

# EddyView Pro



Since 1985, employee-owned UniWest has engineered and manufactured eddy current (EC) testing solutions and instruments with unparalleled flaw detection capabilities for safety-critical and high-performance components in industries around the globe.

The EddyView line of portable EC instruments addresses the practical needs, as well as the financial realities, of the NDT industry. EddyView instruments serve to ensure the physical integrity and performance demands of critical components in industries ranging from service and maintenance providers, to original equipment manufacturers, to aerospace, energy and infrastructure development enterprises.

There are three levels of EddyView (Prime, Pro and Premium). Every model in the EddyView line is built on the same basic signal detection hardware platform and provides the same outstanding signal to- noise ratio.

## Theory

When a coil of conductive wire is excited with an alternating electrical current an alternating magnetic field is produced. The magnetic field oscillates at the same frequency as the excitation source. When placed near a conductive material, currents opposed to the ones in the coil are induced in the material. These are referred to as eddy currents.

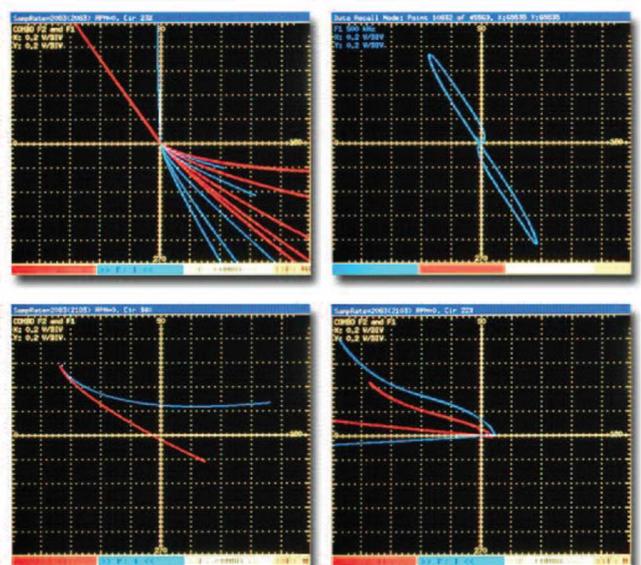
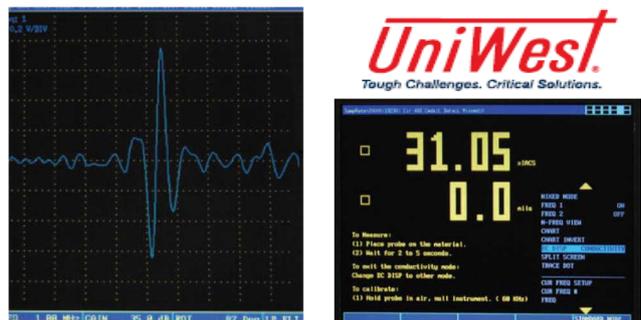
In the case of variations in the electrical conductivity and/or magnetic permeability causes a change in eddy current. Additionally, the presence of defects will precipitate a change in phase and amplitude that can be detected as a measurable change in the impedance. Eddy Current testing is generally used on conductive materials to detect surface defects.

## System

The EddyView Pro is a dual-frequency instrument designed with split screen capability for high speed bolt hole scanning. It provides conductivity and non-metallic thickness measurement, and the ability to interface with peripheral devices and automated systems.

Based on the same highly sensitive inspection technology and rugged hardware platform of the UniWest line of eddy current instruments, the EddyView Pro allows for both standard eddy current inspection and complex inspections. The Pro provides the same outstanding signal-to-noise ratio that users have come to expect from UniWest EC Products.

The EddyView Pro features include capability for automated production testing. Ethernet, RS-232, alarm outputs, and high rates of data acquisition adds to the flexibility of the instruments system integration capability. The EddyView Pro is the perfect fit for use in the field, the laboratory, or in production.



# EddyView Pro

## HARDWARE CONTROL FEATURES

- Continuously variable control knob for selecting and changing instrument settings
- Scrolling menu
- Programmable push button function keys
- Display, Erase, Null, and Enter keys

## DISPLAY

- 6.5" Diagonal, colour flat-panel LCD
- X/Y Impedance plane display
- O-Scope (sweep)
- Split screen
- Selectable display mode including strip chart, and impedance plane
- Sensitivity scaling of 0.01, 0.02, 0.05, .1, .2, .5, 1.0, 2.0, 5.0 Volts per division
- O-Scope sweep speeds from 1msec/div to 10 sec/div
- Auto clear of 0 to 10 sec, in 1-sec intervals
- Variable persistence of 0 to 10 sec
- Trace dot to give precise location of null point
- – Circle, Diamond, Square
- Null point can be adjusted for operator convenience
- Rotation (phase) 0.0 – 359.9 degrees in 0.1 degree increments

## PROBE DRIVE

- Range from 20 Hz to 15 MHz
- Frequency adjustable to 3 digits of precision
- Standard probe drive adjust of LOW, MED, HIGH
- Continuous probe drive adjust of 0 to 100 percent
- 7.0 Vpp maximum

## NUMBER OF FREQUENCIES VS SAMPLE RATE

- 1 frequency enabled at up to 25 kHz sample rate
- 2 frequency enabled at up to 6 kHz sample rate
- GAIN
- 0 to 114.0 dB
- Adjustable in 0.1 dB increments
- X/Y spread increases gain in X or Y axis up to 42 dB (Total maximum gain in any one axis = 114.0 dB)

## FILTERS

- Low and High pass selectable from 0 to 10 kHz
- Adjustable to 3 digits of precision
- PROBE TYPES
- Absolute, differential, reflection, and differential reflection
- DOCUMENTATION/PRINTERS
- Supports Hewlett Packard printers
- Printouts include selected menus and headers
- Full PDF manual and Ethernet protocol documentation

## CONDUCTIVITY

**Conductivity range:** 3.5% IACS ~ 100% IACS ± 1% IACS

60kHz probe is good down to 3% IACS

480kHz probe is good down to 1% IACS

**Lift-off range:** 0.0 mil ~ 15 mils ± 1 mil

## POWER

- Lithium ion rechargeable battery pack, 10.8 Volts, 5400 mAh
- Universal power supply and power cable for operation and battery recharge
- Battery level indicated by LEDs on battery

## DATA STORAGE

- Programmable test setups - store up 1,000 test setups
- Data storage on Secure Digital Card – Can store up to 250 four-mega byte data files on a 1 Gig card. Standard fat 32 formatted card works
- in instruments running application software version 1.0 or later
- Data storage on USB Drive – Can store files on most USD drives.
- USB Drives work in instruments running application software version 1.0 or later
- Report storage – BMP & text or Report (Use with report software\*)

## GATE/ALARM

- **Type:** Rectangular, elliptical, high- and low-bar dual and single alarms
- **Outputs:** TTL, open collector, audio, headphone

## INPUT/OUTPUT PORTS

- RS-232 serial port for remote control
- Ethernet for remote control and data transfer
- Analog outputs of +/- 10 Volts
- Probe connection via an 8 pin Burndy
- Scanner connection via 19 pin Lemo
- RGB output for external monitor
- Clear/Null input lines
- Alarm out and alarm audio
- USB port for keyboard and data out
- SD card slot

## GENERAL

- Case: Uni-frame design over-moulded grips; drip- and dust-proof
- dimensions: 288 × 188 × 75mm
- weight: 2.5kg with battery; 2kg without battery

## OPERATIONAL FEATURES

- Video LCD with external RGB output
- Eddy current impedance plane, with background and signal (trace) colour selectable
- Two-frequency mixing capability
- Data recording of all frequencies (length of recording dependent on sample rate and number of frequencies)
- Zoom feature on recalled data
- Data storage to memory card will support up to 1 GB card
- Ethernet for instrument control and data transfer
- 16-bit resolution digital data
- Remote smart battery charger holds 2 batteries, recharging in sequence
- JF-15 High-speed scanner for hand held scanning of bolt holes
- ECS-1 High-speed low profile scanner for hand held scanning of bolt holes
- Rugged storage and shipping container
- Standard and special application probes and delivery mechanisms
- Report Application Software for quick and accurate documentation

## About PCTE

PCTE have over 30 years' experience in the measurement and testing of construction materials. PCTE can provide more than just the equipment, they can provide expert training. PCTE have a service centre in Sydney in which they can provide calibration, repairs and warranty repairs.