

# On-stream, high-temperature corrosion mapping with HotSense™

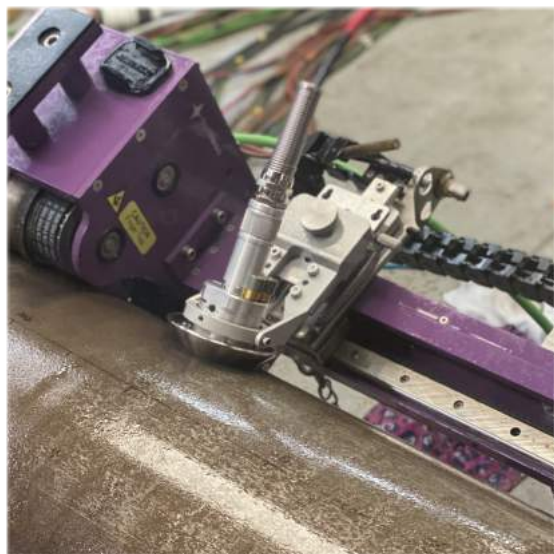
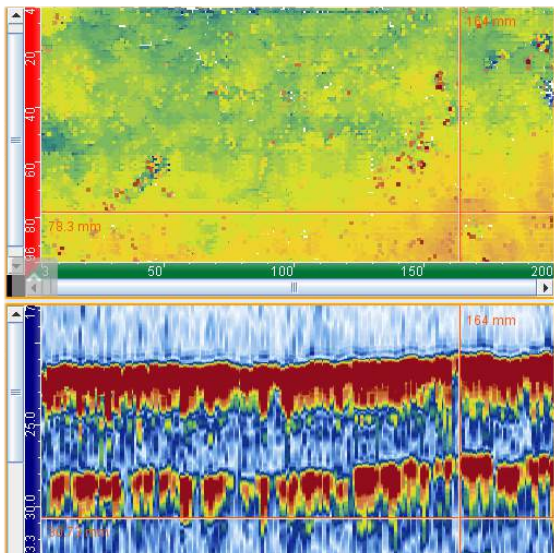
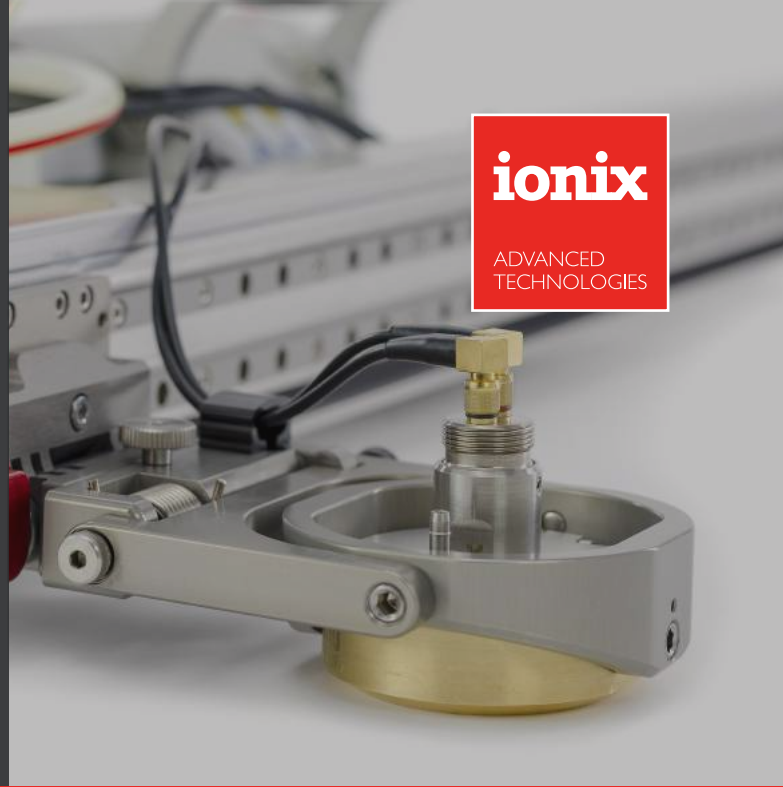
Minimise operational risk and maximise productivity with on-stream asset intelligence

Dual element ultrasonic transducer for high-temperature thickness, corrosion and erosion monitoring for use in applications across refining, oil & gas, energy, nuclear, aerospace and process sectors.

**Keywords:** corrosion, erosion, in-service inspection, extreme environments, high temperature

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ADVANCED TECHNOLOGIES



## HOTSENSE

- Built on the award winning HotSense™ ultrasonic platform powered by the proprietary Ionix HPZ piezoceramic
- Dual element thickness gauging transducer for use in extreme environments
- -20 to +550 °C [-4 to +1,022 °F] wide measurement temperature range for all in-service assets
- No cooling required. Increase your productivity between calibrations and reduce duty cycling to maximise scan time.
- Stable signal for maximum reliability and repeatability
- Enhanced wear resistance for the most extreme environments and applications
- Compatible with industry standard ultrasonic inspection hardware

## APPLICATION

- Map remaining wall thickness on hot assets, on-stream, without the need to shutdown or isolate
- Measure remaining wall thicknesses from 2.5 to 50 mm thick with commercial flaw detectors
- Compatible with recommended high-temperature ultrasonic couplants
- Robust stainless steel construction
- Range of accessories available, including guards, high-temperature cabling and probe holders for the highest-temperatures

## SOLUTIONS

- On-stream mapping of high-temperature assets to reduce failure and un-planned outages and shutdowns.
- Increase safety with reduced exposure and man-hours at asset
- Support asset integrity and corrosion management programs (including RBI, FFS & FEA) with high-temperature remaining wall thickness
- Compliant to EN 12668:2 and ASTM E/1065 to meet your existing asset integrity UT procedures

hotsense® | Powered by ionix

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# HS582i AUT



## HS 582i TRANSDUCER SPECIFICATION

PARAMETER	VALUE	UNIT
Surface temperature range*	-20 to +550 / [-4 to +1022]	°C / [°F]
Storage temperature	-55 to +80 / [-67 to +176]	°C / [°F]
Tip diameter	11 / [0.434]	mm / [in]
Custom geometries available on request		
Connector type	Dual UNF 10/32 Microdot	-
Ruggedisation	IP 68 Stainless steel construction	-
Transducer centre frequency	5	MHz
Active element diameter	8	mm
Wear allowance	1.5	mm
Compatible with UT flaw detectors and thickness gauges		
Acoustic characteristics certificate of conformity to EN 12668:2 supplied with each unit		

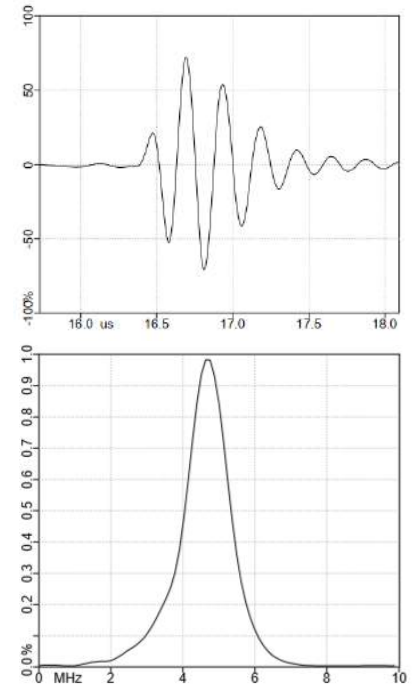
\*Contact time should be limited to < 10 seconds above 350 °C  
For other specification requirements please contact our sales team

## COMPATIBLE SCANNER SPECIFICATION

PARAMETER	VALUE
Circumferential scan diameter	4" NPS to fl
Scan grid	0.5 to 150 mm in 1 mm steps
Scan arm length	up to 600 mm
Max scan speed	up to 730 mm/s
Surface Temperature	up to 350 °C
Power requirements	100-240 VAC 50/60 Hz
Scan control	
Inspection surface	Ferrous metals - magnetic wheel mounts

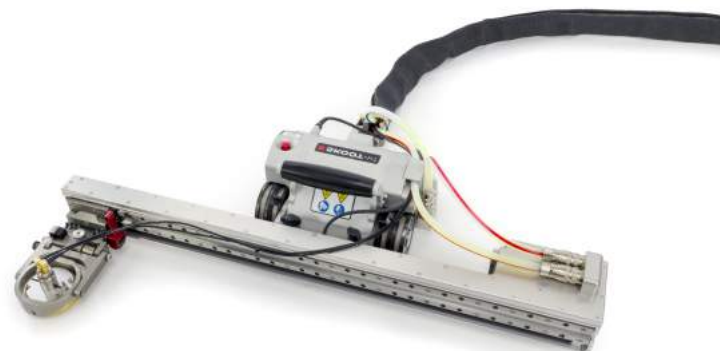
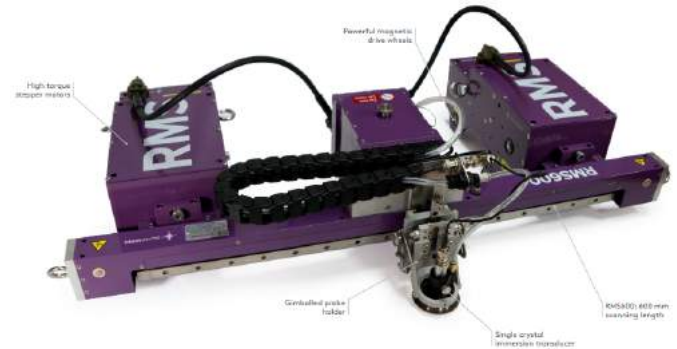
Contact Ionix to order, for further information or to find a solution for your application

## TYPICAL ULTRASONIC RESPONSE



## CERTIFICATION

Meets the requirements of EN 12668:2 and ASTM E/1065



Ionix recommends **ECHO ultrasonics** for high-temperature couplants



Want to discuss your demanding environment needs?

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