

NEW!

HotSense™ high-precision fingertip thickness gauging transducer

HotSense™ HS782i for precise reliable thickness gauging in extreme environments

Dual element ultrasonic transducer with enhanced wear and temperature resistance for detecting pitting and corrosion in challenging environments. Its compact, fingertip design allows easy access to hard to reach areas.

Keywords: corrosion, pitting, in-service inspection, extreme environments, ultrasonic testing, high precision



ionix

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 across the widest temperature range **-55 to +200 °C** [-67 to +392 °F] for in-service assets.
- **Wear resistant transducer** and **robust potted coaxial cable** ensure reliable use and long-lasting durability

APPLICATION

- **Measure remaining wall thickness** from 1 to 25 mm with compatible thickness gauges on hot components, in-service without shutdown or isolation
- **2-3X increased wear resistance** without the need for additional wear faces
- **Compact design** for easy measurement with increased resolution for pitted materials, limited access and poorer surface conditions
- **Better data** from easier and more accurate calibrations at temperature
- **Compatible with industry standard** ultrasonic gauges and flaw detectors
- **Compliant to ISO 22232-2 and ASTM E/1065** standards to meet existing asset integrity UT procedures

SOLUTIONS

- Maximise productivity with reduced down-time and outages with on-stream inspection.
- Perform real-time, high-temperature inspection to optimise shutdowns.
- Reduce premature probe failures with increased temperature resilience and increased wear resistance to maximise probe lifetime.
- Compatible with auto-functions of most gauges eg. DMS Go and DM5E series..

hotsense® | Powered by ionix

ix

HS782i



TRANSDUCER RANGE SPECIFICATION

| PARAMETER | VALUE | UNIT |
|---|---|--------------|
| Surface temperature range* | -55 to +200 / [-67 to +392] | °C / [°F] |
| Storage temperature | -55 to +80 / [-67 to 176] Store dry and in clean condition | °C / [°F] |
| Connector type | Dual Lemo 00 Male | - |
| Wear allowance | 1.5 / [0.06] | mm / [inch] |
| Ruggedisation | Weatherproof Stainless steel construction | |
| Acoustic characteristics certificate of conformity to ISO 22232-2 supplied with each unit | | |
| Centre frequency | 7.5 (+/-10%) | MHz |
| Active element diameter | 9.6 mm / [0.378"]/2 dual | mm / [inch] |
| Integrated cable length | 200 / [78.74"]" | cms / [inch] |

Compatible with UT gauges, flaw detectors and scanners

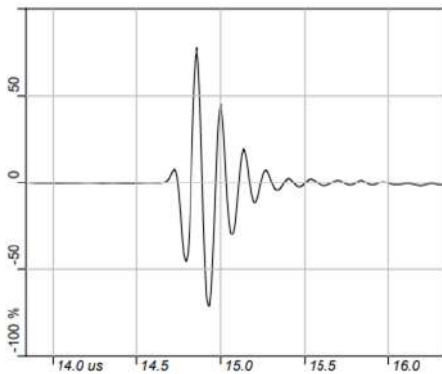
*See "temperature cycle chart"

For couplant, cables accessories and other specifications please contact our sales team

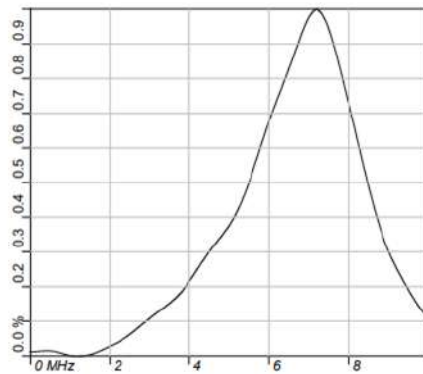
TRANSDUCER RANGE SPECIFICATION

| PARAMETER | VALUE | NOTES |
|---------------------|---------------------------------|-----------------------|
| Range in steel | 1 to 25 mm / [0.04 to 0.984"] | with compatible gauge |
| Natural focus depth | 5 mm / [0.197"] | in steel |

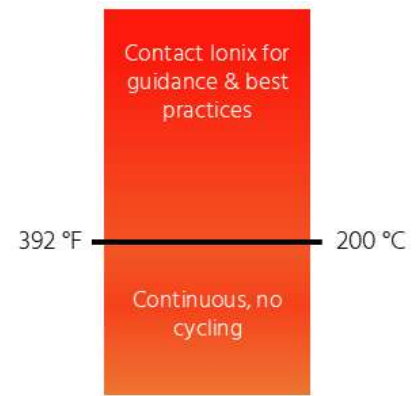
TYPICAL ULTRASONIC RESPONSE



Backwall reflection in 20 mm stainless steel

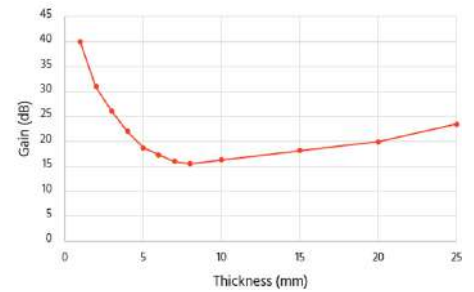


TEMPERATURE CYCLE CHART



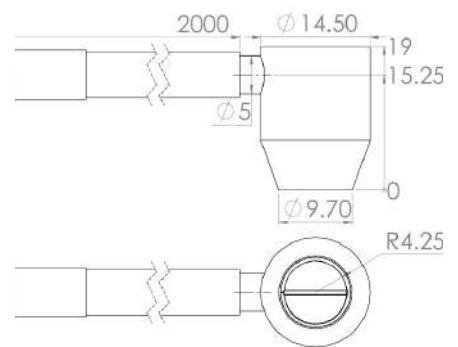
Due to the varied range of applications, this chart is provided as a guide only. Use outside of these parameters can reduce the lifetime of the transducer

DAC CURVE



CERTIFICATION

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



Dimensions shown in mm

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



To see the HS782i in action or for hints & tips scan the QR code



Want to discuss your demanding environment needs?

✉ contact@ionix.at

🐦 @ionix_at

🌐 www.ionix.at

in ionix-advanced-technologies

