Date: September 12, 2019

Re: MIZ-21C Qualified for Boeing Procedures

Dear Valued Customer,

Please be informed that the MIZ-21C is a suitable direct replacement for specified past Zetec eddy current instruments. The MIZ-21C meets the detection capabilities of these instruments. As such, the MIZ-21C is qualified to be used in Boeing Eddy Current Nondestructive Test Procedures where it is stated any one of the following instruments were used in the development of the procedure: DC-1, DC-2, MIZ-6, MIZ-10, MIZ-10A, MIZ-10B, MIZ-17, MIZ-20, MIZ-20A, MIZ-21, MIZ-21A, MIZ-21B, and MIZ-22.

The essential variables used to describe the MIZ-21C eddy current instrument as defined in industry codes such as ISO and ASME are defined as technique and equipment variables. The essential variables provided below are used to demonstrate the MIZ-21C can be used for applications having configuration parameters which are in the range of the MIZ-21C. Samples of practical applications have been performed demonstrating the MIZ-21C is a suitable direct replacement for the MIZ-21B and other like eddy current instruments commonly in use.

Technique Variables

Variable	**MIZ-21C Range or Setting(s)**
Examination frequencies	5 Hz to 10 MHz
Gain	10 dB to 123 dB (43 dB input + 79 dB digital)
Drive voltage	Up to 12 Vpp (19 Vpp for ECA)
Coil excitation modes	Bridge (Differential and Absolute) Reflection (Differential and Absolute)
Signal phase	0 to 359 degrees
Signal filtering	High pass, Low pass, Band pass, Median, Cross Correlation (High pass 2), Spike
Sample rate (as a function of data density)	Up to 25,000 samples/sec

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Equipment Variables

Industry codes have defined the equipment variables for an eddy current instrument. Each of the following variables have been tested on the MIZ-21C to validate acceptable instrument performance.

Category	MIZ-21C Variables
Signal Generation	Total harmonic distortion Output Impedance
Amplification, Demodulation, and Filtering	Input impedance Amplifier linearity and stability Frequency response (Bandwidth)
Analog to Digital Conversion	A/D resolution A/D dynamic range Effective A/D digitizing rate
Calibration	Drive frequency check Horizontal to Vertical deviation Orthogonal (Quadrature) test

For more information, pricing, and delivery, please contact Zetec Customer Service at CustomerService@zetec.com.

Best Regards,
Zetec, Inc.

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Customer Service Manager

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