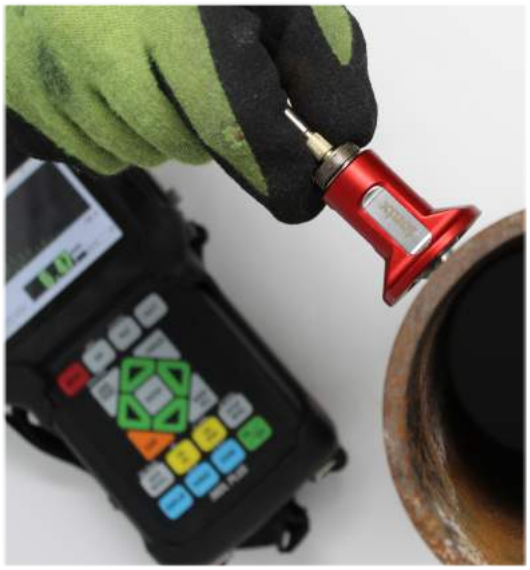
HotSense™ ultrasonic thickness gauging transducers

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

Dual element ultrasonic transducer for on-stream 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



HOTSENSE

- **Built on the award winning HotSense™ ultrasonic platform** powered by the proprietary Ionix HPZ piezoceramic
- **Dual element thickness gauging transducers** in a range of frequencies and tip sizes for use in extreme environments
- **-55 to +550 °C** [-67 to +1,022 °F] wide measurement temperature range for all in-service assets
- **No cooling** required up to 350 °C / 662 °F. Increase your productivity between calibrations and reduce duty cycling
- **Stable signal** for maximum reliability and repeatability
- **Enhanced wear resistance** for the most extreme environments and applications

APPLICATION

- Make wall thickness measurements on hot assets, in-service, without the need to shutdown or isolate
- Measure remaining wall thicknesses from 1 to 500 mm thick with compliant thickness gauges.
- Compatible with recommended high-temperature ultrasonic couplants
- Robust stainless steel construction, and large tip options for scanning
- Range of accessories available, including port inspection wand, safety guards and scanner probe holders for the highest-temperature applications

SOLUTIONS

- Maximise productivity with reduced down-time and outages with in-service inspection
- On-stream corrosion surveys and inspection of forged and cast components
- Support asset integrity and corrosion management programs (including RBI, FFS & FEA) with high-temperature remaining wall thickness
- Compatible with industry standard ultrasonic inspection hardware
- Compliant to ISO 22232-2 and ASTM E/1065 to meet your existing asset integrity UT procedures

hotsensell® | Powered by ionix

ix

HotSense™ UT

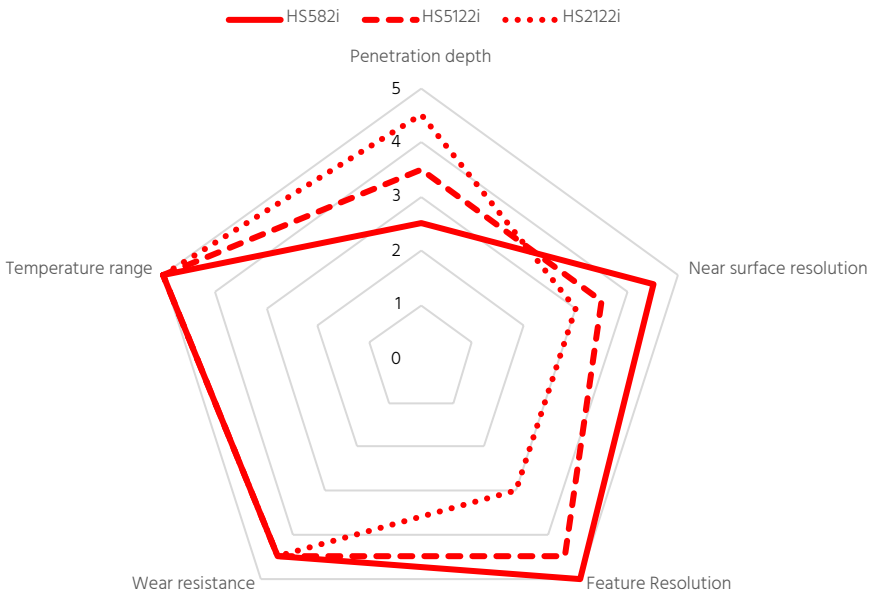
TRANSDUCER RANGE SPECIFICATION

PARAMETER	VALUE	UNIT
Surface temperature range*	-55 to +550 / [-67 to +1,022]	°C / [°F]
Storage temperature	-55 to +80 / [-67 to 176] Store dry and in clean condition	°C / [°F]
Connector type	Dual UNF 10/32 Microdot	-
Wear allowance	1.5 / [0.06]	mm / [inch]
Ruggedisation	Weatherproof Stainless steel construction	

PRODUCT CODE	DESCRIPTION	RANGE IN STEEL	FOCUS
Acoustic characteristics certificate of conformity to ISO 22232-2 supplied with each unit			
HS 582i	5 MHz, 8 mm diameter/2 active element Tip diameter 11 mm / [0.434"]	2 to 50 mm [0.08 to 2"]	10 mm [0.39"]
HS 5122i	5 MHz, 12 mm diameter/2 active element Tip diameter 18 mm / [0.708"]	2.5 to 250 mm [0.98 to 9.84"]	20 mm [0.79"]
HS 2122i	2.5 MHz, 12 mm diameter/2 active element Tip diameter 18 mm / [0.708"]	10 to 500 mm [0.39 to 19.7"]	30 mm [1.18"]

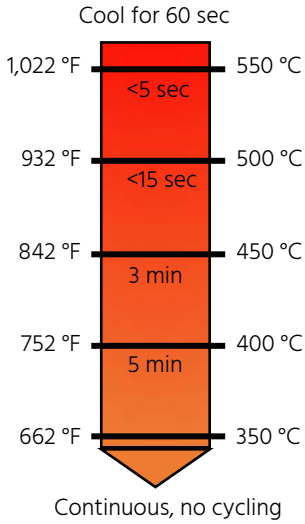
Compatible with UT gauges, flaw detectors and scanners
*See "temperature cycle chart"
For couplant, cables accessories and other specifications please contact our sales team

MEASUREMENT PERFORMANCE



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

TEMPERATURE CYCLE CHART

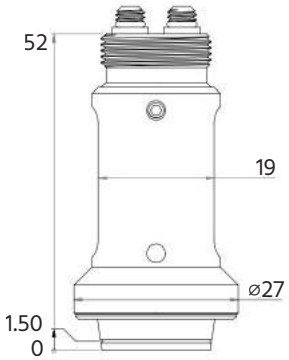


Due to the varied range of applications, this chart is provided as a guide only.
Use outside of these parameters can reduce the lifetime of the transducer

CERTIFICATION

Meets the requirements of ISO 22232-2 and ASTM E/1065

HSX122i



HSX82i