

新製品 ELOTEST M3 : テーブルトップ型渦流探傷器

未来派高性能小型軽量テーブルトップ型渦流探傷器

片手保持タイプ渦流探傷器として既に市場で認められた小型で且つパワフルな ELOTEST M2 ベースに開発された新製品 ELOTEST M3は、目を見張るほど鮮明で明るいLED表示を提供します。複数の検査員が評価イメージを再度検討しなければならない時や、抱え込みながらプローブを正確に取り扱うことが難しい場合など 使い安いパラメータ調整機能と大きなディスプレイを有する M3 は、存分にその特徴を発揮する渦流探傷器といえるでしょう。更に Pre-amplification の採用により、最大ゲイン 120dB の高性能を実現しました。またノイズや立ち上がり(リフトオフ)との混同を避け検出信号を表示できる Axis Spread 機能は、他社に類を見ない機能です。

ELOTEST M3 は、手動による表面検査、ポアホール検査、伝導率また多重構造とコーティング厚さ測定に最適です。

当社では、当該製品を含めた高性能機器を始め、簡易な渦流探傷器まで幅広く製品を取り揃えております



主な仕様と特徴

本体サイズ (mm)	: 200 (W) x 76 (D) x 180 (H)
重量	: 1.2 kg
ディスプレイサイズ	: 120 mm x 89 mm
周波数レンジ	: 2 周波数

- 10 Hz から 12 MHz までの広域周波数帯
- ローパス、ハイパス、バンドパスフィルター機能を標準装備
- 60dB メインゲインおよび 60dB プリゲイン調整
- 独自に調整可能な 2 周波検査 (シングルプローブ)
- 10 キー操作による理解しやすい図表示
- 一般的に利用可能なすべてのプローブは ELOTESTM3 から操作可能
- 最適化されたローター操作機能を標準装備

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SPECIFICATIONS

User-Interface ELOTEST M3

- Pictograph-based operation via key pad with key-click
- 6 languages: English, German, French, Italian, Swedish, and Spanish
- Direct-function keys for offset- and liftoff-compensation
- Programmable function key
- Intuitive operation using only one submenu-level
- Speed control for rotor (torque compensated) in 10 steps (corresponds to approx. 900rpm to 2700rpm using Rohmann standard rotors)

Probe Connection

- 11-pin Fischer socket, compatible with the 8-pin Fischer connector
- BNC connector for parametric probes (resonant probes)
- OEM probes to be connected via an adapter or directly to the BNC connector

Activ Probe Compensation

- Compensation of the probe response signal for optimum signal dynamics
- Automatic test frequency selection using the probe characteristics
- Automatic balancing of single-coil probes using finely graduated, internal compensating loads (no external elements required)

Frequency Range

- 10Hz to 12MHz, continuously adjustable, quartz stabilized, display in Hz, kHz, MHz
- Adjustable driver current to 100% in 2% steps, (100% \approx \pm 10V at $I_{max}=0.3A$)
- Dual-frequency operation in multiplex-mode (on one probe)

Gain

- Preamplification 0 to 60dB in 0.5dB steps (0 to 40dB in 100kHz range)
- Gain 0 to 60dB in 0.5dB steps
- Axis spread 0 to 20dB in 1dB steps
- Automatic selection of preamplification and gain

Display Modes

- Impedance plane/spot display (X/Y), available for all probes
- Time-base/sweep display (Y/t) 5ms bis 60s in 17 steps, synchronized
- Simultaneous X/Y- and Y/t-display (dual-screen mode)
- Reference signal may be displayed in the background
- 2 screen grid sizes with adjustable intensity
- Selectable display range: X/Y center – X/Y center bottom – X/Y center right
- Freely positionable zero point
- Automatic trigger during rotor operation
- Simultaneous multi-signal display during multi-frequency operation
- Persistence: 0.1s to 70s adjustable in 12 steps
- On-screen signal storage: cleared manually or via auto-erase (2s - 80s)

Gates/ Alarm

- Alarm: optical and acoustic
- Active in all display modes; may be inverted
- Adjustable gates: +Y-gate, Box-gate, Circle-gate with adjustable fl at in the Y-direction

Parameter Settings/Image Memory

- 99 user settings may be programmed, stored and recalled
- Application-related factory default settings (cannot be overwritten)
- 32 signal memories incl. parameter settings for documentation
- Parameter setups and images may be named using alphanumeric characters
- Long-term recording (strip chart) of X- and Y-signals, from 20s to 24hrs; 90.000min/max-values (envelope, without data-loss)
- Data storage maintained (backup-battery)

Conductivity Measurement

- Measurement in % IACS or MS/m from 1% IACS to 110% IACS
- Measuring frequency 60kHz
- Calibration using 2 individually adjustable calibration points

Coating Thickness Measurement

- Measurement of non-conductive layers on conductive non-ferromagnetic materials
- Measurement range up to 1000 μ m

Multi-Frequency Operation

- 2-frequency multiplex
- Multiplex rate up to 1kHz
- Both frequencies fully adjustable, independent of each other
- Signal mix-function to suppress unwanted effects

Interfaces

- RS232-interface for PC or printer (HP Laserjet and Epson LX80)
- Bluetooth for wireless communication

Operation with Lithium-Ionen Accu

- Without rotor: approx. 4.5 hrs
- With rotor: approx. 3.5 hrs
- Indication of remaining charge capacity
- Acoustic and optical alarm for low battery
- Charge time Lithium Ion Battery from 0% to 70% - approx. 1 hour
- Charge time Lithium Ion Battery from 0% to 100% - approx. 6 hours
- Accu may be replaced in less than 10 seconds

Ambient Conditions

- Operation between -20°C (-4°F) and 50°C (122°F) at max. 85% rel. humidity (non-condensating)
- Storage between -30°C (-22°F) and 80°C (176°F) at max. 85% rel. humidity (non-condensating)
- Accu charge between 0°C (32°F) and 40°C (104°F) at max. 85% rel. humidity (non-condensating)

Power Supply

- Li-Ion battery (14.8V/1.95Ah) charging time with charging station LS: approx. 1.5 hours to 80%, 3 hours to 100%
- Mains operation via wide-range charger (90 - 250VAC)

PC-Software

- Setting Manager PC software to archive parameter settings and to document screen dumps and inspection protocols

製品詳細情報 http://www.rohmann.de/p/p/83_15_Products-new-ELOTEST-M3.html

Rohmann 社、製品ラインアップにつきましては http://www.rohmann.de/p/118_53_Navigation-Home.html をご参照ください。