

# Material Surface Roughness Tester PCE-RT 10



## PCE-RT 10 Material Surface Roughness Tester

Measurement range covers Ra and Rz /

**LCD display with background light / Sensor made of a diamond / Induction principle**

The Material Surface Roughness Tester PCE-RT 10 is a small, lightweight device with simple navigation. Despite the fact that the device functions on a very complex and elaborate level, the measurement results can be gained quickly and easily. 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

# Specifications

Standards	GB/T6062, ISO4287, DIN4768, JIS B, ANSI46.1
Display	LCD
Parameters	Ra, Rz
Range	Ra: 0.05~10.00 $\mu\text{m}$ Rz: 0.1~50.0 $\mu\text{m}$
Accuracy	$\pm 15 \%$
Fluctuation of Display Value	10 %
Resolution	0,001 / 0,01 / 0,1

## Sensor

Radius of Probe Pin	10 $\mu\text{m}$
Material of Probe Pin	Diamond
Measurement Force of Probe	16 mN(1.6gf)
Probe Angle	90°
Vertical Radius of Guiding Head	48 mm
Maximum Driving Stroke	12,5 mm / 0,5 inch
Cutoff length(l)	0,25 mm, 0,8 mm, 2,5 mm

## Driving Speed

Sampling	when Length = 0,25 mm, $V_t = 0,135 \text{ mm/s}$
Sampling	when Length = 0,8 mm, $V_t = 0,5 \text{ mm/s}$
Sampling	when Length = 2,5 mm, $V_t = 1 \text{ mm/s}$
Returning	$V_t = 1 \text{ mm/s}$

Evaluation Length	1~2L Optional
Operating Conditions	Temp: 0 ~ 50 °C Humidity: <80 % RH
Power Supply	4 x 1.5 VAA (UM-3) Battery
Dimensions	128 x 80 x 30mm
Weight	280 g

Subject to change

