

HANDYSURF

Surface Texture Measuring Instrument



support

seven languages!

support

various national standards!

support

Computer connectable!

Powerful Functions

Compact and Easy Operation

E-35B

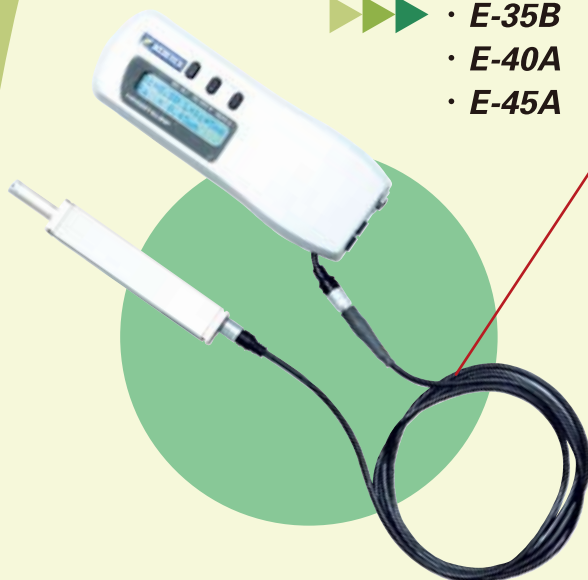
New! **E-40A**

New! **E-45A**



Cable-connected Drive for Measurement in Tight Locations

- ▶▶▶ • **E-35B**
- **E-40A**
- **E-45A**



Built-in Drive for Measurement

- ▶▶▶ • **E-35B**
- **E-40A**



● Surface Texture Measuring Instrument

Driver Unit



E-35B

Standard Type

Popular standard type for on-site measuring

- Powerful functions in a compact design
- Large memory capacity holds data for 10 measurements.

Max. measuring range	12.5mm
----------------------	--------



E-40A

Retraction Type

Detector retracts during measuring standby and after measuring.

- Reduces the risk of probe and pickup damage.
- Supports use of pickup with automated devices built-in.

Retraction amount	1.5mm
-------------------	-------

Max. measuring range	12.5mm
----------------------	--------



E-45A

Horizontal Tracing Type

Tight location type for crankshaft pins, journals, etc.

- Allows highly efficient axial direction measuring using tight location horizontal tracing, which is difficult to accomplish using conventional measure.

Max. measuring range	4.0mm
----------------------	-------

Measuring speed	0.6mm/s
-----------------	---------

*E-45 cannot be built-in to the main unit.



Feature

HandySurf Lineup

HandySurf provides a choice of types that meet the needs of a wide range of applications. In addition to the standard type, both the retraction type which can be built into a device, and a horizontal tracing type for use in tight spaces, make important contributions to on-site measuring around the world.

AI Function for Easy Operation

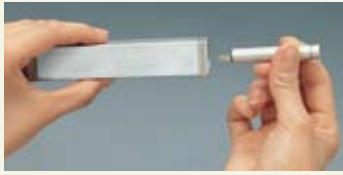
The AI function (patent pending) automatically configures optimum conditions for measuring range, evaluation length, cut-off value, and recording magnification (when a printer is being used), in accordance with the surface being measured.

Can be Used Anywhere in the World

HandySurf conforms to JIS (2001, 1994, 1982), ASME, CNOMO and other international standards. It supports operation using English, Japanese, German, French, Italian, Spanish and Portuguese. It has cleared the European safety standard requirements for CE marking, and the restriction of the use of certain hazardous substances in European Union for RoHS directive



Replaceable Displacement Pickup

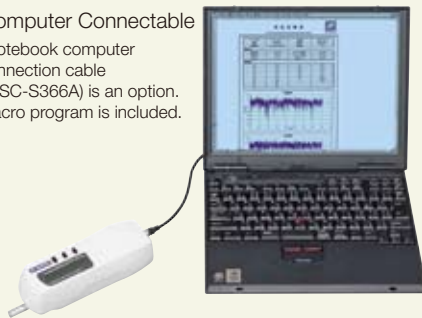


A displacement pickup provides exact and faithful surface roughness measuring. Since the pickup is replaceable, dedicate optional pickups also can be used for very small holes and deep grooves, facilitating a wide range of measurements.

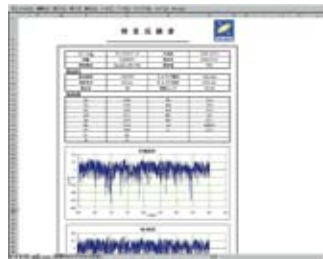
Data Transfer to a Computer

Computer Connectable

*Notebook computer connection cable (E-SC-S366A) is an option. Macro program is included.

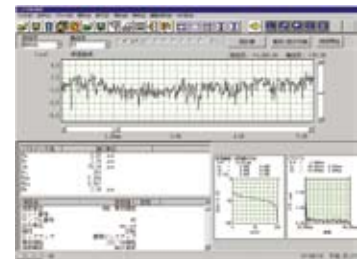


A serial port (RS-232C) provided as standard makes it possible to transfer measuring conditions, parameter values, and profile curve data directly to a computer.



Inspection Report Creation

Data can be imported into a Microsoft EXCEL spreadsheet and used to create an inspection report.



TiMS Light (Option)

High-level analysis can be performed using ACCRETECH TiMS Light integrated measuring system.

Measurements from Any Orientation

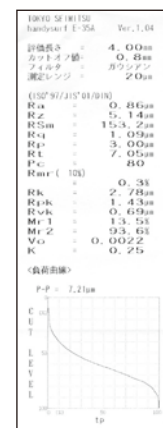
The compact, lightweight design of the HANDYSURF unit enables measuring in horizontally, vertically, tilted, or in any other orientation. The display and drive units can be used together in an integrated configuration or separated to meet specific measuring needs.



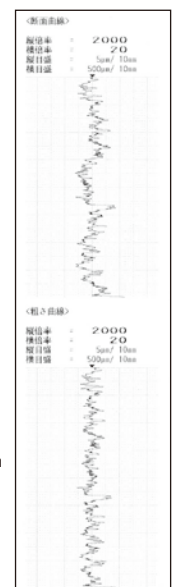
Functions to Support On-site Operation Data Storage/Rechargeable Battery



On-board memory can store 10 sets of measured data for unrestricted output whenever it is required. Both the HANDY-SURF unit and the printer have built-in rechargeable batteries, making them ideal for onsite measuring where power is not available.



Sample of a printout when all functions are selected



◆ Options (For E-35B,E40A)

* Option accessories of E-45A is not on this catalog.



Magnetic Stand For Post Magnet
E-ST-MAC
For Post Magnet $\phi 6$ E-CS-S26A
Post Mount Holder 0102050
For measuring at various heights and angles



Long Hole Extension Adapter
DT57506
For long hole measuring with pickup extended 50mm



Adapter for Side Direction Measurements
DM57507
For measuring 68mm inside from the side of the drive unit



Nose Piece (For Flat Surfaces)
E-WJ-S88A
For handheld measuring of a flat surface whose measuring surface is too small.



Nose Piece (For Cylinders)
E-WJ-S85A
For handheld measuring of a cylinder whose measuring surface is too small



Adapter for Hole Measurements
E-WJ-S86A
For handheld measuring of holes and grooves that run at a right angle to the object being measured.

Specifications

Model		HANDYSURF E-35B	HANDYSURF E-40A	HANDYSURF E-45A
Measuring Range	Z-axis(vertical)	$\pm 160\mu\text{m}$		
	Drive axis	X-axis (horizontal) 12.5mm		Y-axis 4.0mm
Resolution	Z-axis(vertical)	0.01 μm / $\pm 20\mu\text{m}$ ~ 0.08 μm / $\pm 160\mu\text{m}$		
Analysis items	Standards	Complies with JIS-2001, JIS-1994, JIS-1982, ISO-1997, ISO-1984, DIN-1990, ASME-1995, CNOMO		
	Parameters	JIS-2001	Pt, Ra, Rq, Rz, Rzmax, Rp, Rt, R3z, RSm, Pc, Rk, Rpk, Rvk, Mr1, Mr2, VO, K, Rmr	
		Motif	R, Rx, AR, W, Wx, AW, Wte	
Evaluation curves	Profile curve, roughness curve, ISO13565 special curve, roughness motif curve, waviness motif curve, envelope waviness curve			
Filter	Cut-off	Gaussian filter, 2RC filter		
	Cut-off values	λ c:0.08, 0.25, 0.8, 2.5mm	λ s:2.5, 8 μm	λ c:0.08, 0.25, 0.8mm λ s:2.5 μm
Evaluation length	Fixed mode	Cut-off value x 5		
	Arbitrary mode	0.4 to 12.5mm(unit:0.1mm)		0.4 to 4.0mm(unit:0.1mm)
Drive speed	0.6mm/s(return sped 1mm/s)			
Pickup	Movement system	Standard type	Retraction type	Horizontal tracing type
	Sensing method	Differential inductance(displacement type)		
	Stylus	Diamond, 90° cone, 5 μmR	Measuring force 4mN or less	Skid Sapphire, 32mmR(trace direction)
Dimensions, weight & etc.,	Power source	Built-in rechargeable battery(charged with AC adapter) Power consumption Approx. 1VA		
	External dimensions & Weight	210(W) x 70(D) x 60(H)mm Approx. 600g		
Standard accessories	Reference specimen (E-MC-S24B), AC adapter, instruction manual			
	Rear adjustment piece (E-WJ-S64A), Extension cable (E-SC-S255A), Handy case (E-MA-S35A)			Specimen stand (EWJ-S558A), V Nose piece (E-WJ-S536A), Extension cable (E-SC-S466A), Handy case (E-MA-S97A)

◆ Pickups Specifications

Model	E-DT-SM10A	E-DT-SM39A	E-DT-SM11A	E-DT-SM12A	E-DT-SM13A
Application	General measuring (standard)		Small hole(minimum i.d. Φ 6mm)	Extra small hole(minimum i.d. Φ 3mm)	Depth grooves(maximum depth 7mm)
Applicable model	E-35B/40A(standard)	E-45A(standard)	E-35B/40A(option)		
Probe configuration & Measuring force	5 μmR Diamond, d, 90° cone, 4mN or less				
Skid	Sapphire, Trace direction: 32mmR				
Dimensions					

◆ Printer (Option)

Name & Model	Compact Printer E-RC-S29A(DPU-H245)	
Printing method	Thermal line dot	
Recording curves	Profile curve, roughness curve, load curve, roughness motif curve, waviness motif curve, envelope waviness curve	
Recording magnification	Vertical direction(V) 100,200,500,1k,2k,5k,10k,AUTO	Horizontal direction(H) 1,2,5,10,20,50,100,200,AUTO
Weight & Dimensions	Approx. 390g	External dimensions 140(W) x 100(D) x 40(H)mm
Accessories	Recording paper:E-CH-S25A, Connection cable:E-SC-S365A	

Please contact the following branch to order.

KmK instrument ab

KmK instrument ab
Regattagatan 8A
S-723 48 Västerås

Tfn.: +46 21 150 160
Webb: www.kmk-instrument.se
E-Mail: info@kmk-instrument.se