HotSense™ dual element (DE) ultrasonic monitoring sensors

Reduce the cost and complexity of on-stream ultrasonic monitoring

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 monitoring, hazardous environments, ultrasonics

HOTSENSE DE

- **Low cost dual element** ultrasonic monitoring sensors for widespread distribution
- **Through coating** measurements without removal of protective coatings
- **Installation on all sizes** of pipes and vessels
- **Built on the award winning HotSense™ ultrasonic platform**
  Next generation sensors powered by the proprietary Ionix HPZ piezoceramic
- **-55 to +150 °C** [-67 to +302 °F] continuous measurement temperature range
- **Permanent or semi-permanent installation** in extreme or hazardous environments
- **Intrinsically safe certified** to Zone 0
- **Manual or automated** data collection

DEPLOYMENT

- Deploy on to live assets without shutdown or isolation
- Options for vessels and pipes NPS 52" and
- Integrated magnetic fixing for ease of inst errous 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

SOLUTION BENEFITS

- Fixed UT sensors provide increased measurement precision and collection frequency for reliable and real-time corrosion trending
- Optimise 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 standard UT flaw detectors with Measurement Hub
- Autonomous data collection and data direct to control centre with WirelessHART Caliperay

hotsensell® | Powered by ionix

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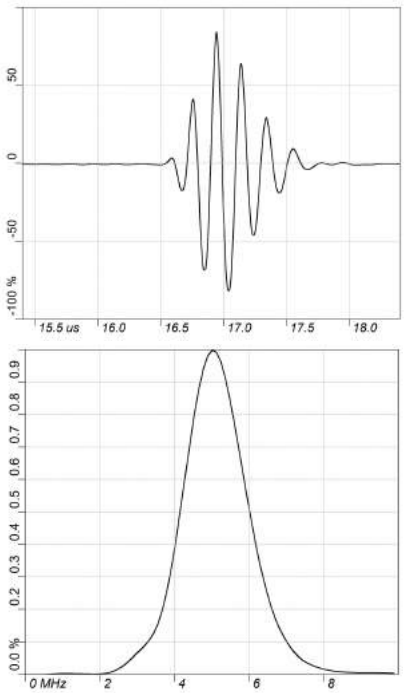
ISO 9001 Certified ExVeritas® IEC IECEx

STANDARD TRANSDUCER SPECIFICATION

PARAMETER	VALUE	UNIT
Operating Temperature	-55 to +150 / [-67 to +302]	°C / [°F]
Delay Line Material	Engineering Polymer	-
Tip diameter	11 / [0.434]	mm / [in]
Connector type	Dual UNF 10/32 Microdot	-
Cable length(s)	2 [6.5] standard, 15 [49] by request	m / [ft]
Ruggedisation	Certified to IP 66/68 Stainless steel constructi	-
Acoustic characteristics certificate of conformity to EN 12668:2 s ach unit		
Transducer centre frequency	5	MHz
Active element diameter	8 /2	mm
Wear allowance	1.5	mm
For use with Measurement Hub manual and C nated monitoring solutions Also compatible with UT flaw detectors and thickness gauges		

*Other variations available via special request
For other specification requirements please contact our sales team

TYPICAL ULTRASONIC RESPONSE

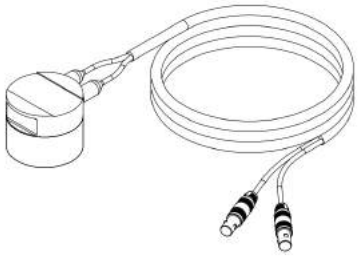


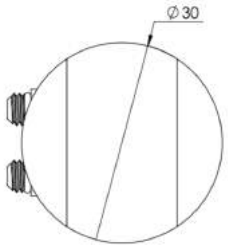
CERTIFICATION

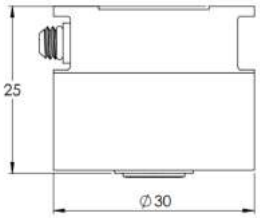
II 1 GD Ex ia IIC T* Ga / Ex ia IIIC T* Da
IP 66/68

STANDARD DEPLOYMENT SPECIFICATION

PARAMETER	VALUE	VARIABLES
Strap free deployment		
Applications	Vessels, larger pipe diameters, grids	
Fixing	Magnetic & epoxy adhesive	Optional retention lanyard
Coupling	Epoxy	
Cure time	Minimum of 1 hour at 150 °C	Cure in-service
Diameters	>NPS 3"	Ideal for vessels
Installation on coatings	Yes	
Semi-permanent deployment		
Applications		
Fixing	Magnet & universal steel strap	Optional retention lanyard
Coupling	Solid coupling pad	
Diameters	NPS 2" to 36"	
Installation on coatings	Yes	







Dimensions shown in mm

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

Want to discuss your demanding environment needs?

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