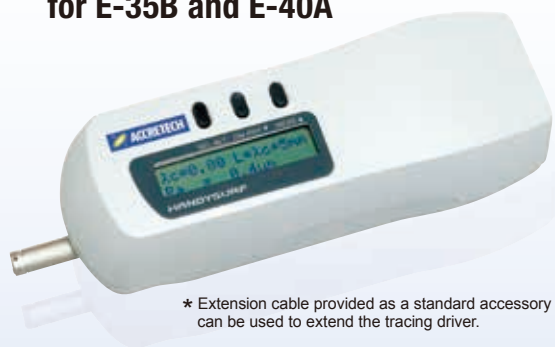




HANDYSURF E-35B E-40A E-45A

Powerful Functions
— Compact and Easy Operation —

Built-in Tracing Driver for E-35B and E-40A



* Extension cable provided as a standard accessory can be used to extend the tracing driver.

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

Cable-connected Tracing Driver for Measurement in Tight Locations with E-35B, E-40A and E-45A

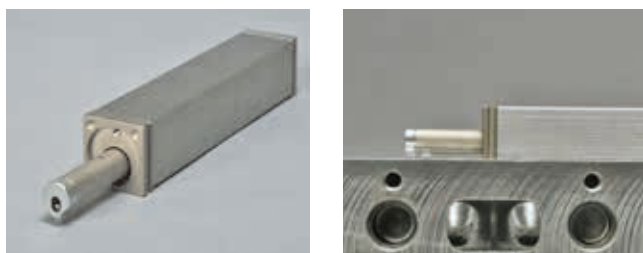


E-35B Tracing Driver: Standard Type



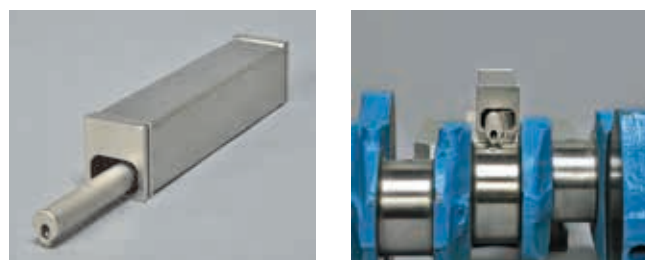
Popular standard type for on-site measuring
Powerful functions in a compact design.
Large memory capacity holds 10 measurement data.
Max. measuring range: 12.5 mm

E-40A Tracing Driver: Retraction Type



Detector retracts during standby and after measuring
Reduces risk of probe and pickup damage.
Supports use of pickup with automated devices built-in.
Retraction amount: 1.5 mm
Max. measuring range: 12.5 mm

E-45A Tracing Driver: Horizontal Tracing Type



**Suitable for constricted locations
such as crankshaft pins, journals, etc.**
Allows highly efficient axial direction measurement using horizontal tracing in a constricted location where conventional measurement is difficult. * E-45A cannot be built-in to a main unit.
Max. measuring range: 4.0 mm
Measuring speed: 0.6 mm/s



Sample combination of a tracing driver and height gage
Optional post mount (E-CS-S26A) and height gage adapter (E-WJ-S93A) are required.

HANDYSURF Lineup

HANDYSURF provides a choice of types to meet the needs of a wide range of applications. In addition to the standard type, both a 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.

AI Function for Easy Operation

The AI function automatically configures optimum conditions for measuring range, evaluation length, cut-off value, and recording magnification (when a printer is being used).

Can be Used Anywhere in the World

HANDYSURF conforms to ISO, JIS (2001, 1994, 1982), ASME, CNOMO and other international standards. It supports operation in English, Japanese, German, French, Italian, Spanish and Portuguese. It meets European safety standard requirements for CE marking.

Replaceable Displacement Pickup

A displacement pickup provides precise surface roughness measurement. Since the pickup is replaceable, optional pickups specialized for file holes and deep grooves can also be used, facilitating a wide range of measurements.

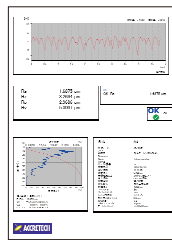
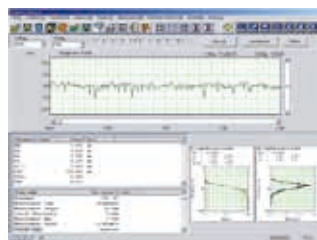
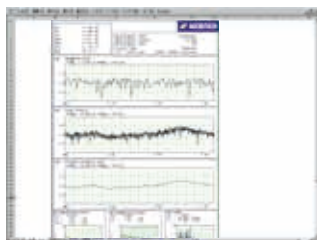
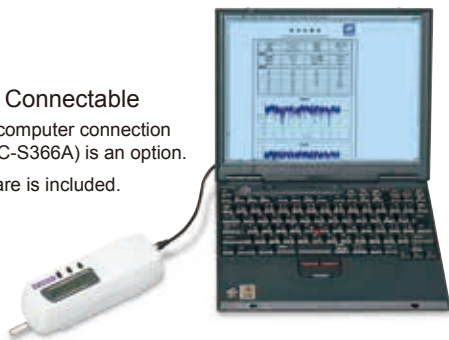


Data Transfer to Computer

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

Computer Connectable

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



Inspection Report Creation (Support ware)

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

TIMS Light (Option)

Advanced analysis can be performed using ACCRETECH TIMS Light integrated measuring system.

ACCTee

TIMS Light and ACCTee equivalent to the software installed in high grade models enable advanced analysis.

Measurements from Any Orientation

The compact, lightweight design of the HANDYSURF enables measurement from any orientation – horizontally, vertically, or tilted. The display and tracing driver can be used together in an integrated or separated configuration to meet specific measuring needs (E-35B, E-40A).

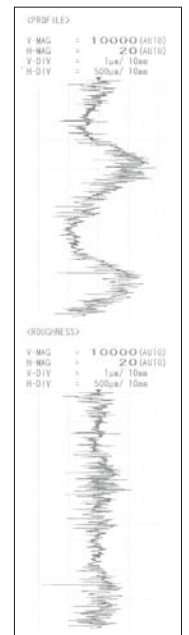
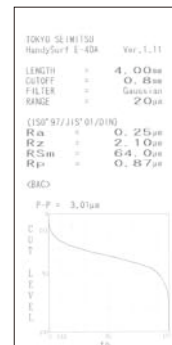


Functions to Support On-site Operation Data Storage/ Rechargeable Battery

On-board memory can store 10 sets of measurement 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 measurements.



Compact printer III
E-RC-S30A



Sample of printout with all functions selected

Option (for E-35B, E-40A)



Magnetic Stand E-ST-MAC
For Post Mount Φ 6 E-CS-S26A
Post Mount Holder 0102050
For measuring at various heights and angles.



Long Hole Extension Adapter DM57506
For long hole measuring with pickup extended 50 mm.



Adapter for Horizontal Direction Measurements DM57507
For measuring 68 mm inside from the side of the tracing driver.



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.

HANDYSURF Specifications

| Model | | HANDYSURF | | | | | |
|----------------------------------|--|--|--|---------------------|-----------------------------|---|------------|
| | | -35B | | -40A | | -45A | |
| | | 5 μ mR | 2 μ mR | 5 μ mR | 2 μ mR | 5 μ mR | |
| Measuring range | Z-direction | $\pm 160 \mu$ m | | | | | |
| | Drive axis | X-direction 12.5 mm | | | Y-direction 4.0 mm | | |
| Resolution | Z-direction | 0.01 μ m/ $\pm 20 \mu$ m to 0.08 μ m/ $\pm 160 \mu$ m | | | | | |
| | Standard | Complied with JIS-2001/-1994/-1982, ISO-1997, DIN-1990, ASME-1995, CNOMO | | | | | |
| Analysis items | JIS-2001 Parameter | Cross section/Roughness measurement Ra, Pa, Pq, Pt, Rz, Rz.J, Rzmax, Rq, Rp, Rt, R3z, RSm, Pc, AVH, Hmax, Hmin, Pmr, Rmr, Rk, Rpk, Rvk, Mr1, Mr2, Vo, K | | | | | |
| | Motif | R, Rx, AR, W, Wx, AW, Wte | | | | | |
| Filter | Evaluation curve | Section profile curve, roughness curve, ISO13565 special roughness curve, roughness motif curve, waviness motif curve, envelope waviness curve | | | | | |
| | Cutoff | Gaussian filter, 2RC filter (non-phase compensation type) (JIS'82) | | | | | |
| | Cutoff value | λ c | 0.08, 0.25, 0.8, 2.5 mm | | | 0.08, 0.25, 0.8 mm | |
| Evaluation length | λ s | 2.5, 8 μ m | | | 2.5 μ m | | |
| | Drive speed | 0.4 mm to 12.5 mm (Unit: 0.1 mm) | | | | | |
| Pickup | Movement system | Standard type | | Retraction type | | Horizontal tracing type | |
| | Sensing method | Differential inductance (displacement type) | | | | | |
| | Measuring force | 4 mN or less | 0.75 mN or less | 4 mN or less | 0.75 mN or less | 4 mN or less | |
| | Tip | Diameter | 5 μ mR | 2 μ mR | 5 μ mR | 2 μ mR | 5 μ mR |
| | | Angle | 90° cone | 60° cone | 90° cone | 60° cone | 90° cone |
| | | Material | Diamond | | | | |
| Measuring method | Skid: Sapphire, 32 mmR (tracing direction) | | | | | | |
| Data processor unit | Display | LCD 16 figures \times 2 lines with sleep mode | | | | | |
| | Data output | Communication function | Connector supporting RS232C, one port mounted | | | | |
| | Printer | Printer (Option): thermal recording paper (roll) Width: 58 mm (Recording width: 48 mm) | | | | | |
| Other | Language | Japanese, English, German, French, Italian, Spanish, Portuguese | | | | | |
| | Power source | Charge | Built-in rechargeable battery (charged with AC adapter), Charging time: 10 hours | | | | |
| | | Voltage | AC adapter single-phase AC 100 V/120 V/220 V/230 V | | | | |
| | Power consumption | Approx. 1 VA | | | | | |
| Dimension (W x D x H) and weight | 180 mm \times 68 mm \times 54 mm, Approx. 600 g | | | | | | |
| Accessories | Reference specimen (E-MC-S24B), AC adapter, operation manual | | | | | | |
| | Pickup (E-DT-SM10A) | Pickup (E-DT-SM49A) | Pickup (E-DT-SM10A) | Pickup (E-DT-SM49A) | Pickup (E-DT-SM39A) | | |
| | Tracing driver (E-RM-S173A) | | Tracing driver (E-RM-S168A) | | Tracing driver (E-RM-S167A) | | |
| | Rear adjustment device (E-WJ-S64A) | | | | | Stand for specimen (E-WJ-S558A) | |
| | Tracing driver extension cable (E-SC-S255A) | | | | | V-shape nose piece (E-WJ-S536A) | |
| | Handy case (E-MA-S35A) | | | | | Tracing driver cable (E-SC-S466A) Handy case (E-MA-S97A) | |

Pickup Specifications

| Model | E-DT-SM10A | E-DT-SM49A | E-DT-SM39A | E-DT-SM11A | E-DT-SM12A | E-DT-SM13A |
|------------------|------------------------------------|--------------|--------------------|---|---|-------------------------------|
| Application | General measuring | | Horizontal tracing | Fine hole (min. inner dia. Φ 6 mm) | Extra fine hole (min. inner dia. Φ 3 mm) | Deep groove (max. depth 7 mm) |
| Applicable model | E-35B, E-40A | E-35B, E-40A | E-45A | Option for E-35B, E-40A | | |
| Measuring force | 4 mN | 0.75 mN | 4 mN | | | |
| Pickup tip | Diameter | 5 μ m | 2 μ m | 5 μ m | | |
| | Angle | 90° cone | 60° cone | 90° cone | | |
| | Material | Diamond | | | | |
| Skid | Sapphire Tracing direction: 32 mmR | | | | | |
| Dimension | | | | | | |

*Maximum measuring length is 8mm when used with HANDY SURF E-40A.

Printer (Option)

| Name/Model | Compact Printer III E-RC-S30A (DPU-S245-00A-E) |
|-------------------------|--|
| Printing method | Thermal line dot |
| Recording curves | Section profile curve, roughness curve, BAC, roughness motif curve, waviness motif curve, envelope waviness curve |
| Recording magnification | Vertical direction: 100, 200, 500, 1 k, 2 k, 5 k, 10 k, Auto Horizontal direction (H): 1, 2, 5, 10, 20, 50, 100, 200, Auto |
| Other | Power supply: AC adapter 100 V, 120 V, 230 V Weight: Approx. 280 g Dimension: 83 mm \times 130 mm \times 45 mm |
| Accessories | Connecting cable (E-SC-S527A), Power cable, Recording paper (E-CH-D26A (2 rolls)) |