

# Linear Height

## SERIES 518 — High Performance 2D Measurement System

### FEATURES

- Excellent accuracy of  $(1.3+0.6L/600)\mu\text{m}$  with  $0.1\mu\text{m}/0.5\mu\text{m}$  resolution / repeatability.
- Perpendicularity (frontal) of  $6\mu\text{m}$  and straightness of  $4\mu\text{m}$  are guaranteed.
- Pneumatic full / semi-floating system allows adjustment of air-cushion height.
- Basic statistical functions are provided and, additionally, RS-232C data output provides the option of evaluating measurement data externally with SPC software on a PC.
- One-key operation for running a semi-automatic measurement.
- Data entry from a Digimatic tool.
- Choice of message language in English, German, French, Spanish, Italian, Dutch, Portuguese, Swedish, Czech, Hungarian, Slovenian, Polish, Traditional Chinese\*, Korean\*\* and Japanese for user-friendly operation.

\*Optional \*\*518-341K and 518-342K only



518-341A-21



518-342A-21  
(with power grip)



### SPECIFICATIONS

Inch/Metric	
Order No.	Remarks
518-341A-21 / 518-342A-21*	120V w/ English manual
518-341A-22 / 518-342A-22*	120V w/ Spanish manual
518-341D-21 / 518-342D-21*	220V w/ English manual
518-341D-22 / 518-342D-22*	220V w/ Spanish manual
518-341D-23 / 518-342D-23*	220V w/ German manual
518-341D-24 / 518-342D-24*	220V w/ French manual
518-341D-25 / 518-342D-25*	220V w/ Italian manual
518-341E-21 / 518-342E-21*	220V w/ English manual
518-341DC / 518-342DC*	220V w/ Chinese manual
518-341K / 518-342K*	220V w/ Korea manual

\*Power grip pre installed models



(Refer to the page 9 for details.)

### Technical Data

- Measuring range: 0 - 972mm
- Slider stroke: 600mm
- Resolution: 0.0001 / 0.001 / 0.01 / 0.1mm or (switchable) 0.0001" / 0.001" / 0.01" / 0.1mm / .00001" / .00001" / .0001" / .001"
- Accuracy at 20°C:  $(1.3+0.6L/600)\mu\text{m}$   
L = Measuring length (mm)
- Repeatability (2σ): Plane: 0.5μm, Bore: 1μm
- Perpendicularity\*: 6μm
- Straightness: 4μm
- Drive method: Manual / motor (5 - 40mm/s, 7 steps)
- Measuring force: 1N
- Balancing method: Counter balance
- Floating method: Full / semi-floating with built-in air compressor
- Display: Graphic LCD (320 x 240 dot, with back light)
- Language for display: English / German / French / Spanish / Italian / Dutch / Portuguese / Swedish / Czech / Hungarian / Slovenian / Polish / Traditional Chinese (optional) / Korean (518-341K and 518-342K) / Japanese
- No. of stored programs: 50 programs (max.)
- No. of stored data: 60,000 data (max.)
- Power supply: AC adapter / battery (Ni-MH)
- Battery operation time: Approx. 5 hours (air floating & slider elevation : 25%)

\*It is guaranteed when using the standard eccentric φ5 probe.

**Perpendicularity measurement**

88.9774 [mm]

Perpendicularity [(-0.10, 0.00, 00.00)]

V = 0.4100 [mm]

A = 89.5254 [mm]

B = 0.0029 [mm]

**Circle measurement**

76.6408 [mm]

Circle (hole)

Z = 69.9991 [mm]

D = 40.0125 [mm]

**Histogram**

99-999502

Range 0.2000

Stdev-13 0.000007

Schar-SS (n-1) 100.025724

Schar-3S (n-1) 99.972000

Cp 0.370467

Cpk 0.262006

Cu 0.282605

Cpk 0.264005

**SPC results**

## Optional Accessory

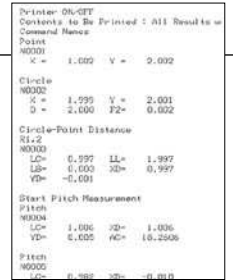
- 12AAC072:** Depth probe
- 12AAC073:**  $\phi 20$ mm taper probe
- 12AAA787:** Block for calibrating probe diameter (applicable to taper probe)
- 12AAA792:** Dial indicator ( $\phi 8$ mm stem) holder
- 12AAA837:** Dial indicator ( $\phi 3/8$ " stem) holder
- 12AAA793:** Probe extension holder (85mm/3.3")
- 12AAB136:**  $\phi 10$ mm cylindrical probe
- 932361:** Mu-checker lever head holder
- 12AAF666:**  $\phi 1$ mm ball probe
- 12AAF667:**  $\phi 2$ mm ruby ball probe
- 957261:**  $\phi 2$ mm ball probe
- 957262:**  $\phi 3$ mm ball probe
- 957263:**  $\phi 4$ mm ball probe
- 12AAB552:**  $\phi 10$ mm ball probe, L = 55mm
- 12AAF668:**  $\phi 10$ mm ball probe, L = 82mm
- 12AAF669:**  $\phi 10$ mm ball probe, L = 120mm
- 12AAF670:**  $\phi 5$ mm disk probe
- 12AAF671:**  $\phi 10$ mm disk probe
- 957264:**  $\phi 14$ mm disk probe
- 957265:**  $\phi 20$ mm disk probe
- 12AAF672:**  $\phi 1$ mm ball offset probe
- 12AAF673:**  $\phi 2$ mm ball offset probe
- 12AAA788:**  $\phi 4$ mm ball offset probe
- 12AAA789:**  $\phi 6$ mm ball offset probe
- 226116:** Test indicator ( $\phi 6$ mm stem) adapter
- 226117:** M2 CMM stylus adapter
- 226118:** M3 CMM stylus adapter
- \_\_\_\_\_: CMM ball and disk hard probes are available.
- 12AAF712:** Battery pack
- 12AAG245:** Large capacity battery pack
- 12AAF675:** Large capacity battery set
- 12AAA796:** Thermal receipt printer (220V)
- 12AAA797:** Thermal receipt printer (120V)
- 12AAA802:** Thermal receipt printing paper (10 pcs.)
- 12AAA804:** Cable for page printer (2m)
- 12AAA807:** RS-232C cable (2m/80")
- 12AAG920:** RS-232C cable (3m/118")
- 12AAH035:** USB-FDD unit



USB-FDD unit

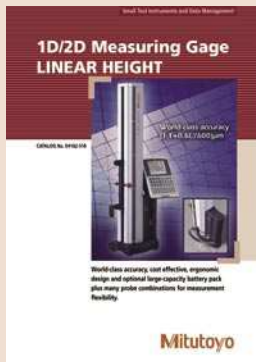
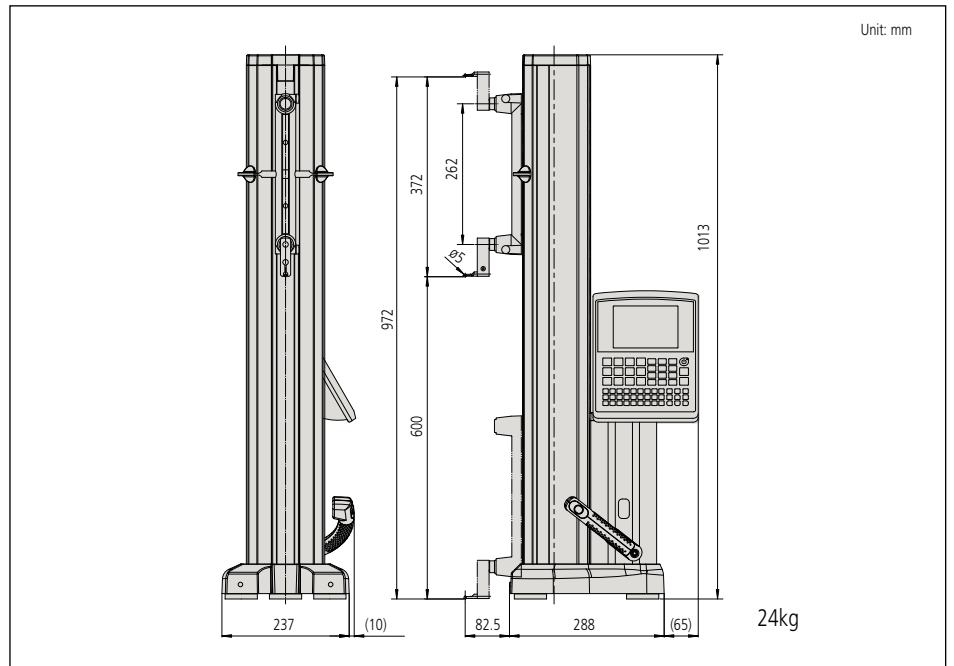


Thermal receipt printer



Sample of printout

## DIMENSION AND MASS



Refer to the Linear Height leaflet (E4162) for more details.

