

LR5KPlus 5 kN Universal Materials Testing Machine

The LR5KPlus advanced materials testing machine incorporates an extensive range of features making it ideal for performing complex as well as routine testing applications up to 5 kN (1124 lbf). The standard LR5KPlus features a twin column design with a maximum crosshead travel of 975 mm (38.4 in). Extended machine column options (LR5KPlus-E models) for testing high elongation materials are also available.

This bench mounted machine is microprocessor controlled and incorporates world proven 32 bit technology for highly accurate load measurement and rapid data acquisition. The LR5KPlus features an integral user interface consisting of a side mounted control console with large, positive action membrane keys, 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. Test parameters are entered using the keypad in a sequential menu driven format.

For additional flexibility, the LR5KPlus can also be connected to a personal computer with optional Lloyd Instruments NEXYGENPlus material test and control software. NEXYGEN software provides 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 motor to achieve a wide range of speeds throughout the full load range.

A series of highly accurate, interchangeable load cells is available for tension, compression and cycling through zero force measurements. Our extensive range of grips and fixtures support virtually any type of test. The system is ideal for use in production, quality control, educational and research environments.

Features

- Simple to set up, operate and maintain
- High accuracy load measurement
- Constant load holding
- Data sampling rate 8 kHz
- Load rate control
- Saves up to 600 test results
- 10 programmable test set ups
- Pre-loading of samples and cycling to load or extension limits
- Multi-stage testing with NEXYGENPlus software
- Extension resolution < 0.1 microns
- Multi-lingual display options
- Multi-unit display options
- Flash upgradeable
- Extended column options for testing high extension materials
- Wide selection of load cells, grips, jigs, extensometers, temperature chambers and other accessories

Specifications

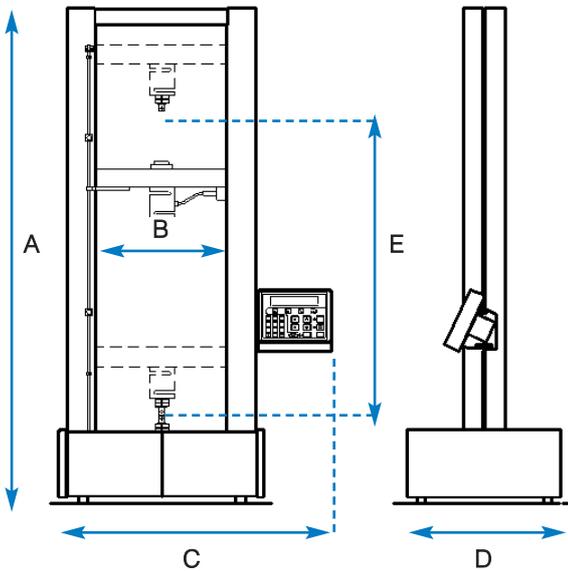
Force Capacity:	
LR5KPlus (Standard)	5 kN (1124 lbf)
LR5KPlus-E (Extended)	5 kN (1124 lbf)
Crosshead Speed Range:	0.01 to 1016 mm/min (0.0004 to 40 in/min)
Speed Accuracy:	<0.2% at steady state
Maximum Crosshead Travel:	
LR5KPlus	975 mm (38.4 in)
LR5KPlus-E	1463 mm (57.6 in)
Width Between Columns:	404 mm (16 in)
Minimum Load Resolution:	0.0001 N (Load cell specific)
Load Cell Accuracy:	<0.5%
Extension Resolution:	<0.1 microns
Data Sampling Rate:	8 kHz
Display:	40 character x 4 line backlit LCD
Extensometer Inputs:	Digital and Analogue
Load Measuring System:	EN ISO 7500:2004 Class 0.5 ASTM E4
Software:	NEXYGENPlus Data Analysis Software
Supply Voltage:	230Vac ±10%, 50-60 Hz, Fuse T3.15AH250V 115Vac ±10%, 50-60 Hz, Fuse T6.3AH250V
Weight:	
LR5KPlus	99 kg (218 lb)
LR5KPlus-E	103 kg (227 lb)
Operating Temperature:	5° to 35°C (41° to 95°F)



Accessories

Item	Part No	Item	Part No
Load Cells:		Extensometers:	
5 N (1.12 lbf)	01/2946	We supply contacting and non-contacting extensometers. For further information see our extensometer specification sheets.	
10 N (2.25 lbf)	01/2360	Temperature Chambers and High Temperature Furnaces:	
20 N (4.5 lbf)	01/2950	A range of thermal chambers and furnaces are available. For further information see our specification sheets.	
50 N (11.25 lbf)	01/2361	Splinter Shields:	
100 N (22.5 lbf)	01/2480	Splinter shields can be supplied to your specific requirements. Contact Lloyd Instruments for further information.	
250 N (56.25 lbf)	01/3048	LR5KPlus-CC Large Compression Cage Option:	
500 N (112.5 lbf)	01/2362	The LR5KPlus machine can be ordered mounted above a floor standing compression cage for larger sample testing. Contact Lloyd Instruments to discuss your specification needs.	
1000 N (225 lbf)	01/2419		
2500 N (562.50 lbf)	01/2363		
5000 N (1124 lbf)	01/2364		
Application Software:			
NEXYGENPlus	40/0771		
Grips & Fixtures:			
A wide range of grips and fixtures are available. For further information see our grip specification sheets.			

Machine Dimensions



	mm	in
A (Standard machine height)	1565	61.2
A (Extended machine height)	2055	80.9
B	404	16.0
C	820	32.3
D	480	18.9
E (Standard machine travel)	975	38.4
E (Extended machine travel)	1463	57.6



Tensile test



Compression test



Flexure test

Ordering Information

Model	Part No	Capacity	Description
LR5KPlus	01/3051	5 kN (1124 lbf)	LR5KPlus Materials Testing Machine with Console
LR5KPlus-E	01/3073	5 kN (1124 lbf)	LR5KPlus Materials Testing Machine (Extended) with Console

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