

Surface Roughness Tester



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.



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: 0.005~16.00 μ m / 0.020~629.9 μ inch Rz, Rt: 0.020~160.0 μ m / 0.078~6299 μ inch	Ra: 0.05~10.00 μ m / 1.000~400.0 μ inch Rz: 0.020~100.0 μ m / 0.780~4000 μ inch	
Accuracy	$\leq \pm 10\%$		
Fluctuation of Display Value	$\leq 6\%$		
Resolution	0.001 / 0.01 / 0.1		
Sensor	Radius of Probe Pin	5 μ m	10 μ m
	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	
	Returning	When Length = 2.5 mm, 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	