

## TIME3221 Portable Surface Roughness Tester



### Brief introduction:

- Conform to roughness standards: ISO1997, ANSI, DIN and JIS2001
- Roughness parameters: Ra, Rp, Rv, Rt, Rz, Rq, Rsk, Rku, Rc, R<sub>Pc</sub>, R<sub>Sm</sub>, R<sub>mr(c)</sub>, tp, R<sub>mr</sub>, R<sub>pm</sub>, Rz1max, RzJIS, R<sub>max</sub>, H<sub>tp</sub>, R<sub>dc</sub>, R<sub>Δq</sub>, R<sub>da</sub>, Pa, Pp, Pv, Pt, Pz, Pq, Psk, Pku, Pc, P<sub>Sm</sub>, P<sub>mr(c)</sub>, P<sub>mr</sub>, Pz1max, PzJIS, P<sub>dc</sub>, P<sub>Δq</sub>, Rk, Rpk, Rvk, Mr1, Mr2, A1, A2
- External pickup/stylus: high accuracy inductance pickup
- Small pickup connected with main unit by 43" long flexible cable can go into narrow or low spaces for measurement
- Large measuring range: 400 μm (15748 μinch)
- Larger selection of cutoff length for extra smooth and rough surface.
- High-resolution TFT LCD displays parameters and profiles
- Touch screen for easy operation
- Flexible magnetic base can hold driver/pick up for measuring odd shaped parts
- Optional mini printer to print out parameter readings and profiles
- Built-in RS232 interface and USB interface
- Shut off automatically or manually

## Specifications:

Sensor, stylus	Inductance type
Measurement range	400 $\mu$ m
Stylus tip radius	5 $\mu$ m
Stylus tip material	Diamond
Driver / pickup length	Driver body 118mm Stylus extends 30mm without extension
Measuring force	4mN
Stylus tip angle	90°
Radius of skid curvature	45mm
Maximum drive range	19mm/0.748inch
Traversing speed	Cut off length = 0.08 mm Vt=0.25 mm/s Cut off length = 0.25 mm Vt=0.25mm/s Cut off length = 0.8 mm Vt=0.5 mm/s Cut off length=2.5mm Vt=1mm/s Returning V=1mm/s
Accuracy	$\leq \pm 10\%$
Repeatability	$\leq 6\%$
Cut-off length	0.08mm, 0.25mm, 0.8mm, 2.5mm selectable
Evaluation length	(1 – 5) L selectable
Measuring range and resolution	Automatic (range), 0.001 $\mu$ m, 0.008 $\mu$ m (resolution)
	$\pm 50\mu$ m (range), 0.001 $\mu$ m (resolution)
	$\pm 200\mu$ m(range), 0.008 $\mu$ m (resolution)
Cable to connect driver	1m (3.3 ft)
Power	Built-in Li battery
Power adapter	Input: 100 V-240VAC, 50/60Hz, output: 9V, 3A
Working environment	Temperature: 32°F-104°F (0°C - 40°C), Humidity: < 90% RH
Dimensions	155.4×75×53mm (main unit), 120.5×25.5×28.5mm (Driver)
Weight	App. 580g (main unit), 165g (Driver)

