

Surface Roughness Tester



SRT-6210

Model: SRT-6210 (Functional Type)
SRT-6200 (Basic Type)

Applications

Widely used in production site to measure surface roughness of various machinery-processed parts, calculate corresponding parameters according to selected measuring conditions and clearly display all measurement parameters.

Principle

When measuring the roughness of a surface, the sensor is placed on the surface and then uniformly slides along the surface by driving the mechanism inside the tester. The sensor gets the surface roughness by the sharp built-in probe. This roughness causes displacement of the probe which results in change of inductive amount of induction coils so as to generate analogue signal, which is in proportion to the surface roughness at output end of phase-sensitive rectifier. The exclusive DSP processes and calculates and then outputs the measurement results on LCD.

Features

- * Be compatible with standards of ISO, DIN, ANSI and JIS.
- * Small in size, light in weight and easy to use.
- * Highly sophisticated inductance sensor.
- * SRT-6210 can measure parameters of: Ra, Rz, Rq, Rt.
With Four wave filtering methods : RC, PC-RC, GAUSS and D-P. Can memorize 7 groups of measurement results and measuring conditions for later use or download to PC.
- * SRT-6200 can measure parameters of: Ra, Rz.
- * Built-in lithium ion rechargeable battery and control circuit with high capacity.
- * Manual or automatic power off. Metric /Imperial.
- * Use RS-232 data output to connect with PC.
- * Provide Bluetooth data output choice.



SRT6200

Specifications

| Model | SRT-6210 | SRT-6200 | |
|------------------------------|---|--|--------------|
| Standards | GB/T6062, ISO4287, DIN4768, JIS B, ANSI46.1 | | |
| Parameters | Ra, Rq, Rz, Rt | Ra, Rz | |
| Measuring Range | Ra, Rq: 0.005-16.00µm / 0.020-629.9µinch Rz, Rt: 0.020-160.0µm / 0.078-6299µinch | Ra: 0.05-10.00µm / 1.000-400.0µinch Rz: 0.020-100.0µm / 0.780-4000µinch | |
| Accuracy | ≤ ±10% | | |
| Fluctuation of Display Value | ≤ 6% | | |
| Resolution | 0.001 / 0.01 / 0.1 | | |
| Sensor | Radius of Probe Pin | 5µm 10µm | |
| | Material of Probe Pin | Diamond | |
| | Measurement Force of Probe | 4mN (0.4gf) | 16mN (1.6gf) |
| | Probe Angle | 90° | |
| | Vertical Radius of Guiding Head | 48mm | |
| | Maximum Driving Stroke | 17.5mm / 0.7inch | |
| | Cutoff length (l) | 0.25mm, 0.8mm, 2.5mm | |
| Driving Speed | Sampling | When Length = 0.25 mm, Vt = 0.135 mm/s When Length = 0.8 mm, Vt = 0.5 mm/s When Length = 2.5 mm, Vt = 1 mm/s | |
| | Returning | Vt = 1 mm/s | |
| | Profile Digital Filter | RC, PC-RC, GAUSS, D-P | |
| Evaluation Length | 1-5 L Optional | | |
| Data Memorize | 7 Groups | — | |
| Operating Conditions | Temp.: 0-50°C | Humidity: <80%RH | |
| Power Supply | Built-in Rechargeable Li-ion Battery | | |
| Dimensions | 140x52x48 mm | | |
| Weight | 420g | | |

| Standard Accessories | Remarks |
|-------------------------------|---------|
| Main Unit | ✓ |
| Standard Sensor SRP-100 | ✓ |
| Standard Sample Plate SSP-100 | ✓ |
| Small Screwdriver | ✓ |
| Power Adapter | ✓ |
| Carrying Case | B09 |
| Operation Manual | ✓ |

| Optional Accessories | Remarks |
|---------------------------------|---------|
| Extension Rod SER-150 | ✓ |
| Groove Stylus SRP-110 | ✓ |
| Curvature Probe SRP-120 | ✓ |
| Measurement Stand SRS-1 | ✓ |
| RS-232C Cable with Software | ✓ |
| Bluetooth Adapter with Software | ✓ |



Probes

| Model & Name | Applications | Structure Diagram |
|-------------------------|---|-------------------|
| SRP-100 Standard Sensor | Used for roughness tests on plane surface, shafts and in bores from 5.5 mm diameter. Maximum bore depth 22mm | |
| SRP-110 Groove Stylus | used to measure the surface roughness of deep groove, greater than 5 mm in width, less than 9.5 mm in depth; or the pedestal seat less than 9.5 mm in height. | |
| SRP-120 Curvature Probe | used to measure surface roughness of curved workpiece larger than 3 mm in curvature radius | |