



## SURFACE ROUGHNESS TESTER

This instrument is compatible with four standards of site to measure surface roughness of various machinery-processed parts, calculate corresponding and clearly display all measurement parameters. 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 by the sharp built-in-probe. This roughness cause 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 then outputs the measurement results on LCD



- *VALUE*
- *VERSATILITY*
- *PERFORMANCE*

**BSRT-6210**

**TECHNICAL SPECIFICATION: -**

|                                     |   |
|-------------------------------------|---|
| <b>MODEL</b>                        | <b>BSRT-6210</b>  |
| <b>Display</b>                      | <b>4 digits, 10 mm LCD, with blue backlight</b>   |
| <b>Parameters</b>                   | <b>Ra, Rz, Rq, Rt</b>   |
| <b>Measuring Range</b>              | <b>Ra, Rq: 0.005-16.00um/0.020-629.9uinch<br/>Rz,Rt: 0.020-160.0um/0.780-6299uinch</b>  |
| <b>Accuracy</b>                     | <b>≤±10%</b>  |
| <b>Fluctuation of display value</b> | <b>Not more than 6%</b>   |
| <b>Sensor</b>                       | <b>Test Principle: Inductance type<br/>Radius of Probe Pin: 5um<br/>Material of Probe Pin: Diamond<br/>Dynamo-measurement of Probe: 4mN(0.4gf)<br/>Probe Angle: 90°<br/>Vertical Radius of Guiding Head: 48mm</b> |
| <b>Maximum driving stroke</b>       | <b>17.5mm/0.7inch</b>   |
| <b>Cutoff length (l)</b>            | <b>0.25mm / 0.8mm / 2.5mm (optional)</b>  |
| <b>Evaluation length</b>            | <b>5L</b>   |
| <b>Driving speed</b>                | <b>sampling length = 0.25mm Vt=0.135mm/s<br/>sampling length = 0.8mm Vt=0.5mm/s<br/>sampling length = 2.5mm Vt=1mm/s<br/>returning Vt=1mm/s</b>   |
| <b>Profile digital filter</b>       | <b>Filtered Profile: RC<br/>Filtered Profile: PC-RC<br/>Filtered Profile: Gauss<br/>Non-Filtered Profile: D-P</b>   |
| <b>Resolution</b>                   | <b>0.001µm if reading &lt;10µm<br/>0.01µm if 10µm≤reading&lt;100µm<br/>0.1µm if reading ≥100µm</b>  |
| <b>Power Li-ion battery</b>         | <b>rechargeable</b>   |
| <b>Operating conditions</b>         | <b>Temp. 0-50°C</b>   |
| <b>Size</b>                         | <b>140x57x48 mm (5.5x2.2x1.9 inch)</b>  |
| <b>Weight</b>                       | <b>about 420 g</b>  |