

SURFACE TESTER

PCE-RT 2000



- » **OLED display**
- » **Measures Ra, Rq, Rsm, Rsk, Rz, Rt, Rp, Rv, Rc**
- » **Numerical and graphical display of measured values**
- » **Micro USB cable**
- » **3 different cutoff wavelengths**
- » **PC software**
- » **Statistical functions**
- » **Battery operation**

The surface tester PCE-RT 2000 is used for accurate measurement of surface roughness. The surface tester can be used on all surfaces. The roughness with the roughness measuring device is precisely recorded via the piezo sensor. The surface tester measures in the ranges Ra, Rq, Rsm, Rsk, Rz, Rt, Rp, Rv, Rc and is therefore a universal roughness tester in quality assurance.

The surface tester is simply placed on the surface for measurement. During the measurement process, a probe is pulled over the surface and the surface tester displays the measured value on the large, OLED display. In addition to the numerical measured value display, the measuring profile can be graphically visualized. The surface tester PCE-RT 2000 is powered by a rechargeable battery. The charger of the surface tester is included in delivery. The surface tester has an automatic shut-off function for the battery care.

The surface tester PCE-RT 2000 has a Micro USB cable. The measuring device can be charged via this connection. Furthermore, the measurement data can be transmitted from the surface tester to the software. So it is possible to create a complete documentation of the measurement.

The average roughness depth Rz is the arithmetic mean of the largest single-order depths of several adjacent individual measurement sections.

Ra is the generally recognized and internationally applied roughness parameter.

Specification

Roughness	
Roughness value	Ra, Rq, Rc
Measuring range	0,005 ... 16 µm
Resolution	0,001 µm
Accuracy	<±10 %
Roughness	
Roughness value	Rz, Rt, Rp, Rv
Measuring range	0,02 ... 200 µm
Resolution	0,01 µm
Accuracy	<±10 %
Roughness	
Roughness value	Rsm
Measuring range	5 ... 1000 µm
Accuracy	<±10 %
Roughness	
Roughness value	Rsk
Measuring range	-1 ... +1

General technical data	
Repeat accuracy	<6 %
Measuring functions	Ra, Rz, Rq, Rt, Rsm, Rsk, Rp, Rv, Rc
Units	µm, pinch
Display type	OLED
Storage medium	Internal memory
Storage capacity	20 Values
Interface	Micro-USB
Standard(s)	ANSI B46.1/ASME B46.1, DIN EN ISO 4287, ASME B46.1
Sensor	inductive
Automatic power-off from...to	1 ... 30 min.
Cut-off wavelength	0.25 mm / 0.8 mm / 2.5 mm
Key	- Probe tip radius - 5 µm - Probe tip material - diamond, 90° angled - Probing speed: 0.135 mm/s at limit wavelength: 0.25 mm 0.5 mm/s at limit wavelength: 0.8 mm 1 mm/s at limit wavelength: 2.5 mm - Return speed: 1 mm/s
Maximum traverse distance	15 mm
Menu language	English, English (GB)
Protection class (device)	IP31
Power supply	3.7 V
Connector type	Device-europlug
(Rechargeable) battery	1 x 3,7 V internal , Lithium-ion polymer battery
Capacity	1500 mAh
Operating conditions	0 ... 50 °C , 10 ... 90 % RH
Storage conditions	0 ... 50 °C , 10 ... 90 % RH
Dimensions (L x W x H)	150 x 60 x 43 mm
Weight	370 g