

# Penetrómetro FR-5120, Capacidad 20.00 Kg, Lutron LT-FR5120

www.twilight.mx







## FRUIT HARDNESS TESTER 20 Kg

Model: FR-5120 *ISO-9001, CE, IEC1010* 





The Art of Measurement

### 20 Kg X 0.01 Kg ( 10 g ), Precision Fruit Sclerometer

## FRUIT HARDNESS TESTER

Model: FR-5120

#### **FEATURES**

	EXT GREE
*	The tester is used to measure the hardness of most kind
	fruits such as apple, pear, strawberry, grape, large/hard
	fruits, small/soft fruits. It is suitable for the fruit
	scientific research department, fruit company, fruit farm,
	agriculture colleges and universities to improve the fruit
	quality, the harvest storage, the product transportation
	by the fruits' hardness. The useful tester to judge fruit's
	mature degree.
*	Max. capacity: 20 Kgf x 0.01 Kgf ( 10 gf ).
*	Unit: Kg/LB/Newton.
*	Use load cell sensor, high precision.
*	Digital display with Peak hold function, easy
Ļ	measurement.
*	Tension or Compression, Zero.
*	Positive/ Reverse display.
*	Large LCD display with back light.
	Tip size: 3 mm, 6 mm, 8 mm, 11 mm.
*	RS-232/USB computer interface.
*	Complete set with hard carrying case and 4 kind tips
	( 3 mm, 6 mm, 8 mm, 11 mm ).
	Test stand, FS-1001, optional.
	USB cable ( USB-01) and the data acquisition are optional.
*	Peak hold (Max. load) can be held in display during
Ļ	make the measurement.
*	Zero button can operate both for normal measuring
	& the " peak hold " operation.
	Full capacity zero (tare) control capability.
*	Fast/Slow response time push button.
*	Hand held & stand mounted gauges are available.
*	Low power consumption gives long battery life.
*	Microprocessor circuit & exclusive load cell transducer.
*	Over load protection.
*	Built-in DC 9V power adapter input socket.
*	Range of 0 to 13 Kg (Appropriate for fruits such as apples,
	pears, peaches or kiwis), with the 6 mm diameter sensor
1.	(FRTP-6) or 11 mm diameter sensor (FRTP-11).
*	Range of 0 to 20 Kg (Appropriate for very hard fruits)
	using the 11 mm diameter sensor (FRTP-11).

#### **SPECIFICATIONS**

Principal	The hardness of Fruit can express by the unit area (S) could undertake the
	pressure of dynamometer ( N), their
	specific value is just as the hardness (P).
	P = N / S
	P = Hardness value of fruit ( Kg/cm^2 )
	N = Pressure of dynamometer ( N, Kg, LB )
	$S = Area of pressure (m^2, cm^2)$
Display	LCD ( Liquid crystal display ).
	5 digits, 16 mm (0.63") digit size.
	Back light.
Display	Positive or Reverse direction, select by
Dif';f	the push button on the front panel.

Function	Tension & Compression (Push & Pull).
	Normal force, Peak hold (Max. load).
Peak hold	Will freeze the display value of the
	Peak load ( Max. load ).
Zero	Zero button can be operated both for
	"normal force" or "peak hold" operation
Unit select	Kg/Newton/LB.
Measure	20.00 Kg/44.10 LB/196.10 Newton.
Capacity	
Resolution	0.01 Kg/0.01 LB/0.05Newton.
Min. Display	0.02 Kg/0.07 LB/0.3 Newton,
Accuracy	$\pm$ (0.5 % + 2 digits), within 23 ± 5°C.
·	* Under the test weight on 10 Kg & 20 Kg.
Update time	Fast Approx. 0.2 second.
	Slow Approx. 0.6 second.
Over range	Slow Approx. 0.6 second.  Display show " " when in over
Indicator	range status.
Data output	RS-232 serial computer interface.
Overload	Max. 30 kg.
Capacity	
Full Scale	Approx. 0.4 mm max.
Deflection	, <b>, , , , , , , , , , , , , , , , , , </b>
Zero/tare	Max. full capacity.
Control	man run supusny.
Circuit	Exclusive microprocessor LSI-circuit.
Power Supply	6 x 1.5 V AA (UM-3) size battery
. от о. очрр.)	or DC 9V adapter (not included).
Power	Approx. DC 28 mA
Consumption	, pp. 5.1. 2 5 25 11.1.
Transducer	Exclusive load cell.
Operating	0°C to 50°C ( 32°F to 122°F ).
Temperature	
Operating	Less than 80% RH.
Humidity	2000 111011 00 70 11111
Dimension	215 x 90 x 45 mm ( 8.5 x 3.5 x 1.8 inch ).
Weight	650 g (1.43 LB)/with batteries.
Data output	RS-232 serial computer interface
Mounting	Main instrument with mounting holes are
Holes	provided on the back case, easy stand
110103	mounting.
Accessories	Operating manual
Included	11 mm Penetrometer Tip, FRTP-11 1 PC.
meiaaca	•
	8 mm Penetrometer Tip, FRTP-81 PC.
	6 mm Penetrometer Tip, FRTP-61 PC.
	3 mm Penetrometer Tip, FRTP-31 PC.
	Carrying case1 PC.
Optional	* Test stand, Model : FS-1001
Accessories	<ul> <li>* RS232 cable, Model: UPCB-01.</li> <li>* USB cable, Model: USB-01.</li> <li>* SD card data recorder, DL-9602SD.</li> <li>* Software for data logging &amp; data recorder, Model: SW-U801-WIN.</li> </ul>

<sup>\*</sup> Appearance and specifications listed in this brochure are subject to change without notice.



### **ULÁMANOS**

+52(81) 8115-1400 / +52 (81) 8173-4300

LADA Sin Costo: **01 800 087 43 75** 

E-mail: ventas@twilight.mx



