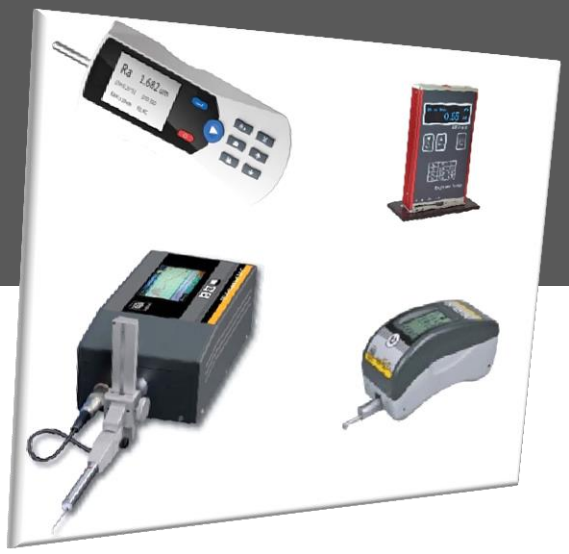
NauMetrics

Precision Measuring Instruments



Portable Roughness Testers

NauMetrics PMI
Postbus 540
7550 AM Hengelo
T: 0031 (0) 74 3490022
F: 0031 (0) 84 0037042
info@naumetrics.nl
www.naumetrics.nl

Inhoudsopgave:

Portable Hardnesstesters

Portable Ruwheidsmeter KR-100

Features:

- Pocket-size & economically price;
- Using the high speed microprocessor DSP;
- Using the OLED screen, bright and without visual angle
- USB Charging port
- Large measuring range suitable for most materials
- Measures flat, outer cylinder and sloping surface
- Both Ra and Rz parameters in one instrument
- Works on 3.7V rechargeable lithium-battery, work while charging
- Real time battery indicator

Technical Specifications:

Roughness parameter	Ra,Rz,Rq,Rt
Tracing length	6mm
Tracing speed	1.0mm/sec
Cut-off lengths	0.25mm/0.8mm/2.5mm
Evaluation length	1.25mm/4.0mm
Measuring range	Ra: 0.05-10.0μm Rz: 0.1-50μm
Accuracy	±15%
Repeatability	<12%
Radius and angle of the stylus point	Diamond,Radius : 10μm±1μm Angle: 90°(+5°or -10°)
Power supply	3.7V Li-ion battery
Recharging time	3 hours
Operating temperature	-20-40 ℃
Relative humidity	<90%
Dimensions (L×W×H)	106×70×24mm
Weight	200g

Standard delivery:

- **Main unit KR-100**
- **Specimen Ra**
- **Charger and USB cable**
- **Instruction Manual**

NauMetrics
Precision Measuring Instruments

Portable Ruwheidsmeter KR-200

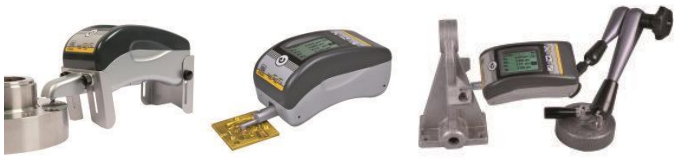
Features:

- Combination of aesthetics and technology;
- **ARM-cored control** and data processing to achieve high test speed;
- Wide range, multiple parameters **Ra,Rz,Rq,Rt,Rp,Rv,R3z,R3y,RzJIS,Rsk,Rku,Rsm,Rmr**;
- 128x64 FSTN LCD, Ultra-low power consumption, plenty of display information;
- Available **Blue-tooth** wireless printing;
- Optional PC software with perfect data base function;
- **USB Storage** max. 8GB;
- Embedded RTC and calendar;
- **Integrated transducer**, made of stainless steel, High quality and performance, Durable; Built-in Li-ion Battery, Intelligent battery monitoring,;
- Continuous working for more than **10 hours**;
- **USB communication port** to combine with PC;
- Reliable software of electric motor driving;
- Compatible with **ISO, DIN, ANSI, JIS** standards.

SENSOR	
Item	Description
Principle	Electric Inductor Type
Range	160um
Stylus Material	Diamond
Contact Force	4mN (0.4gf)
Stylus Angle	90 degree
Guide Vertical Radius Specification	45mm
MAIN UNIT	
Max. Drive Travel Length	17.5mm/0.7inch
Error	< ± 10%
Result Variation	< 6%
Measuring Profile	Roughness, Waviness, Primitive profile
Parameters	Ra (0.005um – 16um), Rz (0.02um – 160um), Rq,Rt,Rp,Rv,R3z,RzJIS,RsK,Rku,Rsm,Rmr
Filter	RC, PCRC, Gauss, ISO13565
Sampling Length (L)	0.25mm, 0.8mm, 2.5mm, 8mm
Evaluation Length (L)	(1-5)L
Data Storage Capacity	2M+2G Byte (standard),max. 8GB
Communication/Interface	USB 2.0
Power	Built-in Li-ion Battery
Dimensions	140mmx55mmx47mm
Net Weight	400g

Standard		
Main unit KR-200	Standard Transducer	Standard specimen Ra
USB cable	Charger/Adapter	SD Card 2GB
Instruction Manual	Test Support	Steel Support
Optional		
Curve Sensor	Small hole Sensor	Measurement Platform
Sensor protecting cover		

TESA RugoSurf 20



RUGOSURF 20 – Portable roughness tester designed for the production workshop
• Measuring range of 400 µm in the Z axis
• Sturdy metallic base
• IP 67 membrane keyboard
• 15 most commonly used roughness parameters
• 2'' LCD display, parameters and roughness profile given after each measurement
• Easy to use

Portable roughness gauge, robust and versatile. Well suited for production environments or inspection of inward goods. Measures roughness parameters according to ISO 4287:1997/JIS B0601:2001, DIN and ISO 12085:1998 (MOTIF or CNOMO). Measuring range in the Z-axis of 400 µm (6300 µin). 15 roughness parameters. Each parameter can be activated individually or not. Possible tolerancing of parameter values. Direct display: - of all measured values, with tolerance levels diplay, - of R roughness profile - the Bearing Area Curve (BAC) - the Amplitude Distribution Curve (ADC).
2" Black&White LCD screen, high contrast for optimum visual representation. Flexible autonomy through mains adapter or battery pack. Storage of the measured parameters. Multilingual menu options. USB cable connection (optional). Direct printing to a dot matrix printer (optional). Measurement transfer, database creation and reporting available using TESA RUGOSOFT software tool (optional). Access to narrow and hard to reach locations possible through 100 mm probe extension (optional).
Note: RUGOSURF 20 supplied with probe R = 2µm (product number S69900016) available on request.

Measuring span: 400 µm (0.0157 in) on Z axis, 16 mm (0.63 in) on X axis
Roughness parameters: Ra, Rq, Rt, Rz, Rc,Rsm, Rmr, Pt, Pmr; Rmax; RPc, PPc; R, Rx, AR

ISO 3274 (Cl.1)

-10°C to +50°C

10°C to 40°C

Plastic transport case

Declaration of conformity

USB

122 x 60 x 62 mm (without probe)

650 g

TESA RugoSurf 10G

RUGOSURF 10G - Portable Roughness gauge
• range 400 microns in Z
• 3 horizontal measuring positions to -90 °, 0 °, 90 °
• Measurement of roughness parameter of the primary profile in addition to the roughness parameter
• 31 roughness parameters in total
• TFT color graphic display 2'' for optimal reading
• Display of parameters and roughness profiles R and P after each measurement
• Membrane keyboard IP 67

Portable, versatile gauge unit with compact design, well suited for use in goods inwards inspection, production or the measurement laboratory. 3 horizontal measuring positions of probe 0°, -90° and +90°. Measures roughness parameters according to standards: ISO 4287 JIS B0601 DIN and ISO 12085 (MOTIF or CNOMO). TFT 2" graphic display for optimum visual representation of any measured parameters and workpiece profiles. Direct displaying of all measured values and computed profiles. 31 roughness parameters available. Flexible autonomy through mains adapter or battery pack. Data storage, printing or transfer to a PC of a maximum of 999 measured results. Possible tolerancing of all parameter values. Multilingual menu options. USB data output enabling a direct connection to a matrix printer unit or a PC equipped with RUGOSOFT 10 software (both are optional).

Measuring span: 400 µm (6300 µin) on Z axis, 16 mm (0.63 in) on X axis
Resolution in µm: 0,001 µm (0.1 µin)
Roughness parameters: 31 parameters: Ra, Rq (Rms), Rt, Rz, Rp, Rc, Rv, Rsm, Rdc; Pa, Pq, Pt, Pp, Pc, Pv, Psm, Rdc; RPc, PPc; Rk, Rpk, Pvk, Mr1, Mr2; Pt, R, Rx, AR; R3, R3zm, Rmax;

ISO 3274 (Cl.1)

-10°C to +50°C

10°C to 40°C

Plastic transport case

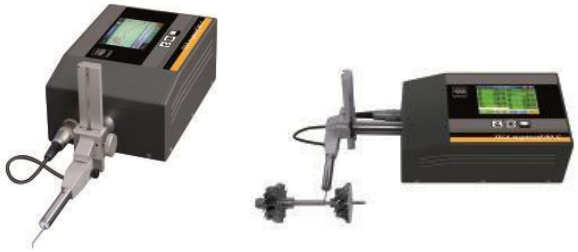
Declaration of conformity

USB

122 x 53 x 72 mm (without probe)

590g

TESA RugoSurf 90G



Compact, versatile and powerful roughness gauge
• 1000µm span in the Z axis
• Measuring range of 50 mm in the X axis
• W ripple profiles, P primary profile and R roughness profile measuring
• 3.5'' color touch screen for ease of use
• 3-position horizontal measurement at -90 °, 0 °, 90 °
• 49 roughness parameters • Special features of RUGOSURF 90G :
• Supplied with SB60/10 probe with removable pad: one single probe can be used to measure roughness or undulation
• RUGOSURF 90G can measure a components with a height of up to 90mm, thanks to a vertical positioning screw without any additional accessory
• With the PROFILE SET 2 mm (06960100) RUGOSURF 90G becomes a profile measurement instrument with a width of 2000 µm measuring in the Z axis (optional)!

Small-size, versatile roughness gauge with tactile colour screen providing maximum ease of use. Ideally suited for high-precision measurements on the shop floor or in the inspection laboratory. Tactile TFT 3.5" colour screen. Direct display of all measured values and computed profiles. Measuring span Z = 1000 µm (0.039 in) X = up to 50 mm Special 2 in 1 probe can measure with contact skid (roughness measurement) or without contact skid (measure of undulation). Vertical adjusting screw for probe positioning up to a height of 90 mm without the need of an accessory. Tolerancing of all parameters possible. USB ditial output for transfer of measured values to a PC with TESA MEASUREMENT STUDIO software (optional). Unique in its category, this instrument can also do profile measurement (Z = 2 mm) if used with PROFIL SET 2 mm (optional). Measures roughness parameters according to standards: - ISO 4287 - 12085 (CNOMO) - ISO 13565 - DIN 4776 - JIS B0601:2001 - ASME B46-2002.

Measuring span: Z Axis = 1000 µm (39370 µin); X Axis = 50 mm (1.969 in)
Resolution in µm: 0,001 µm (0.01 µin)
Roughness parameters: 48 parameters Ra, Rq, Rt, Rz, Rp, Rc, Rv, Rsm, Rdc, RPc, Pa, Pq, Pt, Pp, Pc, Pv, Psm, RPc, PPc, Wa, Wq, Wt, Wz, Wp, Wv, Wc, WSm, Wdc, WPc, Rk, Rpk, Pvk, Mr1, Mr2, Pt, R, Rx, AR, Wte, W, AW, Wte, W, AW, Wx, Rke, Rpke, Rvke, Rmax, R3z, R3zm

ISO 3274 (Cl.1)

-10°C to +50°C

10°C to 40°C

Plastic transport case

Declaration of conformity

USB

270 x 140 x 90 mm (without probe)

3kg