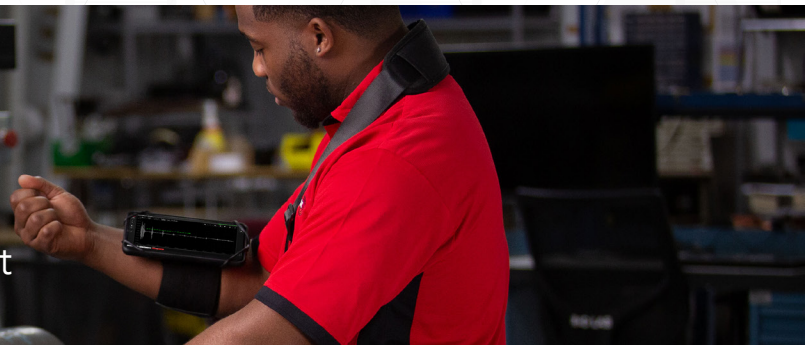
Innerspec

HIGH-PERFORMANCE NDT SOLUTIONS

CODA

Portable, high-power, ultrasonic instrument



Equipment Highlights

- Patented pulser technology to pulse both EMAT and piezoelectric sensors
- Non-contact, no-couplant EMAT sensors provide measurements and flaw detection at extreme temperatures from -30° to 650°C
- Works with piezoelectric sensors from any manufacturer and Innerspec's proprietary Dry-Coupled piezoelectric sensors
- Custom EMAT applications for thickness measurement, corrosion mapping, stress measurement (train wheels, rails, plates), bolt-load measurement and 0° flaw detection
- Conventional UT applications for thickness measurement, and shear wave inspection
- NDT-WEB software permits direct control from any connected device using built-in WiFi
- NDT-LINK connectivity for Innerspec's cloud services

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CODA is the first and only compact high-power UT flaw detector capable of working with both EMAT and piezoelectric sensors using Innerspec's patented pulser technology. Available EMAT applications include thickness gauging, corrosion mapping, bolt-load measurement, stress measurement, and flaw detection with normal beam. When fitted with piezoelectric transducers, CODA works as a conventional UT flaw detector and includes all standard ultrasonic applications including normal beam, shear wave and surface waves.

CODA+ incorporates a one axis encoder input to be able to plot strip charts and C-scans using a manual or an automated scanner. CODA SM permits pulsing a custom two-channel EMAT sensor for stress measurement. CODA is designed to work with EMAT sensors from Innerspec and piezoelectric sensors from any manufacturer.

CODA – Technical Specifications		
Ultrasonic Pulsers	1 - EMAT	1 - PIEZO
Bandwidth	1500 kHz to 10 MHz	100 kHz to 10 MHz
Pulse Repetition Rate	Up to 400 Hz	Up to 400 Hz
RF Pulser	1-3 Cycles (Toneburst) 16kW power output 400Vpp @ 40Amp pk 0.6% maximum duty	Half Cycle Square Wave 600 W Power Output 100 V - 400 V @ 5Amp pk 0.6% Maximum Duty
Receivers	20 dB to 90 dB Gain	0 dB to 48 dB Gain
Pulse / Receive Modes	Pulse-Echo/Pitch-Catch	
Dual Channel Multiplexer	Yes (CODA SM)	No
Analog /Digital Converters	14-bit, 100 MSPS	
Rectification	Full-wave +/- half-wave, Envelope and RF mode	
Filtering	Programmable digital filters	
Evaluation Gates	3 gates per channel Amplitude, time and frequency	
Encoder Interface	A/B Quadrature or clock/direction (CODA+, CODA SM)	
PC Communication	Wi-Fi 2x802.11ac/ax dual band USB 3.0, Ethernet	
Software	ITOP with NDT-WEB	
Internal Storage Capacity	32 GB SSD	
Memory	8 GB RAM	
Probe Connector	LEMO, BNC, Thermocouple	
Operating Temperature	32°F to 105°F (0°C to 40°C)	
Power Input	USB Type-C adapter input: 100-240 VAC, 50-60 Hz	
Rechargeable Battery	Li-Ion 14.4V, 49Wh, <10A@ 6.8Ah; up to 10 hours battery life	
Other I/O	HDMI, Thermocouple	
Temperature Compensation	Automatic, thermocouple input	
User Interface	Portable touchscreen 6.9" (default) Web browser accessible through ITOP operating platform on any operating system and device	
Dimensions	8.3”(W) x 6.9”(D) x 2.3”(H) 210 mm(W) x 176 mm(D) x 67 mm(H)	
Weight	2.6lb/1,2Kg (2.1lb/950g without battery)	

*AVAILABLE ONLY WITH CODA+ AND CODA STRESS