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## Technical Roughness Tester PCE-RT 10

**Surface texture meter / measurement range covers Ra and Rz /  
LCD display with background lights / sensor made of a diamond / induction principle**

The surface texture meter PCE-RT 10 is a small, light device with simple navigation. Despite the fact that the device functions on a very complex and elaborate level, the measurement results can be gained easily and in a comfortable way. Due to its rugged design the device has a long lifetime. This device is calibrated on ISO, DIN, ABSI and JIS standards. The surface texture meter can be applied for various mechanical manufacturing processes as a controlling equipment. The device indicates all calculated measurement results on its LCD display any time. In order to measure the roughness of a surface, the sensor is to be placed onto that surface. Afterwards the sensor samples evenly the surface following its guide rail. Now the device will calculate the measuring values. Thus the indicated values are a result of the sensor's movement, while it is induced with electricity. The fast DSP processing supports quick measurements results, which are then shown on the surface texture meter's display.

- Ra and Rz measurement range
- Induction principle
- LCD display with background lights
- With threshold function
- Easy to transport
- Easy handling
- Diamond sensor
- Low fluctuation on display

### Technical Specifications of the Surface Texture Meter

#### Measurement range

Ra	0.05 ... 10 $\mu\text{m}$ / 1 ... 400 $\mu\text{inch}$
Rz	0.02 ... 100 $\mu\text{m}$ / 0.78 ... 40 $\mu\text{inch}$

**Measurement accuracy**

General	±10 %
Fluctuation on display	Max. 6 %

**Resolution**

measurement range < 10 μ	0.001 μ
measurement range < 100 μ	0.01 μ
measurement range ≥ 100 μm	0.1 μ

**Sensor**

Measuring type	Induction principle
Radius of sensor	10 μm
Material of sensor	Diamond
Measuring force of sensor	16 mN (1.6gf)
Sensor angle	90 °
Vertical radius of probe head	48 mm

**Measurement speed**

Sampling length: 0.25	Vt = 0.135 mm/s
Sampling length: 0.8	Vt = 0.5 mm/s
Sampling length: 2.5	Vt = 1 mm/s
Returning	Vt = 1 mm/s

**General Technical Specifications**

Maximum hub	2.5 mm / 0.5 inch
Limit of frequency length	0.25 mm / 0.8 mm / 2.5 mm optical
Units	Rz, Ra
Display	4-digit LCD display, with background lights
Maximum surrounding temperature	0 ... +50 °C
Maximum surrounding air humidity	< 80%
Diameters	140 x 52 x 48 mm
Weight	280 g

**Delivery Content of the Surface Texture Meter PCE-RT 10:**

1 x Surface Texture Meter PCE-RT 10, 1x instruction manual