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.
- **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 shut down or isolate.
- Measure remaining wall thicknesses from 2.5 to 50 mm thick with commercial flaw detectors or 1-500 mm with specific instrument setups.
- 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 guard 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.

hotsense® | Powered by ionix

HotSense™ UT

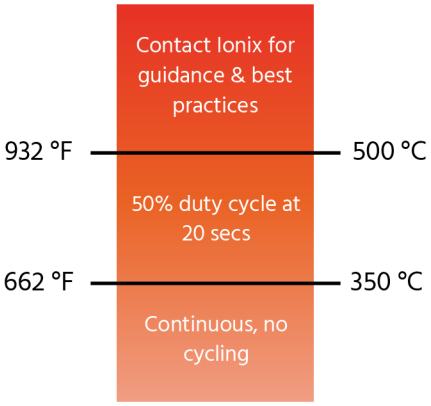
STANDARD SYSTEM SPECIFICATION

PARAMETER	VALUE	UNIT
Continuous surface temperature range*	-55 to +350 / [-67 to +662]	°C / [°F]
Storage temperature	-55 to +80 / [-67 to 176] Store dry and in clean condition	°C / [°F]
Connector type(s)	Dual UNF 10/32 Microdot or Lemo 00	-
Wear allowance	1.5 / [0.06]	mm / [inch]
Ruggedisation	Weatherproof Stainless steel construction	-
Ex certification	Intrinsically Safe option available	-

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

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 lifetimes of the transducer.

CERTIFICATION

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

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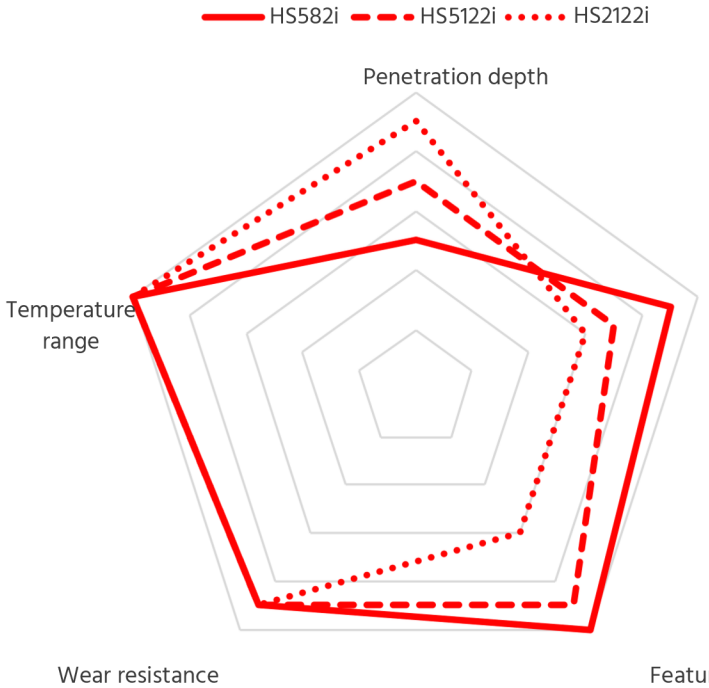
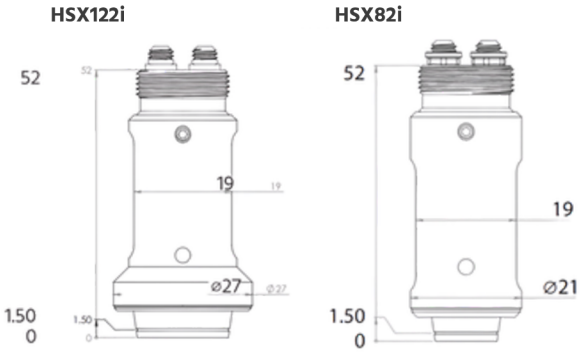
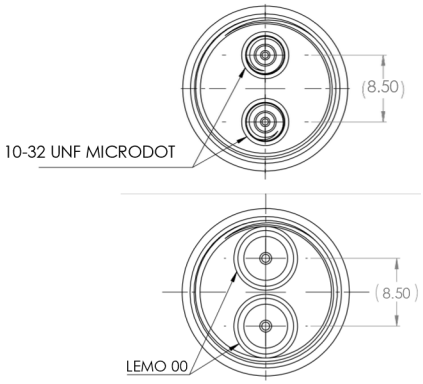
MEASUREMENT PERFORMANCE







Dimensions shown in mm

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

To explore more about HotSense™ UT, scan the QR code

Want to discuss your demanding environment needs?

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