

New Technology

SMART-5097

EDDYSUN

Multi-Frequency / Array EC Tester

SMART-5097 intelligence multi-frequency / array eddy-current (EC) flaw detector exclusively has most advanced technology like DSP, FPGA digital analysis technique, real-time multi-frequency EC detection technique and microprocessor technique, which enable real-time detection of flaws in metal material, identification of alloy and heat treatment and change of thickness. Default parameter and expert programming can be pre-set. It is easy to operate with the help of menu, clues and function keys. **SMART-5097** is the upgraded version of **SMART-97** (which has passed the verification of China Air Force Department). Its compact configuration and rechargeable built-in lithium battery allow easy field work.

SMART-5097 can be used for normal flaw evaluation (flaw detection of surface of vane, axle, undercarriage and other parts of aircraft); checking crack on internal surface of socket of rivet or bolt no matter fastener is fit in or not; crack on metal accessories or weld of ferromagnetic material; measurement of change of thickness of thin layer (abrasion, corrosion and so on); thickness measurement of in-conductive coating on conductive material; testing for copper, titanium, aluminium, zirconium and other non-ferromagnetic heat exchanger tubes (for cracks, thickness measurement, corrosion and so on); checking corrosion between layers of composite material, such as multi-layer structure of aircraft, aluminium skin, wing to fuselage connection and so forth; monitoring change of heat treatment and material sorting. Anti-corrosive coating has been added for weld inspection. Other newly added function are depth measurement of crack, and array EC flaw detection, which is compatible for array probe & the array probe of flexibility, which are suitable for inspection of metal component with irregular shape and great curvature, such as axle, crankshaft, gear, undercarriage. This instrument has wide application in aviation, space, electric power, petrochemical industries.

Features And Specifications

- 2 Independently-selectable frequencies,
- 8 Channels ECT
- Frequency range : 64Hz~5MHz
- Fast high-resolution / digital electronic balance
- Adjustable gain from 0 to 90dB in 0.5dB step
- Digital filter: Highpass: 0~500Hz,
Lowpass: 10Hz~10KHz
- Automatic/manual amplitude and phase measure;
- Unique non-equal phase/amplitude alarming;
- Exciting voltage of probe can be adjusted by keyboard;
- 4 Impedance plane and stripe curve displays;
- Array ECT capability and C-scan display;
- Screen:640×480 high-resolution TFT LCD screen
- Range of operating temperature: -20°C~+60°C
- Socket: USB, LAN port, encoder socket
- 8 Channel MMT (Magnetic Memory Testing)
- 8 Channel MLT(Magnetic Leakage Testing)
- Power supply: lithium battery, working length ≥9 h
Or AC 220V 50Hz
- Weight: 2.5 kg
- Size: 260 x 180 x 120 (mm)



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