

LS100Plus Series 100kN Materials Testing System

The LS100Plus is an affordable, advanced, twin column materials testing machine incorporating an extensive range of features. It is ideal for performing both routine and complex testing applications up to 100 kN (22481 lbf).

This bench mounted machine is microprocessor controlled and incorporates world proven 32 bit technology for highly accurate load measurement and rapid data acquisition. The integral user interface consists of a side mounted control console with large, positive action membrane switches, allowing complex tests to be performed at the touch of a button. A back lit 4 line LCD display shows the test and set up information in a wide choice of user selectable languages and units.

The stand alone system is capable of storing up to 600 test results from a choice of ten programmable test set ups. For additional flexibility, it can also be

connected to a personal computer running Lloyd Instruments NEXYGEN™ MT data analysis software, to provide almost unlimited testing and results processing capability in a familiar Windows environment.

The high stiffness frame incorporates a crosshead guidance system to prevent side loading of the sample under test. The crosshead is driven by twin lead screws and a high precision servo motor and DC servo system to achieve a wide range of speeds throughout the full load range.

A series of highly accurate, interchangeable loadcells is available for tension, compression and cycling through zero force measurements. An extensive range of grips and fixtures are also available to support virtually any type of test. The system is ideal for use in production, quality control, education and research environments.

Features

- Simple to set up, operate and maintain
- 2 key press operation
- High accuracy load measurement (0.5% of reading)
- Data sampling rate 8 kHz
- 32 bit micro controller
- Saves 600 test results
- 10 programmable test set-ups
- Extension resolution < 0.03 micron
- Long crosshead travel 840 mm (33 in)
- Multi-lingual display options
- Multi-unit display options
- Full PC integration with NEXYGEN MT software
- Flash upgradeable
- Wide selection of loadcells, grips, jigs, extensometers, temperature chambers and other accessories

Specifications

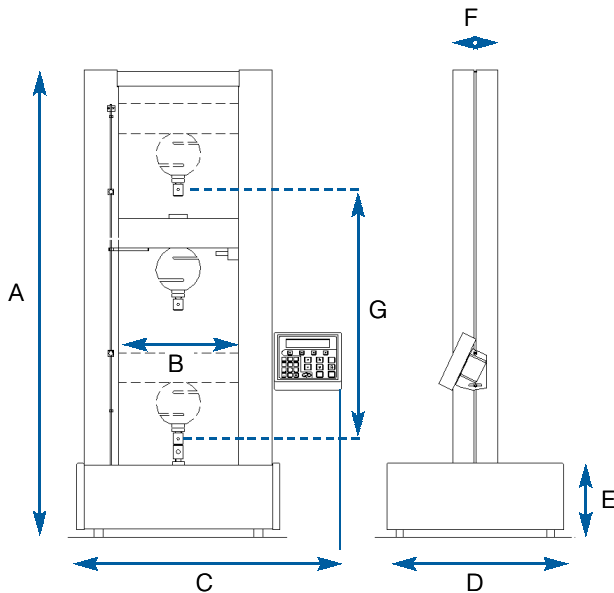
| | |
|------------------------|--|
| Force Capacity: | 100 kN (22481 lbf) |
| Crosshead Speed: | 0.001 to 250 mm/min to 50 kN (0.00004 to 10 in/min to 11241 lbf) |
| | 0.001-100 mm/min to 100 kN (0.00004 to 4 in/min to 22481 lbf) |
| Speed Accuracy: | < 0.2% |
| Travel: | 840 mm (33 in) |
| Load Resolution: | < 0.005% of loadcell used (max.) |
| Loadcell Accuracy: | ± 0.5% of reading |
| Extension Resolution: | < 0.03 micron |
| Data Sampling Rate: | 8 kHz |
| Display: | 40 character x 4 line backlit LCD |
| Extensometer Inputs: | Digital and Analogue Extensometer |
| Data Outputs: | Digital - RS232, Analogue 10V dc max (optional) |
| Load Measuring System: | Exceeds the requirements of BS EN ISO 7500-1, ASTM E4, DIN 51221 |
| Analysis Software: | NEXYGEN MT Data Analysis Software and Ondio Applications Builder Software |
| Supply Voltage: | 115/230V ac +/- 10%, 50-60 Hz |
| Weight: | 200 kg (440 lb) |
| Operating Temp: | 5° to 35° C (40° to 95° F) |
| Warranty: | 2 years |



Accessories

| Item | Part No | Item | Part No |
|---------------------|---------|---|------------|
| Loadcells: | | Extensometers: | |
| 5 N (1.12 lbf) | 01/2946 | A comprehensive range of contacting and non contacting extensometers are available. For further information see specification sheet number: | SS-MT-6603 |
| 10 N (2.25 lbf) | 01/2360 | | |
| 20 N (4.5 lbf) | 01/2950 | Application Software: | |
| 50 N (11.25 lbf) | 01/2361 | NEXYGEN™ MT | 40/0658 |
| 100 N (22.5 lbf) | 01/2480 | NEXYGEN™ MT/Ondio software suite | 40/0695 |
| 250 N (56.25 lbf) | 01/3048 | | |
| 500 N (112.5 lbf) | 01/2362 | Grips & Fixtures: | |
| 1000 N (225 lbf) | 01/2419 | All grips and fixtures up to a capacity of 100 kN (22481 lbf) can be used. | |
| 2500 N (562.50 lbf) | 01/2363 | | |
| 5000 N (1124 lbf) | 01/2364 | | |
| 10 kN (2248 lbf) | 01/2365 | | |
| 20 kN (4496 lbf) | 01/2417 | | |
| 30 kN (6744 lbf) | 01/2366 | | |
| 50 kN (11241 lbf) | 01/2367 | | |
| 100 kN (22481 lbf) | 01/2896 | | |

Machine Dimensions



| | | mm | in |
|---|----------------|------|------|
| A | Machine Height | 1565 | 61.6 |
| B | Working Width | 404 | 15.9 |
| C | Machine Width | 893 | 35.2 |
| D | Machine Depth | 596 | 23.5 |
| E | Base Height | 240 | 9.5 |
| F | Column Depth | 150 | 5.9 |
| G | Maximum Travel | 840 | 33.0 |

Ordering Information

| Model | Part No | Capacity | Description |
|-----------|---------|--------------------|------------------------|
| LS100Plus | 01/3174 | 100 kN (22481 lbf) | LS100Plus with Console |



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