Universal Testing Machine

Model - UNITEK 1650-TS
Built-in Computerized Touch Screen Control Panel Series: UNITEK 1600-TS

PLC based panel incorporating state of art technology with following features:

- Front panel touch screen display
- Data entry of test parameters including pre-load, rupture %, Safe Load & Specimen data etc.
- Online graph of load Vs Displacement directly on screen.
- USB Printer port for printer interface with graph & result print out.
- Facility to export the result/Data to PDF, EXCEL, WORD & CSV formats.
- Windows based software available for Online graph on PC, Data analysis, Statistics, Point tracing, superimposing graphs to compare with standard, zooming graph etc.

Printer port for printer interface with:

- Graph & result print-out.
- Test Certificate print-out.
- Batch certificate print-out.
- Simple statistics print-out.

Technical Description:

'FIE' Universal Testing Series Unitek-1600 are PLC based electro mechanical machines with servo drive designed for testing & studying mechanical behavior of various materials like metals, polymers etc.

These machines offer good built-in features to offer excellent stand alone performance for standard tests and great flexibility for complex analysis. These machines conform to IS, BS & ASTM standards.

Features:

- Precision AC servo motor & drive with ball load screw gives an advanced drive system with 1 to 500 standard speed range.
- Provision for load cell interchangeability & thereby automatic selection of load full scale & Units (kN or N).
- Speed selection through data entry or variable speed through potentiometer.
- Facility for mounting different load cells & clamping devices to suit different tests & materials such as thin wires, metal sheets, fiber glass, leathers, springs, card boards etc.
- Built-in parallel interface to connect Dot matrix printer for data & curve print-out.
- Safety interlock for overload & limit switch sensing to ensure protection during test.
- Universal applications in R&D, Education, Quality control & Production for test like, Tensile, Compression, Bending etc.

Optional Accessories:

'FIE' offers a wide range of optional accessories along with Unitek 1600-TS Machines to cover almost every material test requirement.

Load Cells:

'FIE' offers Strain gauge type Universal load cells in different capacities in the following nominal ranges:

100N, 250N, 500N, 1kN, 2.5kN, 5kN, 10kN, 25kN, 50kN, 100kN, 200kN load cells to different capacity can be offered as per customers requirements.

Grip & Clamping Devices:

A wide range of grips are available from 'FIE' such as:

- Wedge type grips for flat & round specimens with different inserts (Manual / Hydraulic)
- Vice type grips
- Single threaded grips.
- Compression plates.
- Bending fixtures.
- Shearing attachments.

Extensometers:

- Electronic extensometers are offered with interface card on the control panel to measure extension, Model: EE2-Strain Gauge (With 1 micron resolution).
- Long travel extensometer, Model: LTE-800.
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Home Screen
Displays values of load, displacement & extension with dial for displaying load.

Graph superimpose, Comparison & point tracing
Graph comparison, superimpose of batch sample tests with Graph zooming and point tracing facility.

Real time graph
Real time values of load and displacement / extension used for plotting its graph & can be seen real time during testing & facility to convert the units simultaneously.

Load Vs Extension
Displays graph for extensometer readings against load with proof lines for proof stress.

Final Result
Displays basic results of test conducted & automatically pop ups after test ends with facility to convert the units.

Statistics
Batch test reports with statistics for batch sample results & can be exported to various formats (DOC, XLS, CSV & PDF).