

JITAI8102 Surface Roughness Tester



I. Introduction

The surfaces roughness tester is suitable for shop floor use and mobile measure to need of a small handheld instrument, its operation is simple, function overall, measure fast, accuracy stability, take convenience. This tester applies to production site and can be used to measure surface roughness of various machinery-processed parts. This tester is capable of evaluating surface textures with a variety of parameters according to various national standards and international standard. The measurement results are displayed digital/graphically on the OLED, and output to the printer.

II. Main feature

- Electromechanical integration design, small size, light weight, easy to operation
- Using DSP chip to control and data processing, high speed, low power consumption;
- 128 x 64 OLED dot matrix display, digital / graphic display; highlight no perspective;
- Intuitive and rich display information, can display all the parameters and graphics;
- Compatible with ISO, DIN, ANSI, JIS national standards;
- Residual quantity icon, prompting the user to charge;
- Continuous working time: more than 20 hours.
- Real-time clock settings and display, convenient data recording and storage.
- With automatic dormancy, automatic shutdown and power saving function
- Reliable control motor to go dead circuit and software design
- Measurement information display, menu prompt information, false information and switch machine and other tips that information;
- Can be connected to a computer and printer;
- Optional different sensor, measuring platform, mini printer, extension rod and other accessories.



- Plastic shell, inspired by “TRANSFORMERS” stylish design, portable, high reliability.
- High price performance
- Bluetooth function
- Can acquire, manage data by APP.






III. Technical Parameters






Name		Content
Measurement Range	The Z axis (vertical)	160 μ m
	The X axis (horizontal)	17.5mm
Resolution ratio	The Z axis (vertical)	0.01 μ m/ \pm 20 μ m
		0.02 μ m/ \pm 40 μ m
		0.04 μ m/ \pm 80 μ m
Measurement item	Parameter	Ra Rz==Ry(JIS) Rq Rt==Rmax Rp Rv R3z R3y Rz(JIS) Rs Rsk Rku Rsm Rmr
	Standard	ISO,ANSI,DIN,JIS
	Graphic	Material ratio curve
Filter		RC,PC-RC,Gauss,D-P
The sampling length(<i>l</i> r)		0.25,0.8,2.5mm
Assessment length (<i>l</i> n)		$l_n = l_r \times n$ n=1~5
Sensor	Principle	The displacement differential inductance
	Stylus	Natural Diamond, 90 \overrightarrow{OB} cone angle, 5 μ m tip radius
	Force	<4mN
	Skid	Ruby,Longitudinal radius 40mm
	Traversing speed	<i>l</i> r=0.25, <i>V</i> t=0.135mm/s
<i>l</i> r=0.8, <i>V</i> t=0.5mm/s		
<i>l</i> r=2.5, <i>V</i> t=1mm/s		
Return, <i>V</i> t=1mm/s		
Accuracy		No more than \pm 10%
Repeatability		No more than 6%
Power supply		Built-in3.7VLithium ion battery,Charger :DC5V,800mA/3hour
Working Time		More than 20 hours
Outline dimension L*W*H		141*55*40mm
Weight		About 400g
Working Environment		Temperature:- 20 $^{\circ}$ C ~ 40 $^{\circ}$ C Humidity:< 90% RH
Store and Transportation		Temperature:- 40 $^{\circ}$ C ~60 $^{\circ}$ C Humidity:< 90% RH

IV. Standard Configuration

Number	Name	Quantity	Remarks
1	Main Unit	1	
2	Sensor	1	Precision parts
3	Adjustable Support	1	
4	Calibration block	1	
5	Block bracket	1	
6	Charger	1	
7	USB charging cable	1	
8	Operating manual	1	
9	Certificate	1	
10	Guarantee card	1	
11	Instrument container	1	
12	Software	1	

V. Optional configuration

	JITAI55 -Extension rod. Used to extend length of sensor when testing deep hole (55mm)
	JITAI90 -Right angle measuring mechanism.
	JITAI100 -standard sensor, plane & shaft & inner surface of hole >6mm, depth <22mm
	JITAI120 -small hole sensor, cylindrical & plane & inner surface of hole >2 mm, depth <9mm
	JITAI110 -sensor for curved surface & plane, cylindrical, curvature radius >3 mm

	<p>JITAI131 -sensor for deep groove, cylindrical & plane & groove width>3 mm, depth<10mm</p>
	<p>JITAI520 -Metal(AI)working platform, elevating, convenient and stable for test process.</p>
	<p>JITAI620 -Marble substrate working platform, elevating, V groove, high accuracy to test tiny work piece.</p>
	<p>Roughness comparison block High quality comparison block of surface roughness Strict anti-rust treatment process 27 comparison block/set</p>
	<p>Mini Pinter External printer</p>

