



SURFACE ROUGHNESS TESTER ART6210 / ART6200

1. FEATURES

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 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.

- * Multiple parameter measurement: Ra, Rz, Rq, Rt
- * Highly sophisticated inductance sensor
- * Four wave filtering methods : RC, PC-RC, GAUSS and D-P
- * Built-in lithium ion rechargeable battery and control circuit with high capacity
- * Small in size, light in weight and easy to use
- * Can communicate with PC computer for statistics, printing and analyzing by the optional cable and the software for RS232C interface.
- * Manual or automatic shut down. The tester can be switched off by pressing the Power key at any time. On the other hand, the tester will power itself off about 5 minutes after the last key operation.
- * The tester can memorize 7 groups of measurement results and measuring conditions for later use or download to PC.
- * Metric /Imperial Conversion

2. SPECIFICATIONS

Display: 4 digits, 10 mm LCD, with blue backlight

Parameters: Ra, Rz, Rq, Rt **(ART6200 Parameter: Ra, Rz)**

Measuring Range: Ra, Rq: 0.005-16.00um/0.020-629.9uinch

Rz, Rt: 0.020-160.0um/0.780-6299uinch

Accuracy: $\leq \pm 10\%$

Fluctuation of display value: Not more than 6%

Sensor :



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Test Principle: Inductance type
 Radius of Probe Pin: 5um
 Material of Probe Pin: Diamond
 Dynamo-measurement of Probe: 4mN(0.4gf)
 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 optional
 Evaluation length: 5l
 Driving speed:

sampling length = 0.25mm Vt=0.135mm/s
 sampling length = 0.8mm Vt=0.5mm/s
 sampling length = 2.5mm Vt=1mm/s
 returning Vt=1mm/s

Profile digital filter

Filtered Profile: RC
 Filtered Profile: PC-RC
 Filtered Profile: Gauss
 Non-Filtered Profile: D-P

Resolution : .001μm if reading < 10μm 0.01μm
 if 10μm ≤ reading < 100μm 0.1μm if reading ≥ 100μm





Evaluation length : 5 cut-off

Power Li-ion battery: rechargeable

Operating conditions: Temp. 0~50°C
 Humidity <80%

Size: 140x57x48 mm (5.5x2.2x1.9 inch)

Weight: about 420 g

			
Standard stylus	Groove stylus	Curvature probe	Extension rod