Universal Testing Machine

Model - UNIPRO

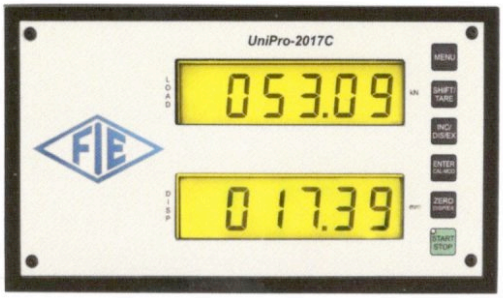
GENESISS ENGINEERS

Universal Testing Machine
Model : UNIPRO

Electronic Control Panel (Series UNIPRO-2017 C) :

Microcontroller based panel incorporating state of art technology with following features -

- Segment LCD with bigger font.
- Front panel membrane type key board for machine operation and data entry.
- Data entry using key board of test parameters including rupture % peak, pre-load & specimen data etc.
- Calibration secured with password protection.
- Software calibration provision.



Accuracy and Calibration :

FIE Electronic Universal testing machine is closely controlled for sensitivity, accuracy and calibration during every stage of manufacture.

Machine is calibrated over each of its measuring range in accordance with the procedure laid down in British standards 1610: Part1: 1992 and IS 1828: Part1: 1991.

FIE Electronic Universal Testing Machine complies with Grade "A" of BS: 1610:Part1:1992 and class 1 of IS-1828-Part1:1991.

Optional Control Panel (Series UNIPRO-2017 E) :

Microcontroller based panel incorporating state of art technology with following features -

- 7 segment based Universal Control Panel.
- Front panel membrane type key board for machine operation and data entry.
- Data entry using key board of test parameters including rupture % peak, pre-load & specimen data etc.
- Calibration secured with password protection.
- Software calibration provision.

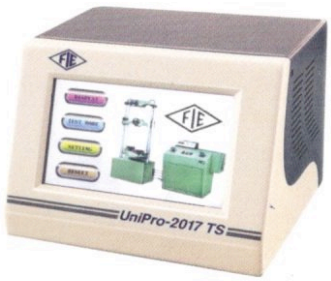
UNIPRO-2017 E

Features :

- Open type cross head
- Hydraulic wedge action grips
- Long test stroke and dual test space
- Loading accuracy as high as ± 1%
- Straining at variable speeds to suit a wide range of materials.
- Printer & PC graphs enable study the behavior of the material.
- Motor driven threaded columns for quick effortless adjustment of lower cross-head-to facilitate rapid fixing of test specimen.
- Simplicity in reading because of digital readouts.
- Wide range of standard and special accessories, including load stabilizer.
- Easy change from plain to threaded and screwed specimens.
- Large effective clearance between columns enables testing of standards specimens as well as structures.
- Simple controls for ease of operation.
- Robust straining frame of an extremely rigid construction.
- Safe operation ensured by means of safety devices.
- Fully enclosed and protected pressure transducer.
- RS 232 serial port to transfer data to computer for analysis/USB evaluation etc.
- Manual control & release valve operation.
- Load Capacity : 100 kN, 200 kN, 400 kN, 600 kN, 1000 kN and 1200 kN.

Optional Control Panel (Series UNIPRO-2017 TS) :

- HMI based Universal control panel.
- Data entry using Touch Screen technology.
- UNIPRO-2017 TS provides facility to store data in SD card.
- Live graph viewed on HMI screen, hence no need of PC.
- Result page provides facility to view graph replay for data analysis.
- SD card data can be easily viewed on MS-Excel.
- User friendly software, easy to operate.
- Separate pages provision to view data, data with graph, result & calibration page.



UNIPRO-2017 TS

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Technical Specifications for - Universal Testing Machine
Series - UNIPRO

MODEL	UNIT	UNIPRO 10	UNIPRO 20	UNIPRO 40	UNIPRO 60	UNIPRO 100	UNIPRO 120
Maximum Capacity	kN	100	200	400	600	1000	1200
Measuring range	kN	0-100	0-200	0-400	0-600	0-1000	0 – 1200
Load resolution (20000 counts full scale)	N	5	10	20	30	50	60
Load range with accuracy of Measurement +/-1%	kN	2 to 100	4 to 200	8 to 400	12 to 600	20 to 1000	24-1200
Resolution of piston movement (Displacement) for UTE	mm	0.1	0.1	0.1	0.1	0.1	0.1
Resolution of piston movement (Displacement) for UTES, UTE-TS & UTES-TS series)	mm	0.01	0.01	0.01	0.01	0.01	0.01
Clearance for tensile test (At fully descended working piston)	mm	50-700	50-700	50-700	50-800	50-850	50-850
Clearance for compression test (At fully descended working piston)	mm	0-700	0-700	0-700	0-800	0-850	0-850
Clearance between columns	mm	500	500	500	600	750	750
Ram Stroke	mm	150	200	200	250	250	250
Straining/ Piston Speed (at no load)	mm/min	0-300	0-150	0-150	0-100	0-80	0-65
CONNECTED LOAD							
Power	HP	2.33	2.33	3.33	3.5	3.5	3.5
V		400-440	400-440	400-440	400-440	400-440	400-440
Φ		3	3	3	3	3	3
STANDARD ACCESSORIES							
FOR TENSION TEST							
Clamping jaws for round specimens of diameter	mm	10-20	10-20	10-20	10-20	10-20	10-20
		20-30	20-30	20-30	20-30	20-30	20-30
		.....	.....	30-40	30-40	30-40	30-40
		.....	.....	.....	.....	40-50	40-50
Clamping jaws for flat specimens of thickness	mm	0-10	0-10	0-10	0-10	0-10	0-10
		10-20	10-20	10-20	10-20	10-20	10-20
		.....	.....	20-30	20-30	20-30	20-30
		.....	.....	.....	.....	30-40	30-40
Width	mm	50	50	65	70	70	70
FOR COMPRESSION TEST							
Pair of Compression Plates of diameter.	mm	120	120	120	120	160	160
FOR TRANSVERSE TEST							
Table with adjustable rollers							
width of rollers	mm	160	160	160	160	160	160
Diameter of Rollers	mm	30	30	30	50	50	50
Maximum clearance between supports	mm	500	500	500	600	800	800
Radius of punch tops	mm	6,12	6,12	12,16	16,22	16,22	16, 22