

## SR110 Surface Roughness Gauge



### The performance advantage

- The roughness of metal and non-metallic surface
- Pocket-size & economically price
- Large measuring range suitable for most materials
- Features external calibration at keyboard
- Optimized electric circuit design with transducer structure-design, high integrate power, driver and display.
- Select freely with Ra, Rz, Rq, Rt parameters.
- It could test ex-circle, flat surface, conical surface and also test groove with length and width larger than 80\*30mm.

## Main Function

- ❖ Shape used to pull aluminum mold design, durable, anti-electromagnetic interference ability significantly, in line with the design of the new trend.
- ❖ Using high-speed DSP processor for data processing and calculation, measurement and computation speed is greatly improved.
- ❖ Liquid crystal display wide temperature using OLED color display, popular high brightness, no visual angle,, is suitable for various occasions.
- ❖ The lithium ion rechargeable battery, can work for a long time, no memory effect, can while charging, charging time is short, long battery life.
- ❖ Charging and communication using the common USB interface. Using a dedicated charger or computer USB port for charging, convenient and quick.
- ❖ Dot matrix liquid crystal display, interface prompt information rich.
- ❖ Real-time monitoring of lithium battery power and display, and to remind users to charge with charging progress indication.
- ❖ Automatic shutdown function and low power design of software and hardware of the instrument with long working hours, suitable for field use.

## Specification

- ◆ Testing parameters ( $\mu\text{m}$ ): Ra、Rz、Rq、Rt
- ◆ Stroke length (mm): 6
- ◆ Sample length (mm): 0.25 , 0.80 , 2.50
- ◆ Evaluation length (mm): 1.25 , 4.0
- ◆ Measuring range ( $\mu\text{m}$ ): Ra、Rq: 0.05 ~ 10.0;Rz、Rt: 0.1 ~ 50
- ◆ Error:  $\pm 15\%$
- ◆ Variability:  $< 12\%$
- ◆ Transducer contacting pin round diameter and angle:
- ◆ Contacting pin round diameter:  $10 \mu\text{m} \pm 1 \mu\text{m}$
- ◆ Battery: 3.7V Li
- ◆ Size: 106 mm×70 mm×24 mm
- ◆ Weight: 200g
- ◆ Sensor needle static force and its rate of change:

Stylus static force:  $\leq 0.016\text{N}$

Force measuring rate of change:  $\leq 800\text{N/m}$

- ◆ Working conditions:

Temperature:  $-20^{\circ}\text{C} \sim 40^{\circ}\text{C}$

Relative humidity:  $< 90\%$

No shake and coercivity around

**Schedule: sampling length selection recommendation form**

Ra ( $\mu\text{m}$ )	Rz ( $\mu\text{m}$ )	The sampling length $\lambda_c(\text{mm})$
>5~10	>20~40	2.5
>2.5~5	>10~20	
>1.25~2.5	>6.3~10	0.8
>0.63~1.25	>3.2~6.3	
>0.32~0.63	>1.6~3.2	
>0.25~0.32	>1.25~1.6	0.25
>0.20~0.25	>1.0~1.25	
>0.16~0.20	>0.8~1.0	
>0.125~0.16	>0.63~0.8	
>0.1~0.125	>0.5~0.63	
>0.08~0.1	>0.4~0.5	
>0.063~0.08	>0.32~0.4	
>0.05~0.063	>0.25~0.32	
>0.04~0.05	>0.2~0.25	
>0.032~0.04	>0.16~0.2	
>0.025~0.032	>0.125~0.16	
>0.02~0.025	>0.1~0.125	

**Standard configuration**

Standard configuration		
	Name	QTY
1	SR110 host	1
2	reticle calibration block	1



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3	bracket	1
4	Charger	1
5	data line	1
6	manual	1
7	warranty card	1
8	certificate	1