

Surface Texture Measuring Instrument >>>

Super Compact Design Packed with Powerful Functions



HANDYSURF E-35A, E-40A, E-45A



Built-in Drive for Measurement E-35A, E-40A



Cable-connected Drive for Measurement in Tight Locations E-35A, E-40A, E-45A



Supports seven languages!
Supports various national standards!
Computer connectable!

■ E-35A Drive: Standard Type



Popular standard type for on-site measuring
 Power functions in a compact design
 Large memory capacity holds data for 10 measurements.
 Max. measuring range: 12.5mm

■ E-40A Drive: Retraction Type



Detector retracts during measuring standby and after measuring is complete.
 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 Drive: 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 measuring methods.
 Max. measuring range: 4.0mm
 Measuring speed: 0.3mm/s
 *E-45 cannot be built-in to the main unit.

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 ideal 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 also has cleared the European safety standard requirements for CE marking.

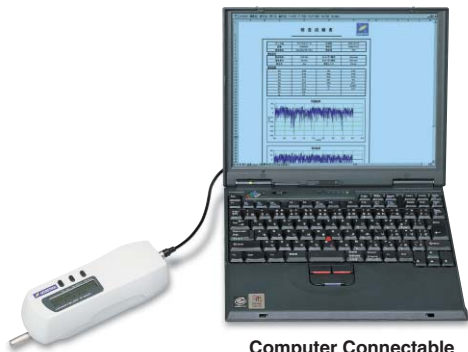


Replaceable Displacement Pickup

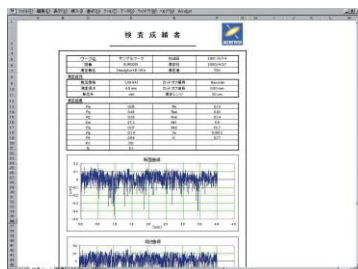
- A displacement pickup provides exact and faithful surface roughness measuring. Since the pickup is replaceable, dedicate optional pickups also can be used for very small holes and deep grooves, facilitating a wide range of measurements.

Data Transfer to a Computer

- 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.

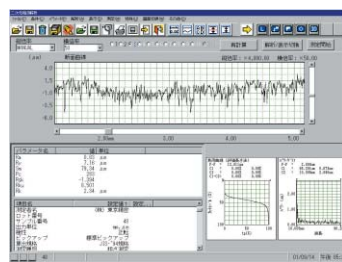


Computer Connectable
*Notebook computer connection cable (E-SC-S248A) is an option.
Macro program is included.



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.

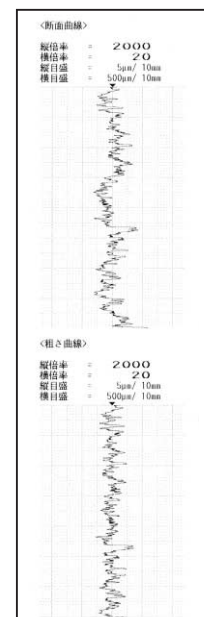


Functions to Support On-site Operation — Data Storage/Rechargeable Battery

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



Sample of a printout when all functions are selected



Options (Contact us about E-45A options.)



Magnetic Stand E-ST-MAC
For Post Magnet Ø6 E-CS-S26A
Post Magnet Holder 0102050
(Option)
For measuring at various heights and angles.



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



Adapter for Side Direction Measurements DT57507 (Option)
For measuring 68 mm inside from the side of the drive unit



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



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



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

Specifications

Model		HANDYSURF E-35A	HANDYSURF E-40A	HANDYSURF E-45A
Measuring Range	Z-axis (vertical)	±160µm		
	X-axis (horizontal)	X-axis 12.5mm		Y-axis 4.0mm
Resolution	Z-axis (vertical)	0.01µm/±20µm-0.08µm/±160µm		
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	Section 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	λc:0.08, 0.25, 0.8, 2.5mm, λs:2.5, 8µm		
Evaluation length	Fixed mode	Cut-off value x 5		
	Arbitrary mode	0.4 to 12.5mm (unit:0.1mm)		0.4 to 6.1mm (unit:0.1mm)
Drive speed	0.6mm/s (return speed 1mm/s)		0.3mm/s (return speed 0.5mm/s)	
Pickup	Movement system	Standard type	Retraction type	Horizontal tracing type
	Sensing method	Differential inductance (displacement type)		
	Stylus	Diamond, 90° cone, 5µmR		
	Measuring Force	4mN or less		
	Skid	Sapphire, 32mmR (trace direction)		
Dimensions and weight	Power source	Built-in rechargeable battery (charged with AC adapter)		
	Power consumption	Approx. 1VA		
	Weight	Approx. 600g		
	External dimensions	210 (W) × 70 (D) × 60 (H) mm		
Standard accessories	Reference specimen (E-MC-S24B), rear adjustment piece (E-WJ-S64A), extension cable (E-SC-S255A), handy case (E-MA-S35A), AC adapter, instruction manual			

●Printer (Option)

Name	Compact Printer II		
Model	E-RC-S25A (DPU-H245)		
Printing method	Thermal line dot		
Recording curves	Section 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	
Dimensions and weight	Weight	Approx. 390g	
	External dimensions	140 (W) × 100 (D) × 40 (H) mm	
Accessories	Recording paper: E-CH-S25A, Connection cable: E-SC-S245A		

●Pickups Specifications

Model	E-DT-SM10A	E-DT-SM11A	E-DT-SM12A	E-DT-SM13A
Application	General measuring (standard)	Small hole (minimum i.d. Ø6mm)	Extra small hole (minimum i.d. Ø3mm)	Depth grooves (maximum depth 7mm)
Measuring Force	4mN or less			
Probe Configuration	5µmR Diamond, 90° cone			
Skid	Sapphire Trace direction: 32mmR			
External dimensions				

* Excel is a trademark of the Microsoft Corporation