



Delivering an Inspection Advantage

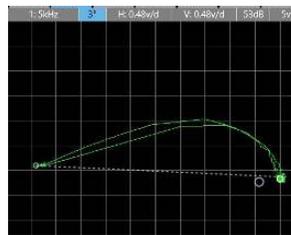


Category	Feature	MIZ-21C	Nortec-600	MIZ-21C Advantages
Instrument Form Factor	Size	267 x 122 x 38 mm (10.5 x 4.8 x 1.5 in)	236 x 167 x 70 mm (9.3 x 6.57 x 2.76 in)	• <b>Smaller: Makes one handed control possible</b>
	Weight	1.2 kg (2.6 lb)	1.7 kg (3.75 lb)	• <b>Lighter: Reduces user fatigue</b>
	Ergonomics	Single-hand operation with ambidextrous controls	Need two hands to operate, has limited ambidextrous controls	• <b>Easier to perform inspections in difficult to reach areas</b>
	Touchscreen	✓	✗	• <b>Intuitive: Easier and faster to use</b>
	Eddy Current Array	✓	✗	• <b>Wider coverage for faster inspections</b> • <b>Provides 3D view of data</b> • <b>Better assists flaw morphology</b>
Eddy Current Technology	Gain	10 dB to 123 dB	0 dB to 100 dB	• <b>Greater ability to use digital gain which increases resolution while maintaining signal to noise and preventing probe saturation</b>
	Drive voltage	Up to 12 Vpp (19 Vpp for ECA) in 0.1 volt increments	3 settings: Low(2V)/Med(5V)/High(8V)	• <b>Higher voltage for increased probe sensitivity and higher signal to noise ratio</b> • <b>Ability to set any voltage for fine tuning of a probe</b>
	Signal to noise (1 Ω Impedance change signal)	40:1	5:1	• <b>Higher data resolution</b> • <b>Increase probability of detection</b>
	Independent filter settings/frequency	✓	✗	• <b>Configure each channel separately to find exactly what you are looking for</b>
C-Scan/Waterfall	High resolution, color C-scans	✓	✗	• <b>Easily identify different layers for bolt hole inspections</b> • <b>Easily see flaws</b> • <b>Increase probability of detection</b>
Signal Calibration	Buffer to review and calibrate data	✓	Freeze function to freeze screen image. Gain and angle adjustments will alter the image to estimate the effect.	• <b>Very accurate signal calibration</b> • <b>Adjust filters and evaluate the effect on the signal</b> • <b>Adjust calibration parameters without the need to continuously scan data</b>
Storage	Ability to store data files	60 s or 10 meters	Only whatever is on the screen at the current time	• <b>Save data for analysis or for archival purposes</b> • <b>Storage buffer enables inspection completion by a single technician</b>

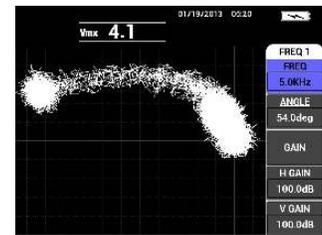
### Signal to Noise Ratio Comparison

For a given change in impedance, the MIZ-21C has a significantly higher signal to noise ratio. This is due in part to the fact that the MIZ-21C does not require as much gain as the Nortec 600. The example to the right is a 1 Ω signal (lift-off) across 10 divisions. The Nortec 600 uses 100 dB of gain and the MIZ-21C uses just 53 dB of gain to produce an equivalent signal. The signal to noise ratio is 5:1 for the Nortec 600 and 40:1 for the MIZ-21C.

1 Ω signal across 10 divisions



**MIZ-21C**  
 53 dB Gain  
 40:1 Signal to Noise Ratio



**Nortec 600**  
 100 dB Gain  
 5:1 Signal to Noise Ratio