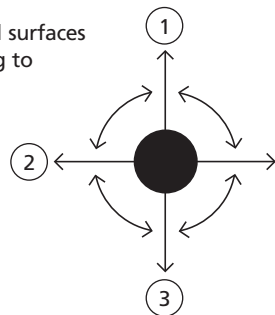


Surface Roughness Tester IPX-103/104

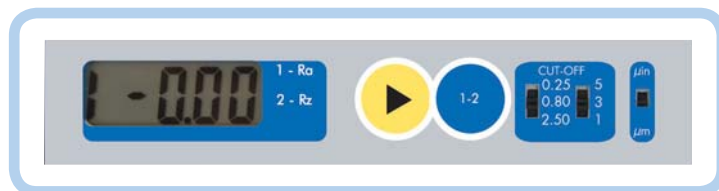
Handheld surface roughness tester for external surfaces and grooves. The IPX-103/104 is a portable, battery-powered instrument for checking surface roughness, with the measured values displayed on a digital readout display. The instrument can be used in laboratory, inspection area, workshop, or wherever on-site surface roughness testing is required.

Features

- Pocket-sized and economically priced!
- External and internal finish testing with swivable tracer
- Ra and Rz parameters in one instrument and all available after each individual test
- Standard 9V battery (not included)
- Three cut-off 0.25mm, 0.8mm and 2.5mm, adjustable to 1-3-5 times
- Piezo-electric pick-up stylus for external surfaces with diamond tip of 2 micron according to the latest ISO standards
- IPX-104 with data output



The IPX-103/104 is a portable, battery-powered instrument for checking surface roughness, with the measured values displayed on a digital readout display. The instrument can be used in laboratory, inspection area, workshop, or wherever on-site surface roughness testing is required.

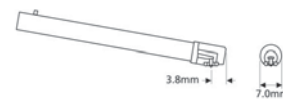


TECHNICAL SPECIFICATION

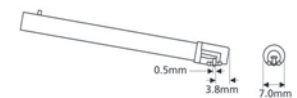
Measuring ranges	Ra-- 0.03µm ~ 6.35µm (1µ"~250µ") Rz-- 0.2µm ~ 25.3µm (8µ"~999µ")
Display resolution	0.01µm / 1µ"
Cut-off	0.25mm / 0.001", 2RC filter, select 1-3-5 times 0.8mm / 0.03", 2RC filter, select 1-3-5 times 2.5mm / 0.01", 2RC filter, select 2 times
Display	3-digit LCD
Accuracy	Meets ISO and DIN standards
Probe Type	Piezoelectric
Maximum stylus force	15.0mN / 1500mgf
Stylus tip radius	Diamond, 2 micron
Power	9V alkaline battery (not included)
Battery capacity	Approx. 3000 measurements
Output	RS-232 to pc or printer (only IPX-104)



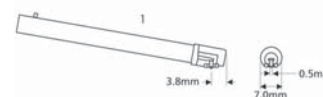
Standard probe for most applications



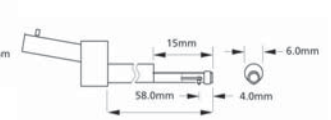
Parallel chisel probe for gauging sharp edges or small O.D., perpendicular for axis of traverse



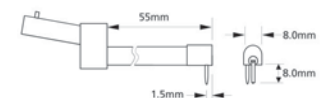
Transverse chisel probe for gauging sharp edges or small O.D., aligned to axis of traverse



Small bore probe, minimum inside diameter 5.0mm, up to depth of 15.0mm



Groove bottom probe for measuring the bottoms of O-ring grooves, recesses and holes up to 8.0mm depth



Standard Delivery

- Main unit IPX-103/104
- Protection cover
- Roughness test plate Ra
- Carrying case
- Manual
- RS-232 (only IPX-104)
- INSPEX certificate

Optional Accessories

- Tracers for special applications
- Stand for stable testing
- Mini-printer with cable
- Datacable to MS-Hyperterminal



Surface Roughness Tester IPX-105

Surface roughness tester with 13 parameters.

Features

- Large range of test parameters RX, Ra, Rz, Rq, Rt, Rp, Rv, R3z, R3y, RzJIS, Rsk, Rku, Rsm, Rmr
- 128 x 64 OLED dot matrix display, digital / graphic display; highlight no perspective
- Large memory, can store 100 groups of original data and waveform
- Display information, can display all the parameters and graphics
- Compatible with ISO, DIN, ANSI, JIS national standards
- Built-in Li-ion rechargeable battery
- Working time > 20 hours of continuous work
- Automatic shutdown and power saving function
- Connected to PC and printer
- Optional reference standards, small bore tracers, measuring stand, tracer extension etc.



TECHNICAL SPECIFICATION

Measurement range	Z Axis (Vertical)	160μm
	X Axis (Horizontal)	17.5mm
Resolution	Z Axis (Vertical)	0.01μm/±20μm, 0.02μm/±40μm, 0.04μm/±80μm
Measurement item	Parameters	Ra, Rq, Rz, Rt, Rp, Rv, RS, RSm, Rz(JIS), RSk, R3z, Rmax, RPC, Rmr
	Standard	ISO, DIN, ANSI and JIS
	Graphic	Roughness profile, Material ratio curve, Direct profile
Filter		RC, PC-RC, GAUSS and D-P
Sampling length (lr)		0.25, 0.8, 2.5mm
Evaluation length (ln)		Ln=lr x n, n=1-5
Pickup	Principle	Differential inductance
	Stylus	Natural diamond, 90B cone angle, 5μm tip radius
	Force	<4mN
	Skid	Ruby, Longitudinal radius 40mm
	Traversing speed	lr=0.25, Vt=0.135mm/s
		lr=0.8, Vt=0.5mm/s
	lr=2.5, Vt=1mm/s	
	Return Vt=1mm/s	
Accuracy		Less than or equal to ±10%
Repeatability		Less than or equal to 6%
Power supply		Built-in Lithium battery, AC adapter 8.4V, 800mA
Dimensions & Weight		119mm x 47mm x 65mm, 380g

Standard Delivery

- Main unit
- Sensor
- Adjustable Support
- Calibration Block
- Charger and USB cable
- Carrying case
- Operation manual
- INSPEX certificate

Optional Accessories

- Optional reference standards
- Small bore tracers
- Measuring stand
- Tracer extension
- Dataview software