The Best of Both Worlds...

**The DFX-7 Series**

**Flaw Detector & Thickness Gauge**

**Flaw Detector:**
- Sizing Toolkits: DAC, AWS, TCG, DGS.
- Exceptional visibility in sunlight (AMOLED) color VGA display (320x240 pixels).
- P.R.F. - 8 to 333 Hz, adjustable.
- Screen Refresh Rate: Adjustable 60 & 120 Hz.
- Detection: Z-Cross, Flank & Peak.

**Thickness Gauge:**
- Measurement: Variety of modes to address a number of applications.
- Large data storage with multiple formats: Alpha numeric grid and sequential w/auto identifier.
- Up to 12 hours of battery life using 3 AA cells.
- Windows PC interface software included.
DFX-7 SERIES SPECIFICATIONS

General
Size: 2.5W x 6.5H x 1.24D in (63.5 x 165 x 1.5mm).
Weight: 14 ounces (397kgs), with batteries.
Case: Extruded aluminum body with nickel plated aluminum end caps (gasket sealed).
Display: 1/4 VGA AMOLED color display (320 x 240 pixels). Viewable area 1.7 x 2.27 in (43.2 x 57.6 mm). 16 color palette, multiple color options, and variable brightness.
Screen Refresh Rate: Selectable 60 or 120Hz.
Display Views: Flaw Detector: Full wave, +/- Rectified, or RF. Thickness Gauge: Digits, +/- Rectified, RF, or B-Scan.
Timing: Precision 25MHz TCXO with single shot 100 MHz 8 bit ultra low power digitizer.
Measurement Gates: Two independent gates (Flaw), and three gates (thickness). Start & width adjustable over full range. Amplitude 5-95%, 1% steps. Positive or negative triggering for each gate with audible and visual alarms.
Operating Temperature: 14 to 140F (-10C to 60C).
Environmental: Meets IP65 requirements.
Calibration
Automatic Calibration: Longitudinal (straight), or Shear (angle).
Probe Types: Single Contact, Dual, Delay, and Angle.
Units: English (in), Metric (mm), or Time (µs).
Velocity: 0.0100 to .6300 in/µs (256–16,000 m/s).
Test Range: 0 to 0.280in (7.11mm) minimum, to 1200in (30,480mm) maximum at steel velocity. Continuously variable.
Zero Offset (Probe Zero): 0–999,999 µs.
Material Velocity Table: Contains longitudinal and shear velocities for a variety of material types.
Pulser
Pulser Type: Two adjustable square wave pulser and receivers.
P.R.F.: 8 to 333Hz in selectable steps (8, 16, 32, 66, 125, 250, 333Hz).
Pulser Voltage: 200 volt peak amplitude, rise/fall time < 10ns into 500ohm.
Pulse Width: 40 to 400 ns. Selectable step options 40, 80 & 400 ns (labeled spike, thin & wide).
Receiver
Gain: 0 to 110dB with 0.2dB resolution. Manual and AGC control.
Damping: 50, 75, 100, 300, 600, & 1500 ohms.
Frequency Bands: DFX-7 & 7+: Broadband 1.8 - 19 MHz (-3dB). DFX-7+: Three narrow bands at 2MHz, 5MHz, 10MHz.
Horizontal Linearity: +/- 0.4% FSW.
Vertical Linearity: +/- 1% FSH.
Amplifier Linearity: +/- 1 dB.
Amplitude Measurement: 0 to 100% FSH, with 1% resolution.
Delay: 0 - 999in (25,375mm) at steel velocity.
Flaw Detector Features
TRIG: Trigonometric display of beam path, depth, surface distance, and curved surface correction. Used with angle beam transducers.
DAC: Up to 8 points may be entered and used to digitally draw a DAC curve. Reference -2, -6, -10, (-6/-12), (-6/-14), (-2/-6/-10) dB. Amplitude displayed in %DAC, dB, or %FSH.
AWS: Automatic defect sizing in accordance with AWS D1.1 structural welding code.
AVG/DGS: Automatic defect sizing using probe data. Stores up to 64 custom setups.
TCG: Time corrected gain. 50 dB dynamic range, 20 dB per microsecond, up to 8 points for curve definition.
Measurement Mode: Pulse-Echo (P-E) measures from 0.025 in to 100 ft. (0.63mm to 3048 cm).
Auto-Cal: Provides automatic calibration with two reference points.
Detection Modes: Zero Crossing, Flank and Peak.
Display Freeze: Hold current waveform on screen.
Peak Memory: Captures peak signal amplitude.
Thickness Gauge Features
Measurement Modes (Dual Element):
Pulse-Echo Mode (P-E): (Flaw & Coating Detection) measures from 0.025 in to 100 ft. (0.63mm to 3048 cm).
Pulse-Echo Coating Mode (PECT): (Material, Coating, Pit & Flaw Detection): Material: 0.025 in to 100 ft. (0.63mm to 3048 cm). Coating: 0.00 to 100 inches (0.01 to 254 millimeters).
Damping: 50, 75, 100, 300, 600, & 1500 ohms.
Vertical Linearity: +/- 1% FSH.
Amplifier Linearity: +/- 1 dB.
Amplitude Measurement: 0 to 100% FSH, with 1% resolution.
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MADE IN THE USA

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