Tech Metrology Surface Roughness Tester

Overview

Precision Roughness Tester is a high-precision surface smoothness testing instrument that can measure the roughness of various machined parts, including flat surfaces, inclined surfaces, cylindrical surfaces, curved surfaces, small holes, grooves, and axles.

Main features

- Mechatronics integrated design, small size, light weight, and easy to use;
- Adopting DSP chips for control and data processing, with fast speed and low power consumption;
- Compatible with multiple national standards such as ISO, DIN, ANSI, and JIS;
- Continuous working time greater than 20 hours
- Large capacity data storage, capable of storing 100 sets of raw data and waveforms.
- Real time clock setting and display, convenient for data recording and storage.
- Equipped with power saving functions such as automatic sleep and automatic shutdown
- Reliable anti motor stalling circuit and software design
- Display various prompt instructions such as measurement information, menu prompt information, error information, and on/off machine information;
- Chinese/English language selection;
- Can connect computers and printers;
- Print all parameters or any parameters set by the user.
- Optional Bluetooth function.
- Optional accessories such as curved sensors, small hole sensors, measuring platforms, sensor sheaths, extension rods, etc.

Technical Parameter

name		**content**
measure Range	Z-axis (Vertical) X-axis (Horizontal)	160μm 17.5mm
resolution ratio	Z-axis (Vertical)	0. 01μm/±20μm 0. 02μm/±40μm 0. 04μm/±80μm

measure project	parameter	Ra Rz==Ry(JIS) Rq Rt==Rmax Rp Rv R3z R3y Rz(JIS) Rs Rsk Rku Rsm Rmr
	standard	ISO,ANSI,DIN,JIS
	graphical	Support curve, roughness profile, direct profile
wave filter		RC,PC-RC,Gauss,D-P
Sampling length(*l*r)		0.25,0.8,2.5mm
evaluation length（*l*n）		*L*n= *l*r×n n=1~5
sensor	measuring principle	Displacement differential inductance
	Stylus	Natural diamond, 90 cone angle, 5 μ M Needle tip radius
	dynamometry	<4mN
	Guide head	Hard alloy, sliding direction radius 40mm
	Taxiing speed	*l*r=0.25, Vt=0.135mm/s *l*r=0.8, Vt=0. 5mm/s *l*r=2. 5, Vt=1mm/s Vt=1mm/s
Indication error		not more than±10%
Indication variability		not more than6%
power supply		Built in lithium-ion rechargeable battery, charged with a DC5V, 800mA charger
Overall dimensions		158×63.5x46mm
weight		about300g
work environment		temperature：- 20℃ ~ 40℃ humidity：< 90% RH
Storage and transportation environment		temperature：- 40℃ ~ 60℃ humidity：< 90% RH

Measuring range

Parameters	**Display Range**

Ra,Rq	0.005μm ~ 16μm
Rz,R3z,Ry,Rt,Rp,Rm	0.02μm ~ 160μm
Sk	0 ~ 100%
S,Sm	1mm
tp	0 ~ 100%

Standard configuration：

·Roughness meter host	1
·Standard sensor	1
·Multi line standard sample block	1
·Adjustable support	1
·Power adapter	1
·Instructions	1
·Certificate	1
·Warranty card	1