

## Ruwheidsmeter ITR-110

complete ruwheidsmeter met uitwisselbare externe taster.



### Features

This instrument is compatible with four standards of site to measure surface roughness of various machinery-processed parts, calculate corresponding and clearly display all measurement parameters.

When measuring the roughness of a surface, the sensor is placed on the surface and then uniformly slides along the surface by driving the mechanism by the sharp built-in probe. This roughness causes displacement of the probe which results in change of inductive amount of induction coils so as to generate analogue signal, which is in proportion to the surface roughness at output end of phase-sensitive rectifier.

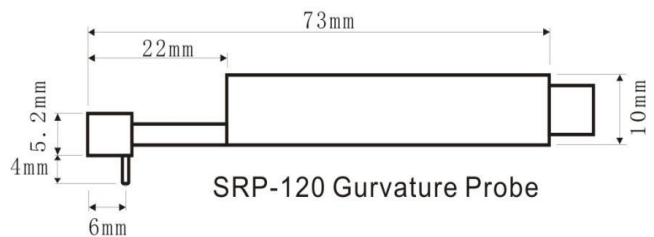
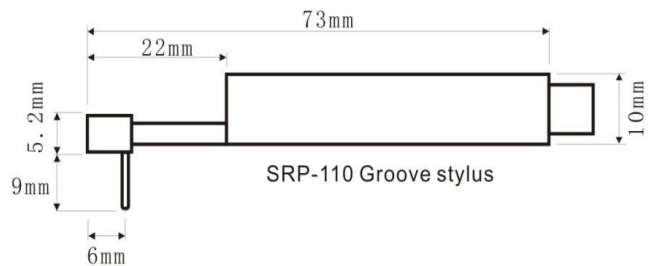
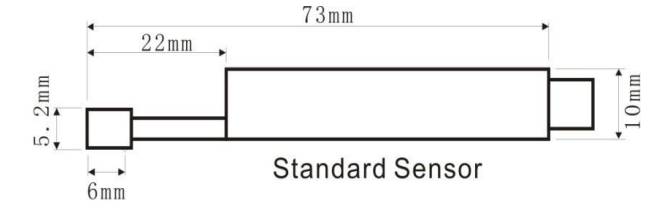
The exclusive DSP processes and calculates and then outputs the measurement results on LCD.

- \* Multiple parameter measurement: Ra, Rz, Rq, Rt
- \* Highly sophisticated inductance sensor
- \* Four wave filtering methods : RC, PC-RC, GAUSS and D-P
- \* Built-in lithium ion rechargeable battery and control circuit with high capacity
- \* Can communicate with PC computer for statistics, printing and analysing by the optional cable and the software for RS232C interface.
- \* Manual or automatic shut down. The tester can be switched off by pressing the Power key at any time. On the other hand, the tester will power itself off about 5 minutes after the last key operation.
- \* The tester can memorize 7 groups of measurement results and measuring conditions for later use or download to PC for analysing, printing.
- \* Metric/Imperial Conversion

Specifications	
Display	4 digits, 10 mm LCD, with blue backlight
Parameters	Ra, Rz, Rq, Rt
Display Range	Ra, Rq: 0.025-16.00um/1.000-629.9uinch Rz, Rt: 0.020-160.0um/0.780-6299uinch



<b>Accuracy</b>	: <b>Not more than ±10%</b>
<b>Fluctuation of display value</b>	: Not more than 6%
<b>Sensor</b>	
<b>Test Principle</b>	: Inductance type
<b>Radius of Probe Pin</b>	: 5um (default) 2um
<b>Material of Probe Pin</b>	: Diamond
<b>Measurement Force of Probe</b>	: 4mN(0.4gf) for 5um stylus 0.75mN(0.075gf) for 2um stylus
<b>Probe Angle</b>	: 90°
<b>Vertical Radius of Guiding Head</b>	: 48mm
<b>Maximum driving stroke</b>	: 17.5mm/0.7inch
<b>Cutoff length (l)</b>	: 0.25mm / 0.8mm / 2.5mm optional
<b>Driving speed</b>	Vt=0.135mm/s if sampling length = 0.25mm Vt=0.5mm/s if sampling length = 0.8mm Vt=1mm/s if sampling length = 2.5mm Vt=1mm/s if returning
<b>Resolution</b>	: 0.001µm if reading <10µm 0.01µm if 10µm≤reading<100µm 0.1µm if reading ≥100µm
<b>Evaluation length</b>	: ( 1~5) cut-off optional
<b>Power Li-ion battery</b>	: Rechargeable
<b>Operating conditions</b>	: Temp. 0~50
<b>Humidity</b>	: <85%
<b>Size</b>	: 140x57x48 mm (5.5x2.2x1.9 inch)
<b>Weight</b>	: about 420 g
<b>Standard Accessories</b>	Carrying case Main unit Standard sensor Standard sample plate Power adapter Operation manual Screwdriver Adjustable leg Sheath of sensor
<b>Optional accesories</b>	: Cable & software for S232C Extension rod Measurement support



## Ruwheidsmeter ITR-220

Eenvoudige ruwheidsmeter met ingebouwde taster.  
Geschikt voor grotere vlakke oppervlakken.

This instrument is compatible with four standards of ISO, DIN, ANSI and JIS and is widely used in production site to measure surface roughness of various machineryprocessed parts, calculate corresponding parameters according to selected measuring conditions and clearly display all measurement parameters.

When measuring the roughness of a surface, the sensor is placed on the surface and then uniformly slides along the surface by driving the mechanism inside the tester. The sensor gets the surface roughness by the sharp built-in probe. This roughness causes displacement of the probe which results in change of inductive amount of induction coils so as to generate analogue signal, which is in proportion to the surface roughness at output end of phase-sensitive rectifier. The exclusive DSP processes and calculates and then outputs the measurement results on LCD.

- \* Very easy to operate
- \* Multiple parameter measurement: Ra, Rz
- \* Highly sophisticated inductance sensor
- \* Built-in lithium ion rechargeable battery and control circuit with high capacity
- \* Small in size, light in weight and easy to use
- \* Can communicate with PC computer for statistics, printing and analysing by the optional cable and the software for RS232C interface.
- \* Manual or automatic shut down. The tester can be switched off by pressing the Power key at any time. On the other hand, the tester will power itself off about 5 minutes after the last key operation.





Specifications:	
<b>Display</b>	: 4 digits, 10 mm LCD, with blue backlight
<b>Parameters</b>	: Ra, Rz
<b>Display Range</b>	: Ra: 0.05-10.00um/1.000-400.0uinch Rz: 0.020-100.0um/0.780-4000uinch
<b>Accuracy</b>	: Not more than 10%
<b>Fluctuation of display value</b>	: Not more than 6%
<b>Sensor</b>	
<b>Test Principle</b>	: Inductance type
<b>Radius of Probe Pin</b>	: 10um
<b>Material of Probe Pin</b>	: Diamond
<b>Measurement Force of Probe</b>	: 16mN(1.6gf)
<b>Probe Angle</b>	: 90°
<b>Vertical Radius of Guiding Head</b>	: 48mm
<b>Maximum driving stroke</b>	: 17.5mm/0.7inch
<b>Cutoff length (l)</b>	: 0.25mm / 0.8mm / 2.5mm optional
<b>Evaluation length</b>	: 1~5 cut off optional
<b>Driving speed</b>	: sampling length = 0.25mm Vt=0.135mm/s sampling length = 0.8mm Vt=0.5mm/s sampling length = 2.5mm Vt=1mm/s returning Vt=1mm/s
<b>Resolution</b>	: 0.001µm if reading < 10µm 0.01µm if 10µm ≤ reading < 100µm 0.1µm if reading ≥ 100µm
<b>Power Li-ion battery</b>	: rechargeable
<b>Operating conditions</b>	: Temp. 0-50°C
<b>Humidity</b>	: <80%
<b>Size</b>	: 140×52×48mm(5.5x2.2x1.9 inch)
<b>Weight</b>	: about 280 g
<b>Battery</b>	: 4×1.5V AA (UM-3) battery
<b>Accessories</b>	: Standard Sensor RP-100 Standard Sample Plate SSP-180