

## Novosound Belenus

A compact, non-invasive ultrasound sensor for the continuous monitoring of corrosion and erosion. With its low-profile size and flexibility, the Belenus can be fitted to a range of structures including pipes, storage tanks and pressure vessels, enabling 24/7 asset monitoring. Suitable for fixed installation in both extreme and ambient environments, the Belenus is the world's first corrosion monitoring sensor that can operate completely soaked in high-temperature atmospheres up to 400°C (752°F) for extended periods of time.

The Belenus provides real-time, asset integrity data, enabling operators to proactively manage corrosion risk, make data-informed decisions and reduce the overall cost of operations.

### Key Features and Benefits

- ✓ Continuous operation completely soaked in high temperatures up to 400°C, with no required cooling
- ✓ Low profile and lightweight
- ✓ In-service installation reduces the cost of downtime
- ✓ Intelligent asset monitoring enabling proactive predictive maintenance scheduling
- ✓ High resolution monitoring for early warning of wall thickness loss
- ✓ Minimal disruption to operations
- ✓ Couplant free operation, with a flexible transducer conforming directly to asset surfaces
- ✓ Belenus X available for monitoring in safety critical & high-risk environments (ATEX, IECEx & UKEX)



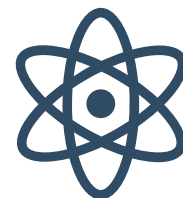
### Applications



OIL & GAS



POWER GENERATION



NUCLEAR

<b>General</b>	
Belenus Dimensions	50x32x20mm
Cabling	Up to 10m (custom options available, including High temperature cabling)
Connector	BNC
<b>Probe Features</b>	
Probe Type	0° UT Probe
Operating Frequency	5-10 MHz
Active Element Size	5.5mm
-6dB Bandwidth	50%
-20dB Bandwidth	100%
Operating Temperature	-50°C to 400°C
Thickness Range in Steel	>2mm
Casing Material	316 Stainless Steel
<b>Fixtures</b>	
Fixture Size	straps available from 2" to 14" NPS ( >14" custom fixtures are available)
Fixture Material	316 Stainless Steel
<b>Drive Electronics/ Compatibility</b>	
Excitation Voltage	up to 100V
Excitation Width	up to 49ns
PRF	up to 5kHz
Belenus X certification: Ex ia IIC T6...T1 Ga. Certificates available on request	



**NOVOSOUND**  
**NEBULA** Data Capture

The Novosound Nebula is a cloud-based platform for remote asset management, enabling users to track the condition of assets in real-time and make informed data-driven decisions. At the heart of the system is a powerful datalogger that will interrogate sensors and capture data. This data is stored, processed and managed in the Cloud through the use of secure protocols. This allows key operational decisions and analysis of the integrity and condition of assets across a range of locations via the most optimal data connectivity protocol, whether wireless or cabled.

## Benefits

- ✓ **Performance** – alarm protocol enabled allowing for localised areas of concern to be continuously monitored
- ✓ **Data management** – Expert analysis and review of data, presented to clients in a user-friendly format
- ✓ **Collaboration** – Multiple personnel having access to the same data remotely enabling faster decision making
- ✓ **Security** – Data is securely stored in one centralised location and accessed through secure protocols



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