

TB-300 Intelligent metal foil resistivity measuring

instrument



1 Overview

TB-300 A intelligent metal foil resistivity measuring meter is a patented product of our company. It is the only portable and fully automatic instrument in the world, for measuring resistivity and conductivity of metal foil and thin metal belt. The design of the high-tech products adopts current-voltage four-terminal measuring method, advanced electronic techniques, singlechip technique and automatic detection technology. The performances completely accord with the technical requirements of GB/T22638. 6–2016. It can be widely applied in the fields of metal foil, thin metal belt, , new engergy fields such as battery tab, electricity electrician, electical motor , colleagues and research institutes, etc.

2 Main features of the instrument

Used for measuring the resistivity of metal foil, thin metal belt, room temperature DC resistance at standard size.

Combining advanced electronic, singlechip and automatic measurement techniques in one instrument, with superior automatic functions and simple operation.

Name: Xiamen Tianyan instrument co.,Ltd.Wedsite: http://www.xmty1.comSales telephone:0592-3195308 ,18050108768Contact Person: Miss Peng



- All measured numerical values can be obtained by just one press on the key without any calculation. The instrument is adequate for continuous, fast and accurate measurements.
- > Battery power supply has small size thus easy to carry, suitable for indoor and open-field use.
- With large screen and font. Can display measured values and auxiliary parameters at the same time, including resistivity, room temperature DC resistance at standard size, resistance, temperature, measuring current and temperature compensation coefficient.
- One instrument has multiple applications, and has two measurement interfaces: metal foil room resistivity measurement interface and DC resistance measurement interface.
- The functions of automatic constant current selection, automatic current reversal, automatic zero point correction and overcome the error caused by thermal vlotage to line resistance and ensure the accuracy of each measurement.

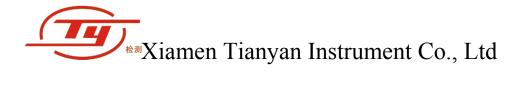
► The insturment comes with the temperature sensor of the environment and the temperature coefficient of various materials, and the temperature is automatically compensated.

► Optional series of calibration resistor, with related software, to realize automatic calibration of the instrument.

- Special portable four-terminal measuring fixture is suitable for fast measurements of different foil and belt material.
- The build-in data accumulator can record and save 1000 groups of measuring data and parameters. Connecting it to the host computer, the complete report can be generated.

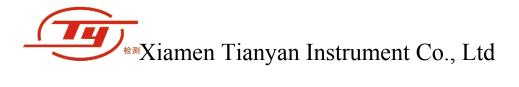
Parameter Item	Resistivity	Conductivity	Resistance
Measuring range	0.01μΩ·m~2.5μΩ·m	0.4MS/m~100MS/m 0.69%IACS~172%IACS	0.1μΩ~150Ω
Resolution	$10^{-4} \sim 10^{-6} \mu \Omega \cdot m$	0.01~0.001%IACS	0.1μΩ (I=1A)

3 TB-300 Main Parameters



Precision	±0.25%	±0.25%	100μΩ~150Ω: ±0.15%	
Temperature measurement	$-10^{\circ}\text{C} \sim +55^{\circ}\text{C}$ Precision $\pm 0.2^{\circ}\text{C} (0^{\circ}\text{C} \sim +40^{\circ}\text{C})$			
Internal constant current of the instrument	$16\mu A$ level $\sim 1A$ level (automatic selection according to the measuring requirement)			
measuring	with TBJ-300(300mm)portable testing fixture			
fixture	measure strip-type metal foil and thin metal belt			
Automatic temperature compensation	The measured value will be automatically compensated to the value at 20° C.			
measuring	room temperature DC resistance at stadard size R^{\prime} (T_{0}) , resistivity ρv ,			
items	room temperature resistance $R \ (T_0)$, resistance R			
Printout data	Date, time, temperature correction coefficient α and various measurements values of metal foil			
Normal working environment	Temperature: $0^{\circ}C \sim +40^{\circ}C$; relative humidity: $0 \sim 80\%$			
Display	Large LCD screen with backlight, can display multiple measuring parameters at the same time.			
Power supply	7Ah/7.4V chargeable lithium battery; battery power supply only, average working hour over 15 hours			
Internal memory	Can save 1000 groups of measured data.			
PC communication mode	RS232 serial port			
Weight	Host: 2.2kg Portable measuring fixture: 1kg			
Host size	285(W)*158(H)*120(D)			
Host shell	Shock-resistance engineering plastic			

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Packaging and	containing the host, measuring fixture, charger, communication cable, calibration resistor,		
protection	operation manual and mini-printer.		