MICROSURF 10A

Compact

Measuring principle

This instrument has a sensor tip, using inductance type principle for measuring roughness. It is traversed over the sample, using a motor assembly, and its roughness will cause the sensor to be displaced. This displacement causes inductance of the sensor inductor to change and produces an analog signal proportional to the surface roughness.

Applications

Roughness is an important parameter when trying to find out whether a surface is suitable for a certain purpose. Rough surfaces often wear out more quickly than smoother surfaces. Rougher surfaces are normally more vulnerable to corrosion and cracks, but they can also aid in adhesion. A roughness tester is used to quickly and accurately determine the surface texture or surface roughness of a material. Few industries include automobile manufacturing and spare parts processing, machinery parts processing, metal processing equipment and accessories, surface engineering treatment, mold casting and precision manufacturing.



Features

- Multi-parameter measurement of Ra, Rq, Rz and Rt.
- Backlit LCD display with indication for proper probe alignment.
- Data storage and recall.
- Metric/Imperial conversion.
- Compact and low volume structure for convenient storage.

Technical Specifications

Model	*Metrix+* Microsurf 10A
Standards	ISO 4287 International standard, DIN 4768 German standard, JISB 601 Japanese standard, ANSI B46.1 American standard
Measuring range	Ra, Rq : 0.005 ~ 16.00 um / 0.020 ~ 629.9 uinch Rz, Rt : 0.020 ~ 160.0 um / 0.078 ~ 6299 uinch
Accuracy	< ± 10%
Resolution	0.001um when reading <10um 0.01um when reading >= 10um and <100um 0.1um when reading >= 100um
Fluctuation of display value	<=6%

Profile Digital Filter	Filter contour : RC, PC-RC, Gauss Non-filter contour : D-P	
Sensor	Test Principle	Induction type
	Radius of probe pin	10um default 2um
	Material of probe pin	Diamond
	Measurement force of probe	16mN(1.6gf) for 10um and 0.75mN(0.075gf) for 2um
	Probe angle	90°
	Vertical radius of guiding head	48mm
	Maximum driving stroke	17.5mm / 0.7inch
	Cut off length	0.25mm / 0.8mm / 2.5mm
Driving speed	When measuring	Vt = 0.135mm/s if sampling length = 0.25mm
		Vt = 0.5mm/s if sampling length = 0.8mm
		Vt = 1mm/s if sampling length = 2.5mm
	During return	Vt = 1mm/s
Probe measuring range	±80um	
Evaluation length	1 ~ 5L selectable	
Power	Li-ion rechargeable battery	
Working conditions	Temperature : 0 ~ 50°C ; Humidity : <85%	
Standard accessories	Main unit, probe, standard sample plate, charger with adapter, adjustable leg, sheath of sensor, operational manual	
Optional accessories	PC interface, adaptor sleeve(extension rod), deep groove sensor	

Model and Specifications subject to change without notice.