPTIMAL SENSOR SOLUTION WITH EXPERT SUPPORT:



R-Series V FLEXIBLE (RF5)

- High performance sensor
- Flexible rod with 100 mm bend radius
- Stroke length: 150...20.000 mm
- Additional information via the smart assistants



R-Series V ROD (RH5)

- High performance sensor
- Available with flexible sensing element
- Stroke length: 25...7620 mm
- Additional information via the smart assistants



G-Series V REDUNDANT (GT5)

- Double or triple redundant sensor elements in a single pressure resistant rod
- For enhanced safety applications
- Stroke length: 50...3500 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 (Lüdenscheid & Dortmund) and the USA (Cary, NC), supported by a global network of direct sales offices and authorized distributors.

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