KOSEMITSU

PRECISION MEASURING INSTRUMENTS

DURABLE
VERSATILE
TRUSTED

MEASURE **BETTER** FOR A PRECISE TOMORROW

Reliable Solutions for
Surface, Form and Dimensional
Measurement

MANUFACTURING | AUTOMOTIVE | AEROSPACE | QUALITY CONTROL

MARKETED BY

PRECISON IS OUR PROFESSION
BHAGWATI
SINCE 1976

SURFACE ROUGHNESS TESTER

SRT-110

PRODUCT CHARACTERISTICS

1. Four measurement parameters: Ra,Rz.,Rt, Rq can be selected
2. Double-screen design is used to facilitate reading from the top window during measurement.
3. With calibration function to achieve high accuracy.
4. OLED liquid crystal display, high brightness, full viewing angle,wide temperature, suitable for various occasions.
5. Optional cell phone measurement software, using a separate APP to control the measurement work.
6. The sensor probe has a protective door, which effectively protects the sensor probe and ensures the accuracy of the measurement.

APPLICATION AREA

Widely used in machining, aerospace, auto parts, communications, electricity, electronics and other industries, but also suitable for universities, scientific research institutes, technical supervision bureau, special inspection and so on.

TECHNICAL SPECIFICATIONS

Measurement parameters	Ra, Rz, Rq, Rt
Measurement range (µm)	Ra, Rq:0.05-10.0;Rz, Rt : 0.1-60
Sampling length (mm)	0.25 , 0.80 , 2.5
Evaluation length (mm)	1.25, 4.0, 5.0
Stroke length (mm)	6
Indicating value resolution ratio	0.001µm
Indication error	±15%
Indication value variability	<12 %
Needle tip arc radius	10µm±2.Sµm
Static measuring force of stylus	</= 0.016N
Force change rate	</= 800N/M
Sensor head pressure	</= 0.5N
Overall dimension	110mmX81mmX32 mm
Weight	150g

STANDARD CONFIGURATION

Name	QTY
Host	1
Adaptor	1
Specification	1
Certification	1
Standard Template	1
USB Cable	1
Warranty Card	1
Packing List	1

SURFACE ROUGHNESS TESTER

SRT-220

PRODUCT CHARACTERISTICS

1. ARM chip, with fast data control speed and low power consumption.
2. Colour Screen, Display all parameters and Graphics and waveforms.
3. Large range, can test 23+ parameters: Ra,Rz,Rq,Rt,Rp,Rv,Rmax,R3z,RSK, RS,RSm,Rmr,Rku,Rpc,etc
4. With automatic calibration function, to achieve high accuracy.
5. Colours can be optional,Red/Blue/White/Black
6. Compatitable with ISO,DIN,ANSI,JIS international standards.
7. With PC and Mobile phone(Only Android) Control.
8. Compatible with a variety of sensors: Standard sensor,Small hole sensor, Groove sensor,Deep groove sensor,Curved sensor.

TECHNICAL SPECIFICATIONS

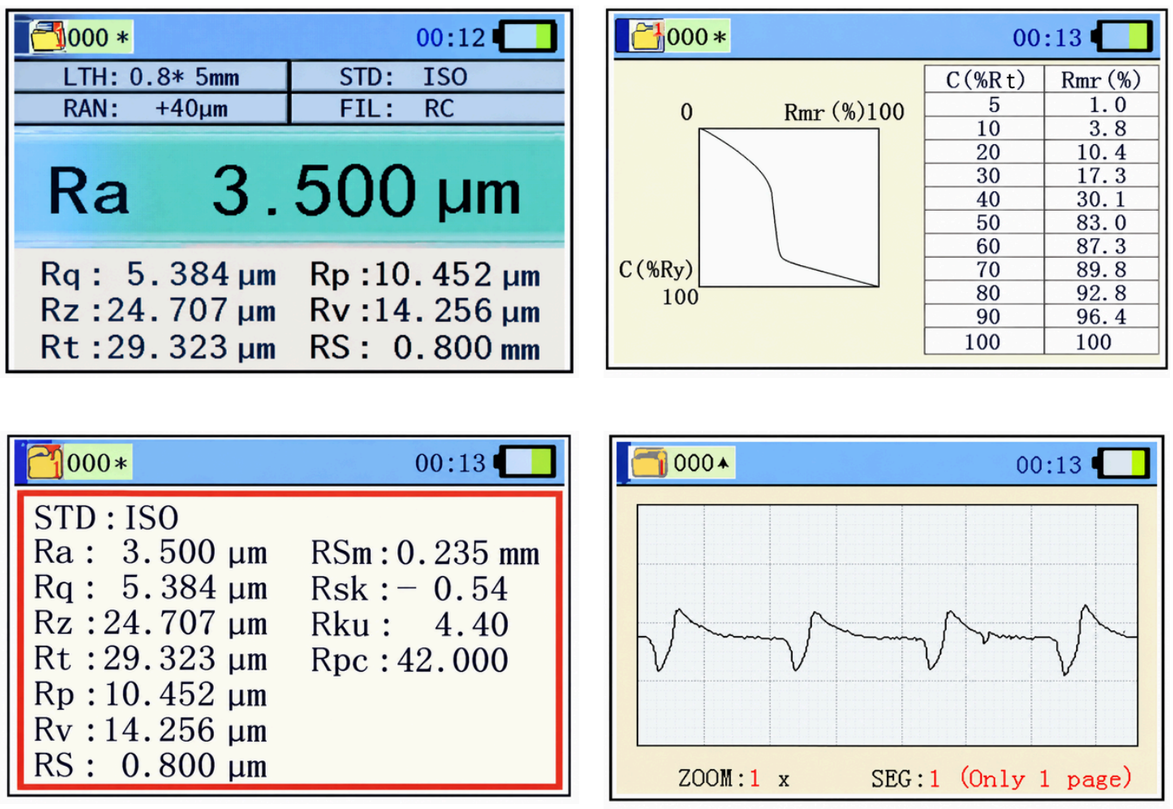
Measurement parameters	Ra,Rq,Rz,Rv,Ry,Rk,Rpk,Rvk,R3y,R3z,Rt,Rp, Rmax,RS,RSm,Rku,Rsk,Rpc,Mr1 ,Mr2
Measurement range (µm)	Ra:0.02 5-12.5
Display range (µm)	Ra,Rq:0.005-16µm. Rz,Ry,Rt,Rp,Rv,Rmax,R3z: 0.02-160µm. RS,RSm: 1mm. Rmr:0-100%(0/oRt). Rsk:0-100%
Range (Z-axis)	±20/±40/±80 um
Maximum resolution	0.001um
Filter	RC PC-RC GAUSS, D-P
Sampling length	0.25mm,0.8mm,2. 5mm
Evaluation length	(1-5)1,optional,1 is sampling length
Maximum drive length	17.5mm/0.7inch
Minimum drive length	1.3mm/0.052inch
Indication error	</=5±10%
Indicating value variability	</=6%
Display mode	128*64 OLED
Overall dimension	140mmX52mmX48mm

STANDARD CONFIGURATION

Name	QTY
Host	1
Adaptor	1
Specification	1
Certification	1
Standard Template	1
USB Cable	1
Warranty Card	1
Packing List	1

APPLICATION AREA

Widely used in machining, aerospace, auto parts, communications, electricity, electronics and other industries, but also suitable for universities, scientific research institutes, technical supervision bureau, special inspection and so on.



320 * 240 primary color LCD display screen

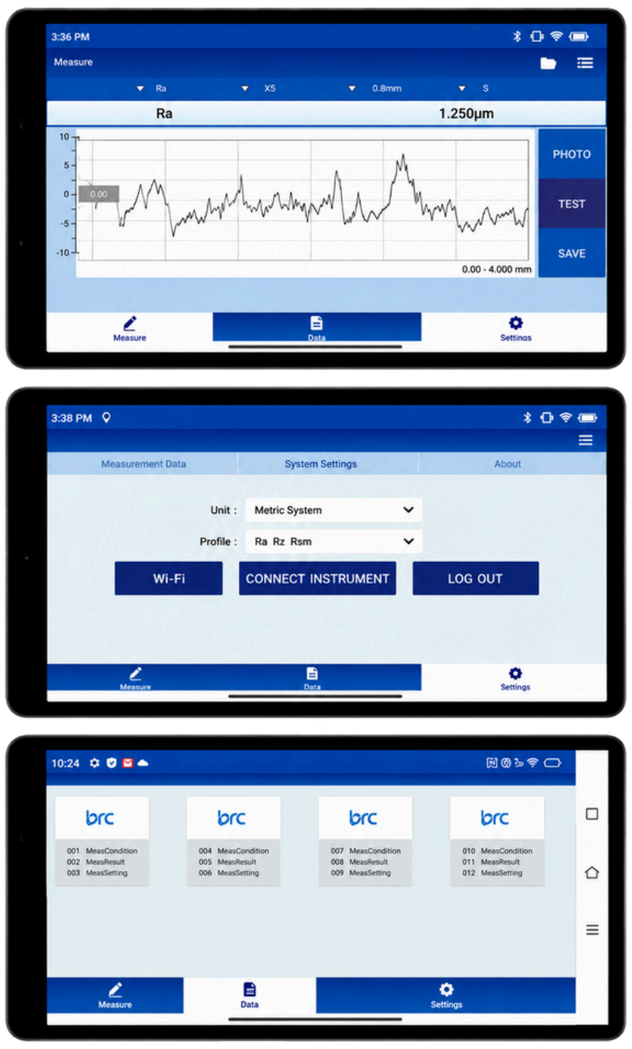
1. All visual display
2. Measurement process display, measure parameters and waveform contours
3. One measurement can display 7 results
4. Can check Rmr and 23+ roughness

FLASH Disk (default configuration)

Contain PC and Android App

Using PC measurement software with strong scalability

The latest developed measurement synchronization software. For Android APP With Original contour display, export report, and more functions



STANDARD ACCESSORIES

Protective cover-For all sensors used to different kinds of surfaces

OPTIONAL ACCESSORIES

Support Micro SD (32G MAX)

OPTIONAL ACCESSORIES (SUITABLE FOR MORE MODELS OF ROUGHNESS TESTER)

Material: Cast iron

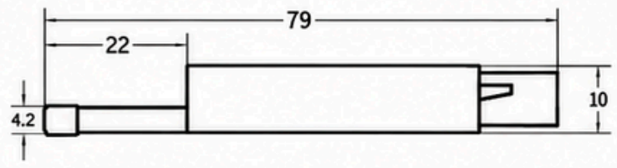
Name: Light weight test platform maximum workpiece height is **300 mm**

Material: Marble

Name: Heavy weight test platform maximum workpiece height is **500 mm**

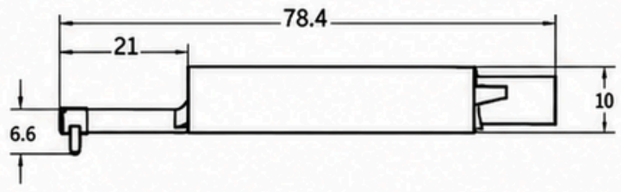
SURFACE ROUGHNESS TESTER PROBES

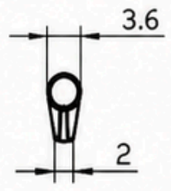
Standard sensor (standard)



It can measure the roughness of plane and cylindrical surfaces, and can measure the minimum diameter of inner holes of 5mm and the maximum depth of 22mm.

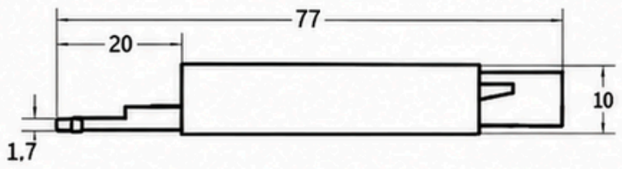
Curved surface sensor (optional)





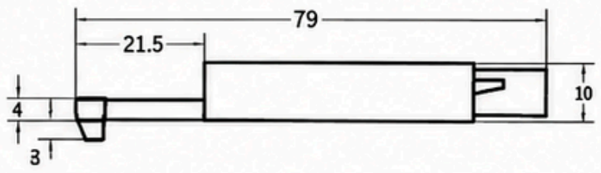
It can measure the roughness of concave and convex workpiece surfaces with a curvature radius greater than 6mm, and can also measure suitable planes and cylinders.

Small hole sensor (optional)



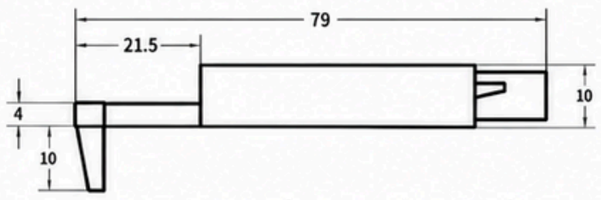
It can measure the surface roughness of holes with a diameter greater than 2mm, with a maximum depth of 9mm. It can also measure planes and cylinders.

Groove sensor (optional)



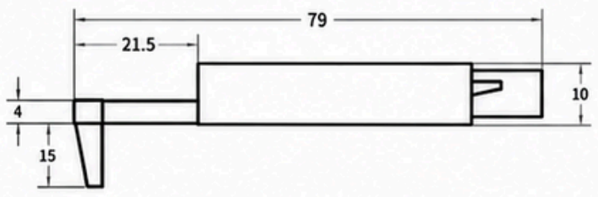
It can measure the surface roughness of grooves with a width greater than 2mm and a depth less than 3mm, or steps with a height less than 3mm. It can also measure the surface roughness of planes and cylinders.

Deep groove sensor (optional)



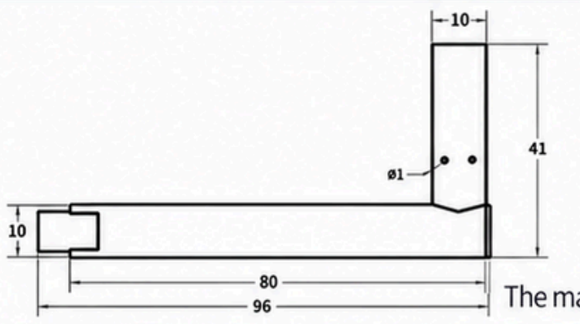
It can measure the surface roughness of grooves with a width greater than 3mm and a depth less than 10mm, or steps with a height less than 10mm. It can also measure planes and cylinders.

Extended deep groove sensor



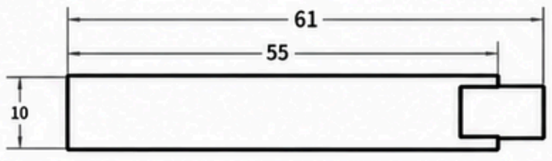
It can measure the surface roughness of grooves with a width greater than 3mm and a depth less than 15mm, or steps with a height less than 15mm. It can also measure planes and cylinders.

Adapter rod (optional)



The machine can be moved laterally for measurement

Extension rod (optional)



The length of various sensors can be extended, which is beneficial for measuring deep holes

TECHNICAL SPECIFICATIONS

Measurement parameters	Ra,Rq,Rz,Rv,Ry,Rk,Rpk,Rvk,R3y,R3z,Rt,Rp, Rmax,RS,RSm,Rku,Rsk,Rpc,Mr1 ,Mr2
Measurement range (µm)	Ra:0.005-12.5
Display range (µm)	Ra,Rq:0.005-16µm; Rz,Ry,Rt,Rp,Rv,Rmax,R3z: 0.02-160µm; RS, RSm: 1mm; Rmr:0-100%(%Rt). Rsk:0-100%
Range (Z-axis)	±20µm,±40µm,±80 µm
Accuracy	0.001µm
Filter	RC, PC-RC, GAUSS, D-P
Sampling length	0.25mm,0.8mm,2.5mm
Evaluation length	Ln= Ir *n (n=1-5)
Maximum drive stroke	17.5mm/0.7inch
Minimum drive stroke	1.3mm/0.052inch
Indication error	</=±10%
Indicating value variability	</=3%
Display mode	128*64 OLED
Overall dimension	140mmX52mmX48mm
Weight	412g
Work environment	-2o·c- 4o•c, Humidity< 90%RH
Principle	Inductive type
The needle	Diamond, 5 µm Needle tip radius
Measurement force	4mN(0.4gf)
Angle	90 degree
Guide radius	45mm

STANDARD CONFIGURATION

Name	QTY
Host	1
Calibration Block and Support	1
Sensor Jacket	1
USB Cable	1
Standard Sensor	1
AC/DC Power adaptor	1
Warranty Card	1
Packing List	1
Certification	1
U disk	1

OPTIONAL ACCESSORIES

Curved sensor	TS 110
Groove sensor	TS 130
Extened Deep groove sensor	TS 131
Small hole sensor	TS 120
Extension Rod	RS 001
Transfer structure	RS 002
Measurement support frame	SR200-T1
Protective Cover	SR220-T2
Micro SD card	SD-422
Light test platform	TA320
Heavy test platform	TA620

SURFACE ROUGHNESS TESTER

SRT-420

PRODUCT CHARACTERISTICS

1. ARM chip, with fast data control speed and low power consumption.
2. Colour Screen, Display all parameters and Graphics and waveforms.
3. Large range, can test 23+ parameters:
   Ra,Rz,Rq,Rt,Rp,Rv,Rmax,R3z,RSK, RS,RSm,Rmr,Rku,Rpc,etc
4. With automatic calibration function, to achieve high accuracy.
5. Colours can be optional,Red/Blue/White/Black
6. Compatitable with ISO,DIN,ANSI,JIS international standards.
7. With PC and Mobile phone(Only Android) Control.
8. Compatible with a variety of sensors: Standard sensor,Small hole sensor, Groove sensor,Deep groove sensor,Curved sensor.

TECHNICAL SPECIFICATIONS

Measurement parameters	Ra,Rq,Rz,Rv,Ry,Rk,Rpk,Rvk,R3y,R3z,Rt,Rp, Rmax,RS,RSm,Rku,Rsk,Rpc,Mr1 ,Mr2
Measurement range (μm)	Ra:0.02 5-12.5
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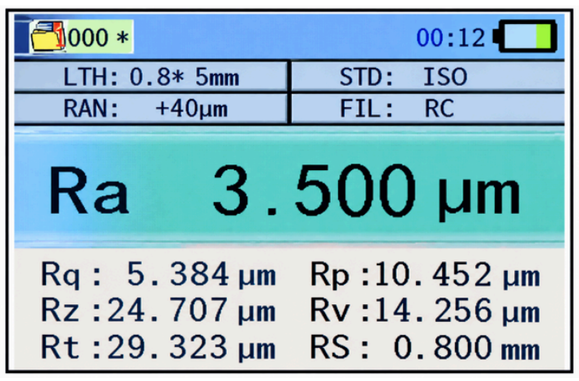
Range (Z-axis)	±20/±40/±80 um
Maximum resolution	0.001um
Filter	RC PC-RC GAUSS, D-P
Sampling length	0.25mm,0.8mm,2. 5mm
Evaluation length	(1-5)1,optional,1 is sampling length
Maximum drive length	17.5mm/0.7inch
Minimum drive length	1.3mm/0.052inch
Indication error	</=±10%
Indicating value variability	</=6%
Display mode	128*64 OLED
Overall dimension	140mmX52mmX48mm

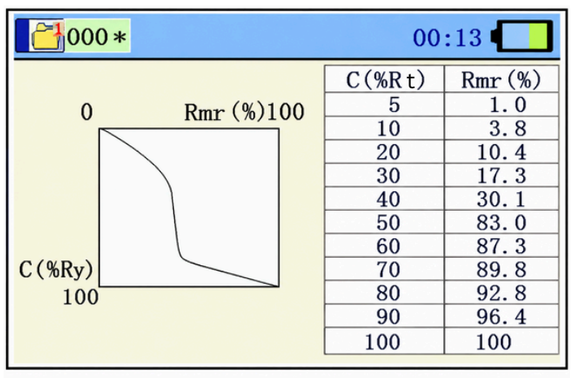
STANDARD CONFIGURATION

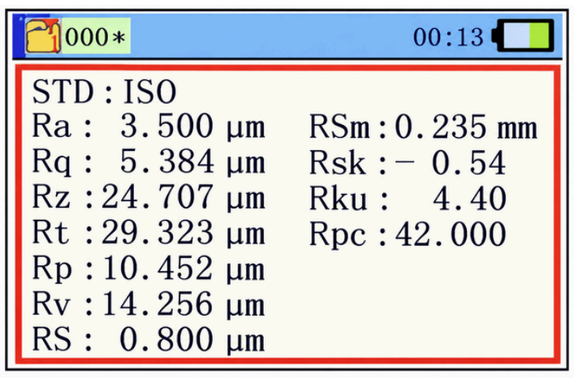
Name	QTY
Host	1
Adaptor	1
Specification	1
Certification	1
Standard Template	1
USB Cable	1
Warranty Card	1
Packing List	1

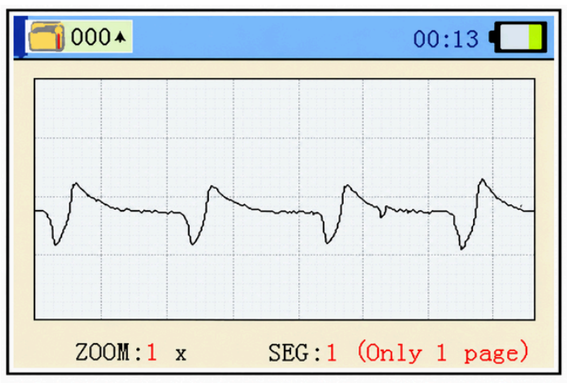
APPLICATION AREA

Widely used in machining, aerospace, auto parts, communications, electricity, electronics and other industries, but also suitable for universities, scientific research institutes, technical supervision bureau, special inspection and so on.









320 * 240 primary color LCD display screen

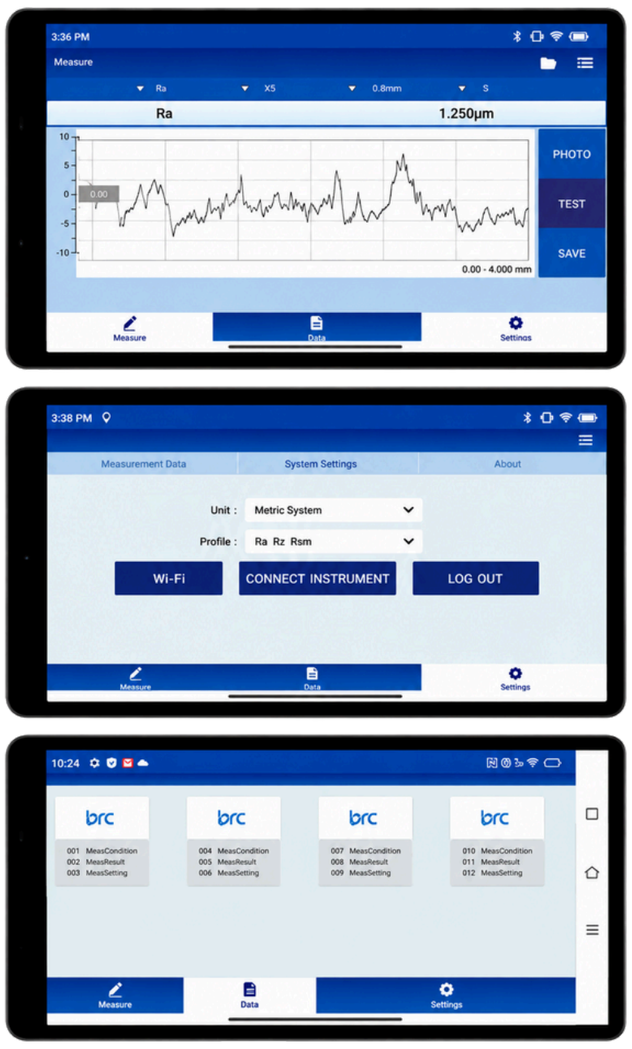
1. All visual display
2. Measurement process display, measure parameters and waveform contours
3. One measurement can display 7 results
4. Can check Rmr and 23+ roughness

FLASH Disk (default configuration)

Contain PC and Android App

Using PC measurement software with strong scalability

The latest developed measurement synchronization software. For Android APP With Original contour display, export report, and more functions



STANDARD ACCESSORIES

Protective cover-For all sensors used to different kinds of surfaces

OPTIONAL ACCESSORIES

Support Micro SD (32G MAX)

OPTIONAL ACCESSORIES (SUITABLE FOR MORE MODELS OF ROUGHNESS TESTER)

Material: Cast iron

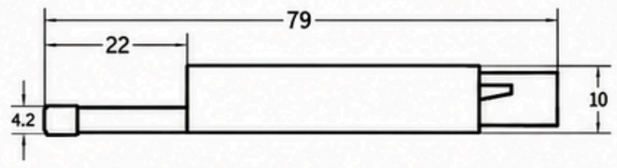
Name: Light weight test platform maximum workpiece height is **300 mm**

Material: Marble

Name: Heavy weight test platform maximum workpiece height is **500 mm**

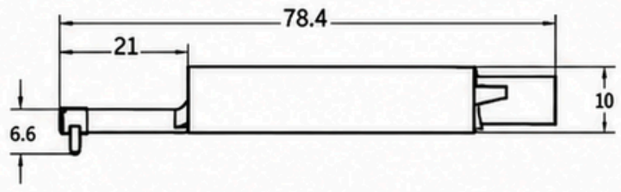
SURFACE ROUGHNESS TESTER PROBES

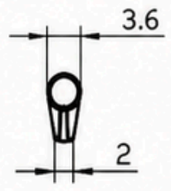
Standard sensor (standard)



It can measure the roughness of plane and cylindrical surfaces, and can measure the minimum diameter of inner holes of 5mm and the maximum depth of 22mm.

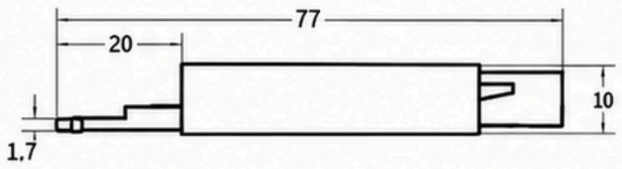
Curved surface sensor (optional)





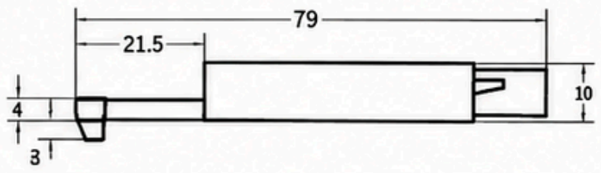
It can measure the roughness of concave and convex workpiece surfaces with a curvature radius greater than 6mm, and can also measure suitable planes and cylinders.

Small hole sensor (optional)



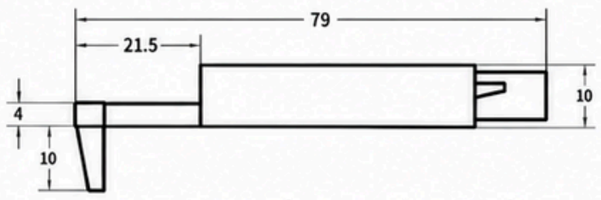
It can measure the surface roughness of holes with a diameter greater than 2mm, with a maximum depth of 9mm. It can also measure planes and cylinders.

Groove sensor (optional)



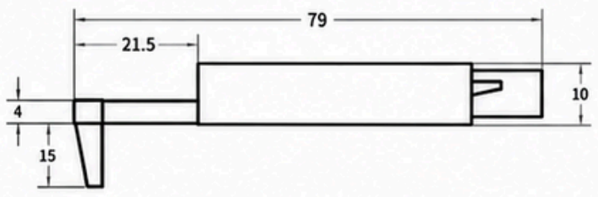
It can measure the surface roughness of grooves with a width greater than 2mm and a depth less than 3mm, or steps with a height less than 3mm. It can also measure the surface roughness of planes and cylinders.

Deep groove sensor (optional)



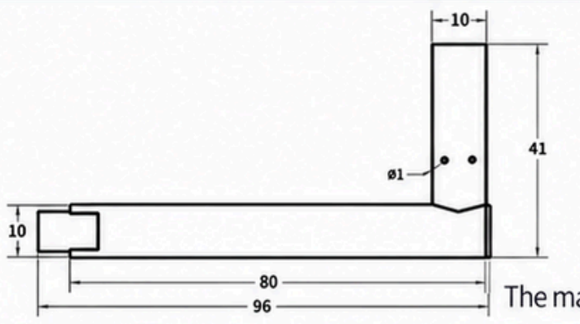
It can measure the surface roughness of grooves with a width greater than 3mm and a depth less than 10mm, or steps with a height less than 10mm. It can also measure planes and cylinders.

Extended deep groove sensor



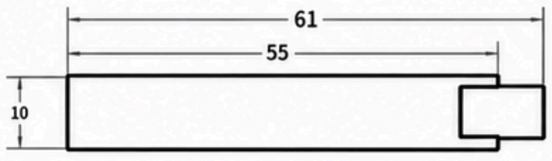
It can measure the surface roughness of grooves with a width greater than 3mm and a depth less than 15mm, or steps with a height less than 15mm. It can also measure planes and cylinders.

Adapter rod (optional)



The machine can be moved laterally for measurement

Extension rod (optional)



The length of various sensors can be extended, which is beneficial for measuring deep holes

TECHNICAL SPECIFICATIONS

Measurement parameters	Ra,Rq,Rz,Rv,Ry,Rk,Rpk,Rvk,R3y,R3z,Rt,Rp, Rmax,RS,RSm,Rku,Rsk,Rpc,Mr1 ,Mr2
Measurement range (um)	Ra:0.005-12.5
Display range (µm)	Ra,Rq:0.005-16µm; Rz,Ry,Rt,Rp,Rv,Rmax,R3z: 0.02-160µm; RS, RSm: 1mm; Rmr:0-100%(%Rt). Rsk:0-100%
Range (Z-axis)	±20µm,±40µm,±80 µm
Accuracy	0.001µm
Filter	RC, PC-RC, GAUSS, D-P
Sampling length	0.25mm,0.8mm,2.5mm
Evaluation length	Ln= Ir *n (n=1-5)
Maximum drive stroke	17.5mm/0.7inch
Minimum drive stroke	1.3mm/0.052inch
Indication error	</=±10%
Indicating value variability	</=3%
Display mode	128*64 OLED
Overall dimension	140mmX52mmX48mm
Weight	412g
Work environment	-2o·c- 4o•c, Humidity< 90%RH
Principle	Inductive type
The needle	Diamond, 5 µm Needle tip radius
Measurement force	4mN(0.4gf)
Angle	90 degree
Guide radius	45mm

STANDARD CONFIGURATION

Name	QTY
Host	1
Calibration Block and Support	1
Sensor Jacket	1
USB Cable	1
Standard Sensor	1
AC/DC Power adaptor	1
Warranty Card	1
Packing List	1
Certification	1
U disk	1

OPTIONAL ACCESSORIES

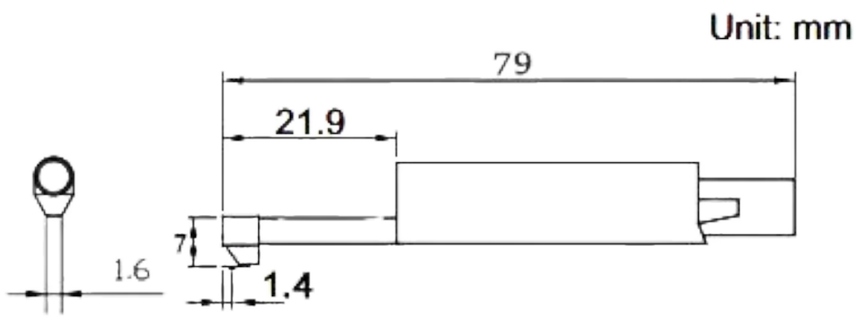
Curved sensor	TS 110
Groove sensor	TS 130
Extened Deep groove sensor	TS 131
Small hole sensor	TS 120
Extension Rod	RS 001
Transfer structure	RS 002
Measurement support frame	SR200-T1
Protective Cover	SR220-T2
Micro SD card	SD-422
Light test platform	TA320
Heavy test platform	TA620

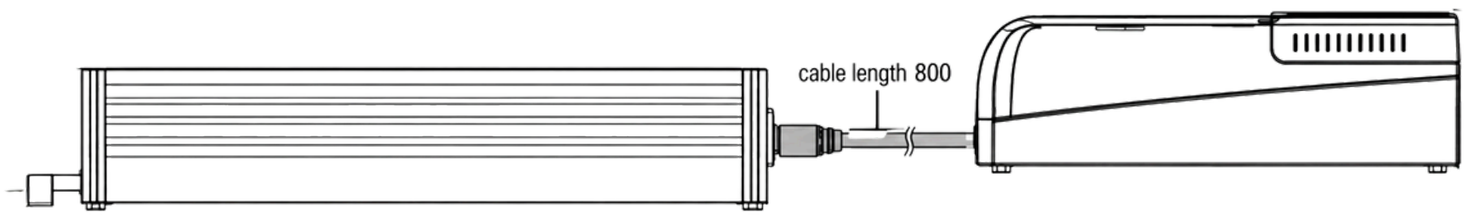
SURFACE ROUGHNESS TESTER (Separable Type)

SRT-520

PRODUCT CHARACTERISTICS

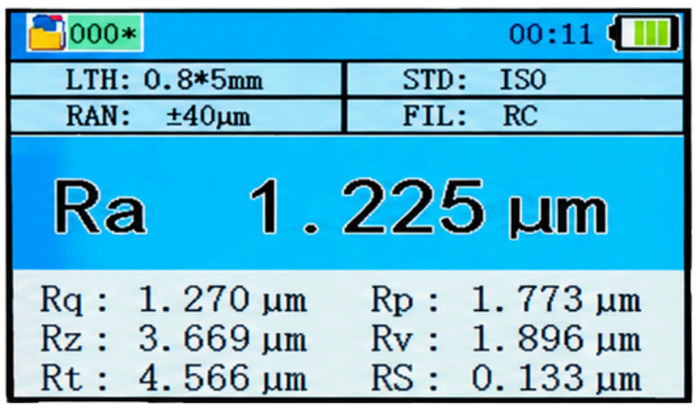
1. Roughness tester can be operated by mobile phones (only Android system) or computers.
2. ARM processor for control and data processing, fast speed, low power consumption.
3. Large range, can measure multi parameters:
   Ra, Rz, Rq, Rt, Rp, Rv, R3z and other 22 parameters.
4. Color LCD display supports real-time display of measurement progress and surface contours.
5. Compatible with ISO, DIN, ANSI, JIS national standards
6. Large capacity data storage, the machine FLASH can store 200 groups of original data and waveform
7. Support SD card storage, up to 16G
8. Compatible with a variety of sensors



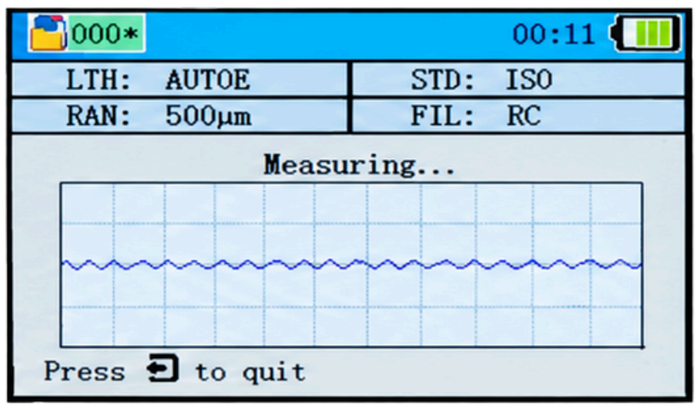


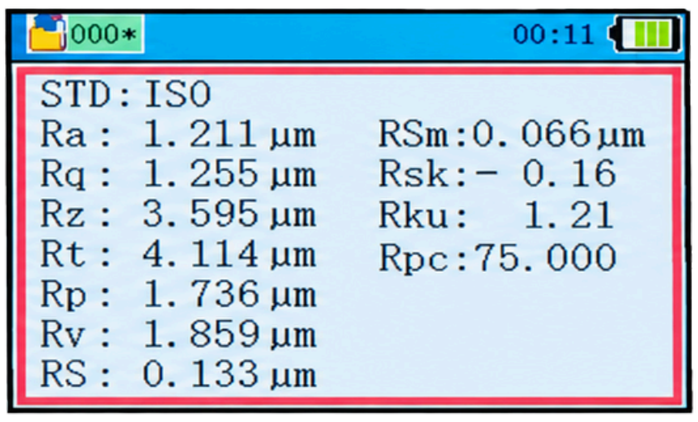
SRT520 Roughness Tester Screen Display

Measurement Result

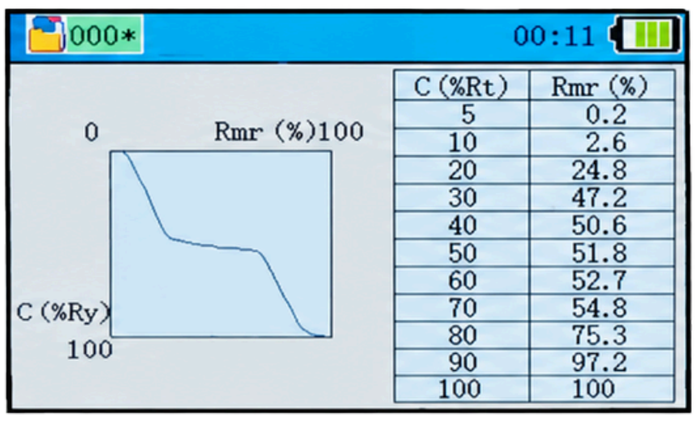


Measurement Profile





Other Parameters



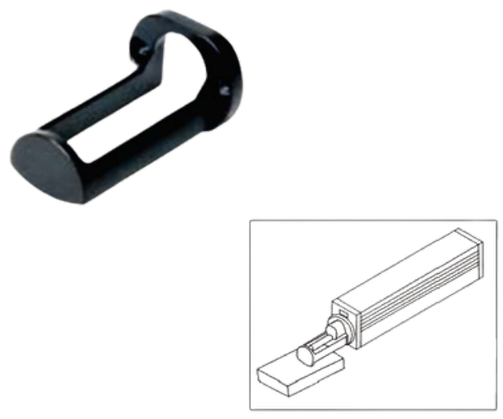
Rmr analysis result

Probe can combined with host machine

FLASH Disk
(default configuration)

Contain PC and Android App

USB connection for roughness values, profiles & curves.



PROTECTIVE COVER
(optional)

For flat surface

Magnetic Stand Adapter
(Optional)

Height Gage Adapter
(optional)

Light Duty Test Stand
(Optional)

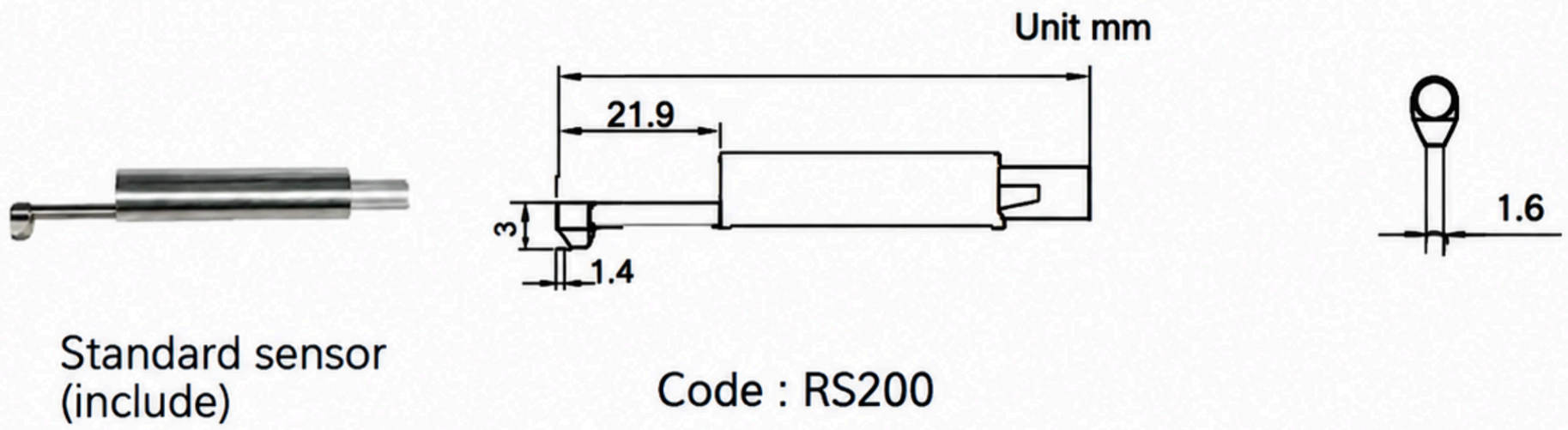
(maximum workpiece height is 300 mm)

Heavy Duty Test Stand
(optional)

(maximum workpiece height is 300 mm)

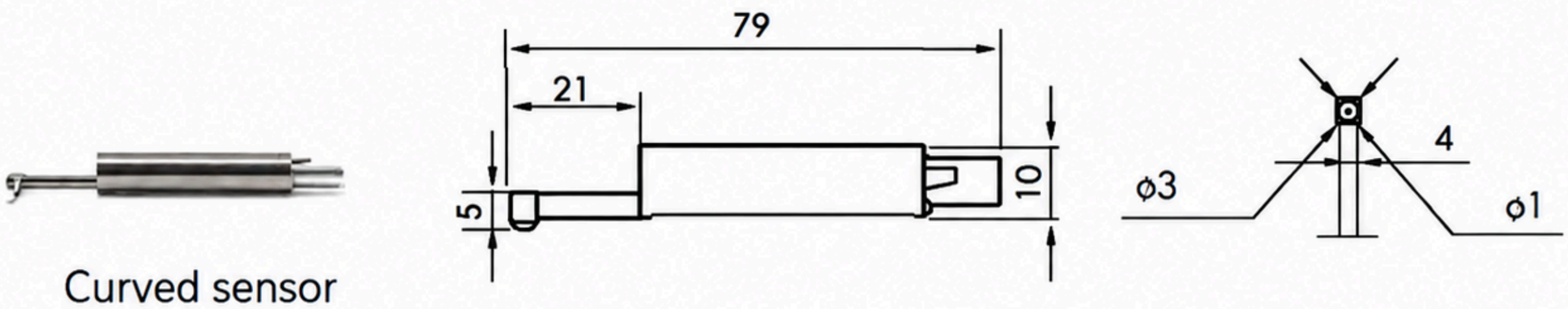
Optional Probes

unit:mm



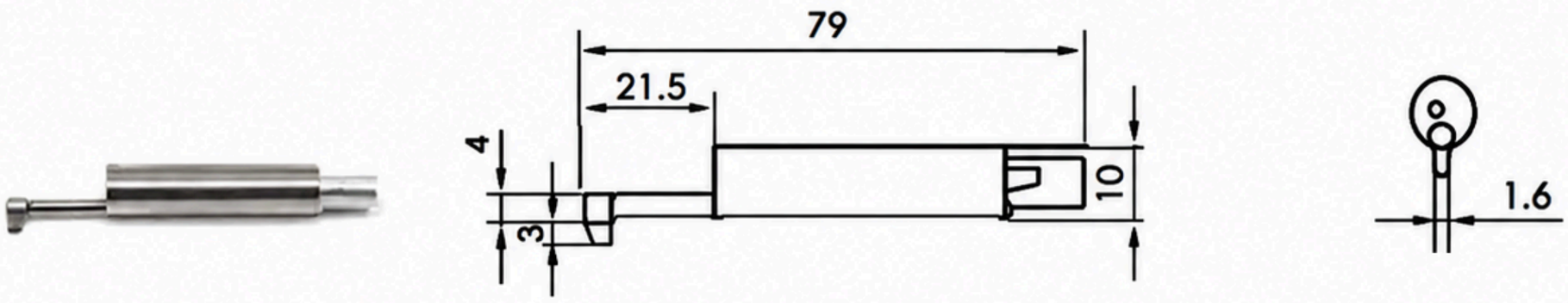
Standard sensor
(include)

Code : RS200



Curved sensor
(optional)

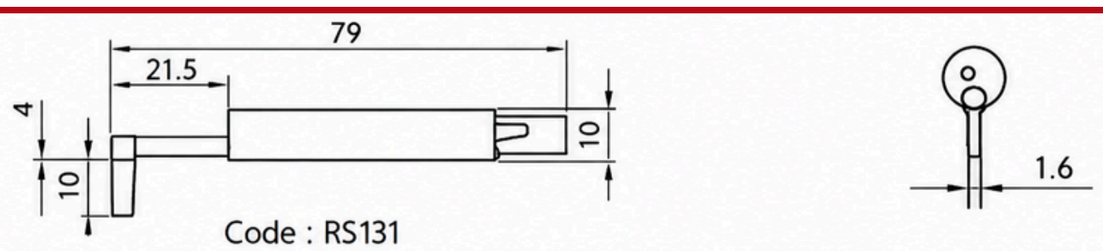
Code : RS110



Groove sensor
(optional)

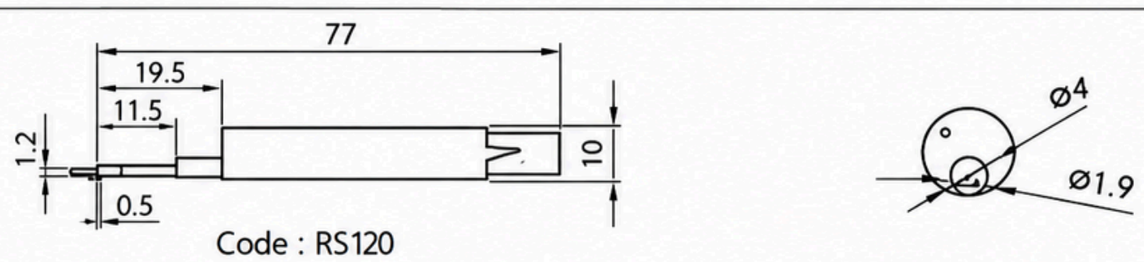
Code : RS130

Deep Groove sensor
(optional)



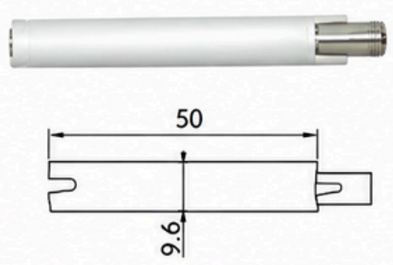
Code : RS131

Small hole sensor
(optional)



Code : RS120

extension rod (optional)
code: RS-01



Horizontal rotation device (optional)
code: RS-002

TECHNICAL SPECIFICATIONS

Measurement parameters	Ra,Rq,Rz,Rv,Ry,Rk,Rpk,Rvk,R3y,R3z,Rt,Rp, Rmax,RS,RSm,Rku,Rsk,Rpc,Mr1 ,Mr2
Resolution (Ra)	0.001 µm
Display range (µm)	Ra,Rq:0.005-16µm; Rz,Ry,Rt,Rp,Rv,Rmax,R3z: 0.02-160µm; RS, RSm: 1mm; Rmr:0-100%(%Rt). Rsk:0-100%
Range (Z-axis)	±20µm,±40µm,±80 µm
Accuracy	10%
Filter	RC, PC-RC, GAUSS, D-P
Sampling length	0.25mm,0.8mm,2.5mm
Evaluation length	(1-5)1 is the sampling length
Maximum drive stroke	17.5mm/0.7inch
Minimum drive stroke	1.3mm/0.052inch
Range	+/- 320µm (Z-axis)
Indicating variability	</=6%
Display mode	320*240 three primary color LCD color
External dimension	140mmX52mmX48mm
Weight	440g
Type	Inductive
Stylus radius/angle	5µm/90 degree
The needle	Diamond

STANDARD CONFIGURATION

Name	QTY
Host	1
Calibration Block and Support	1
Sensor Jacket	1
Standard Sensor	1
AC/DC Power adaptor	1
Warranty Card	1
Packing List	1
Certification	1

OPTIONAL ACCESSORIES

Extemion rod	RS-01
Small Hole Probe	RS 110
Deep Groove Prob	RS 131/ RS 130
Height Gauge Adapter	RT 200
Support for Cylinderical Surface	RS 170
Light Duty Test Stand	RS 320
Heavy Duty Test Stand	RS620

SURFACE
FORM
DIMENSION
QUALITY

KOSEMITSU

PRECISION MEASURING INSTRUMENTS

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MEASURE
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