



Phasec 2200

Advanced Eddy Current Instrument

- Class Leading Package**
 Small, light (less than 3kg), tough poly-carbonate enclosure, reliable in the harshest environment. Fully PC compatible.
- Comprehensive Eddy Current Features**
 Dual frequency with mixing, Range of rotating probe drives, Conductivity and Coating, Thickness Measurement - no compromises
- Intelligent Signal Processing**
 User Selectable 'Auto' Functions - Including Automix, Auto Lift-off, Auto Balance and Auto Probe Matching
- Widest Range of Applications**
 Corrosion detection, faster hole inspection, surface and sub-surface crack detection
- Enhanced Products for Specific Inspections**
 Connects to a wide range of systems, for in-situ faster inspection, weld inspection and C-scan corrosion detection

Lighten Your Load

HOCKING

Class Leading Package

The innovative design of the Phasec 2200 puts a high technology Eddy Current instrument inside an ultralight, splashproof case that has the ruggedness to perform reliably in the harshest environments.

It has the benefit of a large Electroluminescent display to reduce eyestrain, comprehensive battery management, extensive context-sensitive help screens and advanced user functions.

The Phasec 2200 includes all the functions needed to enable you to achieve accurate, reliable and repeatable test results. It minimises operator fatigue by being both the lightest available unit of its kind, and by automating many repetitive operations.

Comprehensive Eddy Current Features

The dual channel, dual frequency, Phasec 2200 offers a full range of capabilities for the NDT operator:

- Wide choice of alarms - Box Gate, Circular/Sector Gate, flashing LED's, audible alarm and open collector output
- Supports the range of Hocking rotating drives for dynamic inspection (see Accessories and Enhancements)
- Conductivity of non-ferrous metals plus coating thickness measurements in conjunction with a conductivity probe
- Comprehensive reporting features: Storage of data and traces within the instrument, and export to a PC. Choice of full alphanumeric names for these files

Intelligent Signal Processing

Digital techniques have vastly improved data manipulation, flaw discrimination, and automation of tasks, allowing more rapid and accurate inspection.

- Inspection results can be recorded and replayed. During playback parameters can be changed to find the optimum inspection setup
- Digital filters allow high quality signal processing
- Setting lift off and optimising balance loads can be performed automatically
- Mixing out unwanted signals, such as support plates during dual frequency inspection, is performed in seconds by the instrument - automatically
- Full connectivity to available PC software packages for control and recording

Aerospace Applications

Corrosion

The low frequency performance of the Phasec 2200 in both single and dual frequency mode makes it ideal for sub-surface inspection in thick multi-layer structures such as aircraft skins. For positional scanning the Phasec 2200 can use the AndScan scanning system. (see Accessories and Enhancements).

Fastener Hole Inspection

The inspection of fastener holes in aircraft and other structures benefits greatly from the Phasec's use of versatile filters, advanced display software and low noise. The result is an excellent signal to noise ratio allowing very small flaws to be detected. A complementary range of probe drives is available. These range from the ultralight MiniDrive for tight access areas, to the fully indexing incrementing drive, providing for a wide choice of dynamic inspections.

FastScan

The FastScan system has been designed specifically for detection of surface and sub-surface cracking under installed fasteners. Using dual frequency techniques the operator can get an indication of depth of about 10mm. This system can inspect under ferrous or non-ferrous fasteners and can identify top-surface cracking under the fastener head.

Conductivity

With the appropriate probe, the Phasec 2200 measures the conductivity of non-ferrous metals over the full range of 1% to 110% IACS or 0.4-64 MS/m. A readout of coating thickness to 1.25mm is also displayed.

Other Applications

Surface Cracking

The Phasec 2200 gives high sensitivity surface inspection using all standard absolute and differential probes. The built in balance loads and wide probe matching ensure compatibility with other manufacturers application - specific probes.

Weld Inspection

In conjunction with the Hocking WeldScan range of probes, the Phasec 2200 offers an advanced system for checking the integrity of welds on steel structures, such as bridges, ships, oil rigs and steel framed buildings. It is designed to be insensitive to lift-off, and can be used on structures with anti-corrosion coatings.

Tube Inspection (Non ferrous)

With ID probes the Phasec 2200 can perform a range of tube inspection tasks.



Specifications

Dimensions

249 x 133 x 146

Weight

2.7 kg

Operating Frequency

Single frequency mode:
60Hz - 6MHz
Dual frequency mode:
100Hz - 2MHz
F1/F2 ratio 10:1 - 1:10 (multiplexed)

Channels

Single & Dual Frequency probes
Rotating probes, 1 channel

Gain

Overall adjustment 0-90dB

Filters

Low Pass and High Pass

Alarms

Box Gate, Circular/Sector Gate, Flashing LED's, internal sounder, and open collector output

Internal data storage

Capacity for 50 traces and 100 settings.
14 character file descriptions

Conductivity measurement

Range 1%-110% IACS, 0.4-64MS/m
Requires Probe Ref: 47P001

Coating Thickness Measurement

Needs probe as above

Inputs/Outputs

Serial interface for PC communication or serial printer.
Headphone output.
2 selectable Analogue outputs for chart recorder or similar

Display

Electroluminescent, 152mm diagonal

Power

External power supply/charger:
120/240 VAC 50/60Hz

Batteries

6x 'D' size Alkaline or NiCad cells

Environment

Operating temp. 0°C to 40°C
Storage temp. -20°C to +55°C

Take the Weight of inspection off your shoulders

With the advanced NDT capabilities of the Phasec 2200 you can concentrate fully on the tests themselves. The light compact package reduces operator fatigue and allows unhindered inspections all day long. This combination of power, features and portability will lighten your inspection load.



Accessories and Enhancements

Probes

Wide balance range allows effective connection to probes from other manufacturers. The Phases 2200 can operate with absolute, differential and reflection probes over a wide frequency range.

Rotating Probe Drives

- MiniDrive** Ultralight unit (140g) with selectable speeds between 600 to 3000rpm, for use in restricted spaces.
- Standard** Selectable speeds between 600 to 3000rpm, frequency range 200kHz to 2.5MHz same as MiniDrive), more powerful for larger probes.
- Incrementing** A fully indexed drive that has variable speeds and a user-selectable helix pitch.

Software

PC-based control via RS-232, with options for a fully-featured reporting package.

AndScan

The AndScan system gives positional data and display software for C-scan inspection. With the Phasec 2200 it is ideal for corrosion detection in Multi-layer structures such as aircraft skins. AndScan is a Trademark of the Defence Research Agency.

AC Power Supply/Charger	(33A110 and cable included)
Carrying Bag	(33A140)
Conductivity Probe/Lead/Standard	(47P001/33A135/33A136)
Standard Rotating Probe Drive	(33A106 + cable 33A103)
Miniature Rotating Probe Drive	(33A100 + cable 33A103)
Incrementing/Rotating Drive	(33A107 + cable 33A103)
Serial Printer Cable	(33A145)
Communication Software/Cable	(33A 147/33A146)

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