TR 220 Surface Roughness Meter

PRODUCT INTRODUCTION

TR 220 is a portable surface roughness tester with mechatronic design, built-inhigh-performance ARM processor, and compatible with many standards such as ISO, DIN, ANSI, JIS, etc. It has the characteristics of high measurement accuracy, wide measurement range, easy operation, portable and stable operation. And it has a large data storage capacity, low power consumption, automatic sleep etc. The instrument is a sensor host integrated instrument, built-inhigh capacity polymer lithium battery, can achieve the data measurement, display, storage, Bluetooth printing and other functions. The instrument is available with optional accessories such as curved surface sensor, small hole sensor, deep groove sensor and measuring platform. It is widely used for surface roughness inspection in many fields such as automobile manufacturing, machining, metal processing equipment, printing and packaging, mould casting etc.

FEATURES

- Large range, multi-parameter, 14 roughness parameters can be measured: Ra, Rz=Ry (JIS), Rq, Rt=Rmax, Rp, Rv, R3z, R3y, RzJIS, Rs, Rsk, Rku, Rsm, Rmr;
- Mechatronic design, small size, light weight, easy to carry, easy to operate;
- Using stylus with half-surrounded guide improves the measuring range;
- Gauss. D_P.RC.PC_RC Filter Method;
- Compatible with ISO, DIN, ANSI, JIS standards;
- The display is full of information, intuitive, and can display all parameters and graphs;
- The display LCD adopts the popular 2.0' IPS display with high brightness and no dead space, suitable for various situations;
- Adopting 1000mAh lithium ion rechargeable battery, it can work for a long time without effecting performance
- Large capacity data storage, can store 500 sets of raw data and waveforms;
- The automatic shutdown function and low-power hardware and software design make the instrument work for a longtime, which is suitable for all kinds of on-site use;
- Can connect to a dedicated Bluetooth printer to print measurement reports in real time;
- The sensor has a protection device that effectively protects the sensor stylus and ensures measurement accuracy;
- Using high performance ARM microprocessor for data calculation and processing, adopting high-precision op-amps and ADC, greatly improving the measurement accuracy and calculation velocity;
- Support waveform display and rate curve.

TECHNICAL PARAMETERS

Particulars			
Dettection principle	inductive	Maximum drive travel	≤ 17.5mm
Measuring range	320 μm	Maximum range	Ra, Rq: 0.005 μm ~ 320 μm; Rz, Ry, Rt, Rp, Rm: 0.02 μm ~ 320 μm; Rsm, Rs: 1mm; Rmr: 0~100%
Needle tip radius	5 μm	Accuracy	0.001 μm;
Needle tip material	Diamond	Value error	≤±8%
Measured force	≤4mN	Value Variability	≤ 5%
Needle stylus angle	90°	Power supply	Built-in- lithinium-ion rechargeable battery / external power adapter
Leader longitudinal radius	45mm	Data output	Bluetooth/USB
Parameters meausrement	Ra, Rq, Rz, Rt, Rp, Rv, RS, RSm, RsK, Rku, RPc, Ry, Rmax. R3z		
Sample length	0.25mm, 0.80mm, 2.50mm		
Evaluation length	IL~5L optional (L is the sample length)		
Overall size	156mm X 55mm X 46.5mm		
Instrument weigth	≤ 398 g		
Work environment	Temperature: -20°C ~ 40°C; Relative humidity: <90%, no vibration, no corrosive medium around		
Optional accessories	Curved surface sensor, small hole sensors, deep groove sensors, extension rods, Bluetooth printers, measuring platforms		

CONFIGURATION LIST

Sr. No		Quantity
1	Roughness tester host	1
2	Sensor case	1
3	Standard Sensor	1
4	Data cable (charging cable)	1
5	Roughness standard test block	1
6	5V/2A Charger	1
7	Manual	1
8	Certificate	1
9	Instrument box	1