



Surface Roughness Tester TIME®3200

The TIME®3200 is a portable, high-precision roughness tester with a wide measuring range for roughness measurement on metallic and non-metallic surfaces. Its laterally positioned pickup allows precise measurements on inner surfaces of bores and in grooves, even at hard-to-reach locations. The device displays up to 13 roughness parameters and is easy to operate via a selection menu.

Features

- Easy-to-use selection menu
- Display of 13 roughness parameters
- Filtering methods: RC, PC-RC, GAUSS, D-P
- Cut-off length: 0.25 / 0.8 / 2.5 mm
- Visualization of the roughness profile and the material ratio curve on the display
- Display of the pickup position
- Various pickups for measurements in bores, openings and grooves
- RS232 interface
- Selectable languages: German, English

Scope of Delivery

- Main unit TIME®3200
- Standard micro pickup TS-100
- Roughness standard Ra
- Protective cap for pickup
- Standard steel bracket
- Charger
- Instruction manual
- Carrying case

Technical Data

Parameter	TIME®3200
Roughness parameters	Ra, Rz, Ry, Rq, Rt, Rp, Rmax, Rv, R3z, RS, RSm, RSk, Rmr; switchable µm/µinch
Measurement range	Ra, Rq: 0.005–16 µm; Rz, Ry, Rp, Rt, R3z: 0.02–160 µm; RSm, RS: 2–4,000 µm; Tp: 1–100 % (%Ry)
Resolution	0.001 µm / 0.04 µinch
Cut-off length	0.25 / 0.8 / 2.5 mm / Auto
Evaluation length Ln	1–5 cut-off (selectable)
Tracing length	1–5 cut-off + 2 cut-off (selectable)
Digital filter	RC, PC-RC, GAUSS, D-P
Pickup	Standard model TS-100, inductive, diamond stylus tip radius 5 µm, stylus angle 90°
Pickup measuring range	±20 / ±40 / ±80 µm
Bores	from 6.0 mm, depth 15 mm (standard pickup TS-100)
Profiles	Primary profile (P), roughness profile (R), TP curve (material ratio Mr)
Profile magnification	Vv: 200x–20,000x; Vh: 20x, 50x, 200x
Tolerance	≤ ±10 %
Repeatability	≤ 6 %
Functions	Display of stylus position, battery status indicator, direct printing, LCD brightness adjustment, auto power-off after 5 min with data saving, calibration via software
Data output	RS232; printer TA230 or PC, Dataview software
Display	128 × 64 graphic LCD with backlight
Power	Li-ion battery 1000 mAh, rechargeable, charger 220 V, 50 Hz, capacity for 3000 measurements
Working environment	0–40 °C, ≤ 80 % RH
Standard	ISO, DIN, ANSI, JIS (selectable in menu)
Dimensions (L × W × H)	140 × 52 × 48 mm (device without pickup)
Weight	440 g

Subject to technical changes.