LABDEX

Textile Balance

LX105TBL

USER MANUAL

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1. Introduction

It is high precision load cell sensor with compact design with LCD display. The all four-side glass shield design offers protection to the weighing sample to weigh accurately as standard. Features with multi weighing unit conversation g, oz, Tex, Nm, Ne, D, g/m2, oz square yard. It offers RS232C Interface easy operation and used in textile enterprises, scientific research institutions etc.

2. Features

- Suitable for testing all kinds of yarns, fibers and fabrics
- Conversion of seven textile units g, oz, Tex, Nm, Ne, D, g/m2, oz square yard
- Work under ambient temperature range 5 to 25°C
- Offers 90 mm diameter pan for weighing
- It setups time, date, yarn blend code and sample length
- Designed with load cell sensor
- LCD display with white back light and black font
- Print statistics for each weighing value and maximum (Max), minimum (Min), average value (AV), and Uneven rate (CV)
- External calibration, windshield and printer to print results

3. Specifications

Model	LX105TBL
Weighing capacity	210 g
Sensor	Load cell
Minimum weighing	0.004 g
Resolution	0.001 g
Display	LCD (white back light with black font)
Pan size	Φ 90 mm
Operation temp	5-25 °C
Repeat ability	± 0.002 g
Liner	± 0.003 g
Draft shield size	240 x 190 x 265 mm
Test mode	g, oz, Tex, Nm, Ne, D, g/m2, oz/yd2
Cal. weight	200 g
Packing dimension	475 x 315 x 485 mm
Gross weight	10 kg

4. Applications

- Textile Balance is used in the department for textile enterprises, scientific research institutions, universities etc.

5. Operations

5.1 Functions

1) The unit: OZ, Tex, Nm, Ne, D, g/m^2, oz/yd^2,g, eight units can be chosen.
2) Can test and store 200 sets of test reports, and can delete any one or add in.
3) Print date, time, sample length, and weighing value.
4) Can calculate the Mi/Max/Sum/AV, CV%, ETC value.

5.2 Operate Temperature

Range of temperature:	0℃~40℃
Temperature fluctuation:	5℃/h
Relative humidity:	50%~85%
Max Power	10W
Power Supply	220V±10%,50HZ±1HZ

5.3 Preparation Work

- Connect the printer to the balance using the RS232C interface.
- Place the balance on a stable table, away from direct sunlight and sources of mechanical vibration. Install the weighing pan, then adjust the leveling feet to ensure the balance is properly leveled.

5.4 Power On

Power on the balance and the printer, and then the display will show “8.8.8.8.8.8” , “=,=,=,……=”, and then go to “0.000” in this weighing mode.

5.5 The Function of the Keys

- **UP+DOWN:** Pressing these two keys at the same time will enter the query state, and you can use “UP” and, DOWN” to look at the storage
- **ENTER:** Enter the setting and go to next setting state.
- **DELET:** Delete anyone's storage.
- **CONVERSION:** Can choose the unit: OZ, Tex, Nm, Ne, D, g/m2, oz/yd2, g
- **PRINT:** Print the result of Min/Max/Sum/AV, CV%, etc value.
- **TARE:** It's tare and go zero, and pressing for a long time will enter the one-point calibration state.
- **MENU:** Enter the setting menu.
- CONVERSINON+RESET—Delete all storage.

5.6 Tare Function

- If there is a container on the weighing tray, the balance displays the weight of the container.
- Press “Tare” and then “0.00” will be displayed. It indicates that the tare has been deducted
- Place the thing into the container, and the balance will display the weight of the thing.
- Press the tare until it flashes”200.000” and put on the weight, then it shows “======”, when it shows”200.000” again, move away the weight and it will show “====: again, until display 0.000, calibration finish.

5.7 The Yarn Count Test

5.7.1 Manu Setting:

Press **MENU** and operate the settings below.

Item	Show	Setting	Setting Method
STORAGE MODE	C-- A/H	A : AUTO H: MANUAL	**UP, DOWN key choose, ENTER: enter and back**
SAMPLE LENGTH	L-- 100	1m, 3m, 5m, 10m, 25m, 50m , 100m	
BLENDED CODE	H-- 01	Can choose: 1--12	
DATE	00.00.00d	YEAR.MONTH.DAY	
TIME	00.00.00t	HOUR.MINUTE, SECOND	

5.7.2 Yam Blended Code Set:

Calculate the Ne, need to set the yarn blended. The upper shell does not include, please calculate as below:

Ne= 590.5 (1+Metric moisture regains) / Tex (1+British official regain)

Yarn name	**Pure cotton yarn**	**Polyester/ cotton 50/50**	**Polyester/ cotton 65/35**	**Polyester/ cotton 55/45**	**Polyester/ cotton 45/55**	**Polyester/ cotton 3565**
Code-H	1	2	3	4	5	6

Yarn name	**Polyester/ nitrile 65/35**	**Cotton/ polypropylene 50/50**	**Cotton/ nitrite 50/50**	**Polyester/ viscose 63/35**	**Polyester/ viscose 55/45**	**Cotton/ viscose 50/50**
Code-H	**7**	**8**	**9**	**10**	**11**	**12**

5.7.3 The Test of Yarn Sample

- Press **"CONVERSION"** to select the desired unit.
- Place the yarn sample on the balance. A voice prompt will indicate when the test is complete.
- Press **UP + DOWN** simultaneously to enter the menu. Use **UP** or **DOWN** to view the test results, then press **UP + DOWN** again to return to the weighing mode.
- When the printer's green LED is on, press **START** to begin printing.
- Press **CONVERSION + RESET** together to display **"d--ALL"**, allowing you to clear all digits.

5.8 Testing Example

5.8.1 Fabric Detection

Put the sample which was cut by the GSM cutter, for example, it show:2.58g. Then press the CONVERSION key, and when the unit shows "gm1," it means the result is: 258 g/m2.

5.8.2 The Yarn Density

- Set the sample length as 100m, H set to 1
- Put the 100m sample yarn on the pan, if the display show:3.58g, press the CONVERSION key when it shows "TEX", and then it will show the 35.8(no), Press CONVERSINON when it shows NM, the result will show 27.933(Nm).
- Press CONVERSINON when it shows NE, result will show 16.28(Ne).

5.9 Note

- Please power on and warm up before using
- Keep the max weight less than the capacity, otherwise it will break the balance.
- Please calibrate the balance when the balance is not accurate