

IS3 ELOTEST

NEW

ELOTEST IS3 -

Single-channel eddy current test instrument for automated testing tasks



- **Single-channel test instrument**
- **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**

Technical Data

User-Interface ELOTES 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% = +/-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

