

EchoCorr™ non-intrusive buried pipe thickness monitor

Reduce the cost and complexity of on-stream buried pipe corrosion monitoring

High sensitivity ultrasonic technology enables non-intrusive pipe wall corrosion and erosion monitoring across a range of applications including buried pipe lines, and is an ideal tool for ICDA* evaluation and compliance.

Keywords: corrosion, erosion, in-service monitoring, hazardous environments, ultrasonics, ICDA

ICDA* = internal corrosion direct assessment



HOTSENSE DE

- **Low cost dual element** ultrasonic monitoring sensors for widespread distribution
- **Through coating** measurements without removal of protective coatings possible
- **Installation on all sizes** of piping from 2" NPS
- **Built on the award winning HotSense™ ultrasonic platform**
Next generation sensors powered by the proprietary Ionix HPZ piezoceramic
- **-55 to +120 °C** [-67 to +248 °F] continuous measurement temperature range
- **Permanent or semi-permanent installation** in extreme or hazardous environments
- **Manual or automated** data collection

DEPLOYMENT

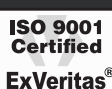
- Deploy on to live assets without shutdown or isolation
- High sensitivity thickness measurements from 1.0 to 50 mm [0.04 to 2.0"]
- Integrated magnetic fixing for ease of installation on ferrous assets
- Epoxy fixings for large pipes and vessels
- Universal strap fixing for small pipe diameters and semi-permanent installation
- Deploy around the circumference, spine or survey grid of piping
- Sealed with STOPAQ to prevent corrosion and protect your buried installation

SOLUTION BENEFITS

- Fixed UT sensors provide increased measurement precision and collection frequency for reliable and real-time corrosion trending
- Optimise ICDA, Asset Integrity and Performance Management (AIM/APM) programmes with accurate and reliable wall loss data
- Reduce operational costs and maximise production margins
- Data collection using high precision UT gauge and Measurement Hub
- Autonomous data collection and data direct to control centre with wireless options



EchoCorr™



STANDARD ECHOCORR SYSTEM SPECIFICATION

PARAMETER	VALUE	UNIT
Operating Temperature	-55 to +120 / [-67 to +248]	°C / [°F]
Wall Loss Resolution	2.5 / 0.0001	µm / [in]
Range in steel	1 to 50 / [0.04 to 2]	mm / [in]
Thickness Accuracy	10 / 0.0004 at constant temperature	µm / [in]
Temperature Accuracy	+/- 2 / [3.6]	°C / [°F]
Cable length(s)	15 [50] standard, longer by request	m / [ft]
Ruggedisation	Certified to IP 66/68 Stainless steel construction	-
Memory Storage	20,000 readings + A-scans as standard Unlimited by increasing SD card size	-
Data View	Export as .csv, or PC software available	-

When used with Measurement Hub as a manual monitoring solution.
Also compatible with autonomous, wireless solutions - contact Ionix for details.
Acoustic characteristics certificate of conformity to ISO 22232-2 supplied with each unit

For other specification requirements please contact our sales team

STANDARD DEPLOYMENT

PARAMETER	VALUE	VARIABLES
Buried pipeline - standard installation kit includes		
Coupling	High performance industrial epoxy	
Fixing	Magnetic, reinforced with STOPAQ® CZ H paste	Optional retention lanyard
Mechanical protection	STOPAQ® covering tape	Optional armoured cabling
Diameters	2" NPS and larger	
Installation on coatings	Yes, performance dependent on thickness and type	

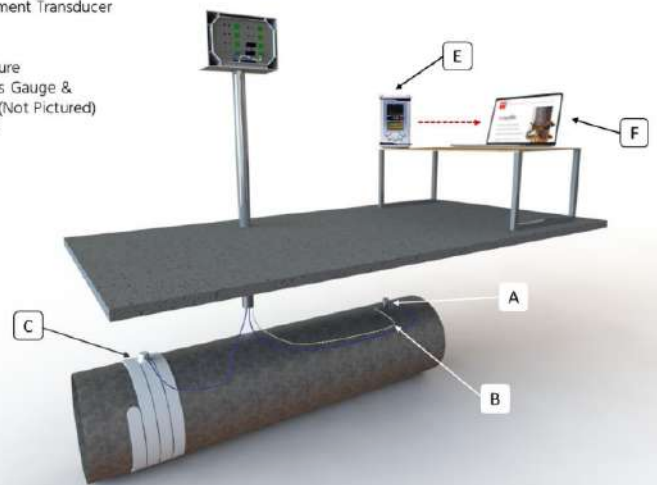
Measurement Hub™

Number of sensors	Up to 8 sensors per hub
Connectors	Lemo 00
Pole Mount	2"

Stopaq is a registered trademark of Seal for life

**Contact Ionix to order, for further information
or to find a solution for your application**

A – HotSense Dual Element Transducer
B – Thermocouple
C – Probe Sealing Kit
D – Pole Mount Enclosure
E – Ultrasonic Thickness Gauge & Thermocouple Reader (Not Pictured)
F – Data transfer to PC



SENSOR CERTIFICATION

Ex II 1 GD Ex ia IIC T* Ga / Ex ia IIIC T* Da
CE UK IP 66/68

TYPICAL ECHOCORR INSTALL



Measurement Hub



HotSense DE sensors with integrated magnetic mount and cables



Want to discuss your demanding environment needs?

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