



## EDDYCON CL – Eddy Current Flaw Detector

The **EDDYCON CL** portable eddy current flaw detector is a flagships in our eddy current instrument family. They combine the best features of earlier predecessors, being furnished with 7.2" (Eddycon CL) display and functional buttons for immediate access to any menu of the instrument, which would meet requirements of the most demanding user.

EDDYCON CL eddy current flaw detector is intended for:

- detection of surface cracks in various parts;
- finding of cracks in holes and multi-layered structures with the help of rotary scanners;
- recognition of sub-surface flaws in non-magnetic conductive materials;
- evaluation of non-magnetic material conductivity, and paint coating thickness.

These devices allow to perform full eddy current testing of aircraft parts in accordance with the requirements of the regulations **AIRBUS A318 / A319 / A320 / A321 NONDESTRUCTIVE TESTING MANUAL NTM, BOEING 737 NON-DESTRUCTIVE TEST MANUAL**.

Eddycon C&CL benefits:

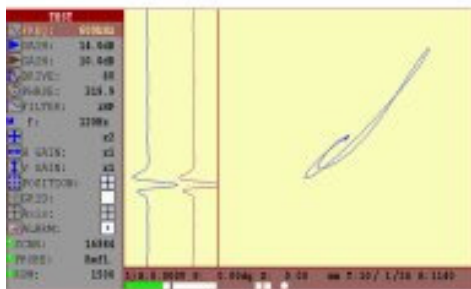
- easy-to-operate due to user-friendly intuitive interface;
- light and sound alarms;
- strict compliance with EN-15548;
- tune-out from the influence of working gap and inhomogeneity of electromagnetic properties;
- saving of more than 1000 settings and test results to the flaw detector memory;
- data communication to PC via USB flash drive or Ethernet;
- specialty software for viewing test results and printing out test reports;
- application-dependent software for real-time data displaying on a PC;
- software upgrade using USB flash drives;
- evaluation of flaw depth;
- review of saved defectograms on the display of eddy current flaw detector;
- possibility to connect a temperature sensor and remote 'Balance' button (option);
- quick-release Li-Ion battery for continuous 8-hour operation;
- lightweight – 1.65 kg (Eddycon CL).



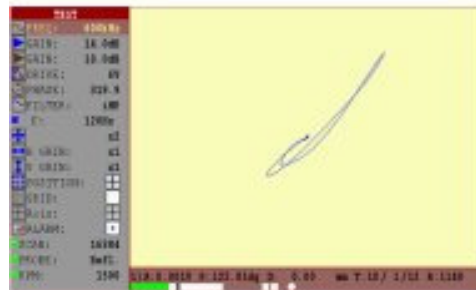
## Portability and lightweight

Due to small size of the eddy current equipment, an operator can set it up with one hand only. The device is furnished with a side strap, which allows for a firm hold of the flaw detector either in right or left hand, while its narrow width helps easily reach any button on the keypad. Thanks to its lightweight, an operator can perform eddy current testing for a long period of time, not being tired.

## Different modes of full-screen presentation



a) Menu+XY+A(t)



b) Menu+XY



c) Menu+A(t)



d) XY+A(t)



e) XY



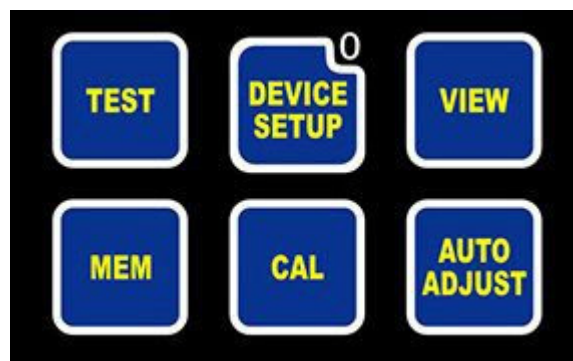
f) A(t)



## Navigation

Elaborated keypad design gives a quick access to any menu of the flaw detector by pressing a single key only!

- **TESTING menu** - main operating mode of the flaw detector;
- **MEMORY menu** - is used to save/download the settings and test results;
- **SETTINGS menu** - basic settings of the flaw detector;
- **VIEW menu** - allows viewing test results saved to the flaw detector's memory;
- **CALIBRATION menu** - serves to create calibration curves for more precise evaluation of flaw depth.



MODEL		
	EDDYCON CL (International version)	EDDYCON CL (English version)
Probe connector	Lemo 12-way (Reflection, Bridge); Lemo 00 (single coil)	Lemo 16-way (Reflection, Bridge); Lemo 00 (single coil)
Encoder connector	Lemo 08-way	
Compatible with the following rotary scanners	SVR-02, SVR-04, MiniDrive (GE)	SVR-03, SVR-05, MiniMite (OLYMPUS)
Evaluation of flaw depth		✓
Operation with linear encoder		✓
Dual-frequency & mix-modes		✓
Measurement of electrical conductivity and coating thickness		✓
Quick-release battery		✓



## Specification

### Housing

Overall dimensions

**Eddycon CL** 256 mm × 156 mm × 80 mm (10" × 6.1" × 3.1")

Weight

**Eddycon CL** up to 1.65 kg

Applicable standards

CE, EN-15548

Supply mains

100 V to 240 V, 50 Hz - 60 Hz

Inputs & outputs

2.0 USB-port (hub), Ethernet (Lemo 4-way), headphones (Lemo 4-way)

Keypad

English, international (icons)

### Operation conditions

Operation temperature

-20 to +50

Storage temperature

-20 to +50

IP rating

**Eddycon CL** IP 66

### Battery

Type

Li-Ion 12B/4500 mA·h

Operation time

Normal mode — up to 8 hours If using rotary scanners — 4 to 5 hours

### Display

Display size

**Eddycon CL** 156 mm × 94 mm; 7.2"

Type

Colour TFT (800×480 pixels)

Display modes

Normal, full-screen; three colour schemes

Grid

Three types: coarse, fine, polar

### Connectivity and data storage

PC software

Test results processing program

Data storage

MicroSD 4 Gb internal memory card (up to 64 Gb as an option);

### ET specifications

Frequency range

10 Hz to 16 MHz

Gain

70 dB

Probe supply voltage

0.5 V; 1V; 2V; 4V; 6V

Additional gain

30 dB

Phase rotation

0 to 359.9

Digital scale

1/16 to 16, with a step of 6 dB

Test frequency

1 to 11 kHz



Signal indication time	0.1 s; 0.3 s; 0.5 s; 1 s; 2 s; 3 s; 4 s; 5 s; 8 s
Filter	Low-pass: 1 to 5 500 Hz High-pass: 1 to 5 500 Hz Bandpass Averaging Differential
Connected probes	Single- & transformer-type
Probe connector	Lemo 00, Lemo 12-way / Lemo 16-way
Signal display modes	Complex plane – X(y); Time base – X(t), Y(t); Dual-frequency mode
Threshold level types	Circle, Threshold, Sector, Trapezium
Multi-frequency operation	Dual-frequency multiplexing; Independent control of both frequencies; Mix of two frequencies (F1 - F2, F1 + F2)