

ELOTEST IS3

Single-channel eddy current test instrument for automated testing



- ▶ Single-channel test instrument for static and dynamic testing
- ▶ Frequency range from 10 Hz to 12 MHz
- ▶ Large display with intuitive user interface and X/Y- and Y/t-signal display
- ▶ Protection class IP54; various mounting options
- ▶ Low-cost in-line test instrument with full functionality

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

Active Probe Compensation

- ▶ Compensation of the probe response signal for optimum signal dynamics

Frequency Range

- ▶ 10Hz to 12MHz, continuously adjustable, quartz stabilized, display in Hz, kHz, MHz
- ▶ Adjustable driver current to 100% in 2% steps (100% \approx +/-10V at $I_{max}=0.3A$)

Gain

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

Phase

- ▶ 0-359.5° in 0.5° steps; step size adjustable

Filter

- ▶ Low-pass filter 1.3Hz to 10kHz in 40 steps
- ▶ High-pass filter 0Hz to 10kHz in 40 steps
- ▶ Band-pass filter 0Hz to 10kHz, combination of HP and LP
- ▶ Selectable automatic filter for rotor operation
- ▶ HD-filter to optimize the defect classification during rotor inspection (e. g. distinction crack/corrosion)

LCD – Display

- ▶ LCD featuring long-life LED backlight, 120 x 89mm (4.72" x 3.5")
- ▶ Temperature-compensated contrast setting
- ▶ Resolution 320 x 240pixel, refresh rate 75Hz,
- ▶ 220.000 data samples/second, no signal delay
- ▶ Signal display covering 100% of the screen; over 89% with menu displayed
- ▶ 80° viewing angle

Display Modes

- ▶ Impedance plane/spot display (X/Y), available for all probes
- ▶ Time-base/sweep display (Y/t) 5ms to 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
- ▶ 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 flat 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 alphanumerical 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)

Interfaces

Digital I/O signals, test enable input, threshold alarm output, ready output and external 24VDC supply are available on a 5 pin M12 size connector

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)

Dimensions

- ▶ Height: 180mm (7")
- ▶ Width: 199mm (7.8")
- ▶ Depth: 62mm (2.4")
- ▶ Weight: 1.2kg (2.6 lbs)

Power Supply

External 24VDC power supply required via 5 pin M12 size connector