ECHO POINT®
By COSASCO®

Echo Point

Wireless, High Temperature, Corrosion/Erosion Monitoring

High Sensitivity Dual
Up to 3 times more sensitive than competing sensors

Thru-Coating
Thru-Coat technology eliminates costly coating removal

Ultra-High Temp Single
Maximum Temperature of 932°F (500°C)

Certifications

UK CA 2503 CE 2776 Ex II 1 G Ex ia IIC T4 Ga, Ta = -40°C to +70°C
CML 21ATEX2802X | CML 21UKEX2934X | IECEx CML 21.0097X

NRTL LISTED MET c us
Ex ia IIC T4 Ga | Class I, Div 1, Gp A-D T4
Class I Zone 0, AEx ia IIC T4 Ga | Class I, Div 1 Gp A-D T4
Ta = -40°C to +70°C
E114158 - Hazardous Location

Communication

Echo Point uses **WirelessHART** to communicate directly with compatible gateways to Cosasco Data Online. Cosasco Data Online supports back-end communication via Modbus TCP/IP or Modbus RTU to DCS and SCADA systems. Echo Point integrates with Cosasco Data Online to offer advanced analytics and seamlessly integrate with other Cosasco devices.

Echo Point is Cosasco's newest technology that pushes the boundaries of wireless ultrasonic thickness monitoring. Sensors are available in temporary and permanent configuration choices depending on customer needs. All configurations are rigorously certified to operate in the most hazardous and high-risk environments.

Ultrasonic transducers are powered by off-the-shelf batteries and use WirelessHART to communicate. An embedded temperature sensor with a temperature correction algorithm provides high accuracy measurements.

Non-Intrusive Transducer Choices

All transducers are designed with a minimum high temperature of 275°F (135°C) and the EP-UHT has a maximum high temperature of 932°F (500°C).

EP-TC is perfect for applications where coating removal is not an option. EP-HSD is ideal to monitor identified volumetric defects for maximum thin-wall sensitivity. EP-UHT has specialized coupling technology to monitor the hottest processes. All models mount using stainless steel band clamps. EP-HSDs are available with magnetic bases.

COSASCO®

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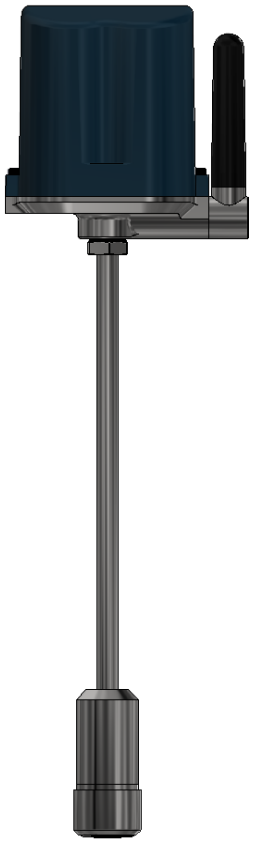
High Temperature & Ultra High Temperature Transducer Specifications

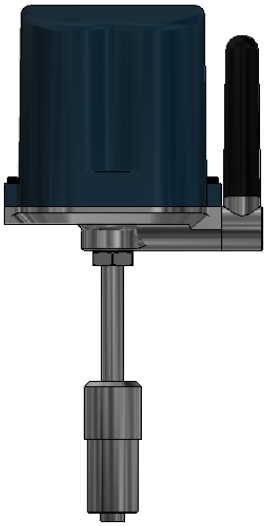
	EP-TC (Thru-Coating)	EP-HSD (High Sensitivity Dual)	EP-UHT (Ultra-High Temp)
Probe surface temperature	-20 to 275ºF (-20 to 135ºC)	-20 to 275ºF (-20 to 135ºC)	-40 to 932ºF (-40 to 500ºC)
Transmitter temperature	-40 to 158ºF (-40 to 70 ºC)	-40 to 158ºF (-40 to 70 ºC)	-40 to 158ºF (-40 to 70 ºC)
Measurement range	0.125” to 1.00” (3-25mm)	0.040” to 6” (1-150mm)	0.125” to 1.00” (3-25mm)
Measurement resolution	0.001” (0.025mm)	0.001” (0.025mm)	0.001” (0.025mm)
Thru-Coating	Yes*	No	No
Min. pipe diameter	2” NPS	2” NPS	2” NPS
Resolution	0.001” (0.025mm)	0.001” (0.025mm)	0.001” (0.025mm)
Element(s)	Dual	Dual	Single (delay-line)
Element Diameter	0.375”(9.53mm)	0.375”(9.53mm)	0.375”(9.53mm)
Element Frequency	5 MHz	5 MHz	7 MHz

Entire Device Specifications

Size (height x width x depth)	**EP-UHT** 14.90 x 4.41 x 2.09 in (379 x 112 x 53 mm)	**EP-HSD** 8.80 X 4.41 X 2.09 in (22 x 112 x 53 mm)
Weight	~2.25 lbs. (1.02 kg)	
Battery life (typical) †	5 years @ 2 readings/day	
IP Rating	IP 67	
Mounting	Band clamp, magnetic base, or welded studs	
Data	Temperature Corrected Thickness, Raw Thickness, Surface Temperature, RF waveform, time/date stamp	
Data access	Cosasco Data Online, DCS or SCADA	
Protocols	WirelessHART (current) / ISA100 (coming soon)	
Measurement Frequency	Default is every 12 hours (user configurable to every hour)	
Node count	Up to 200 Echo Point units per gateway	
Certified As	02-030010 (UHT), 02-030020 (Dual), 02-030030 (Thru-Coating Single)	



Front View (EP-UHT)



Front View (EP-HSD)

* External FBE and homogenous PU/PE/PP coatings

† Typical Values. Results may vary based on range, RF noise, and temperature