Linear Height
SERIES 518 — High-performance 2D Measurement System

- This is a precision height gage featuring high accuracy and outstanding ease of use. It is useful not only in height measurement but also in a wide range of applications such as inspection of moulds and precision parts.
- Easy operation using keypad and touch screen navigation allows intuitive operation that is suitable even for beginners.
- The built-in scale is dirt-resistant and can be reliably used on shop floors.
- Various interfaces are available, including connection to a printer, a PC, and our wired or wireless communication system.
- Pneumatic full/semi-floating suspension system allows adjustment of air-cushion height.
- It is easily expandable to support various types of optional probes to meet your different measurement needs.

518-361-11

SPECIFICATIONS

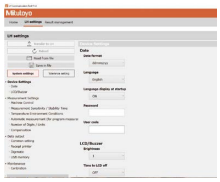
Model		LH-600F	LH-600FG
Code No.	mm	518-360-11	518-361-11
	inch/mm	518-360-13	518-361-13
Power grip		Without power grip	With power grip
Measuring range (Stroke)		0 to 977 mm (600 mm) 0 to 38 in (24 in)	
Resolution		0.0001/0.001/0.01/0.1 mm (selectable) 0.000001/0.00001/0.0001/0.001 in (selectable)	
Accuracy	Indication accuracy*1	± (1.1 + 0.6L/600) µm, L= Arbitrary measuring height (mm)	
	Repeatability*1	Plane: 0.4 µm (2σ), Hole: 0.9 µm (2σ)	
	Perpendicularity (forward and backward)*2	5 µm	
	Straightness (forward and backward)*2	4 µm	
Driving method (speed)		Motor-driven (5, 10, 15, 20, 25, 30, 40 mm/s: 7 steps)/Manual	
Scale unit		Photoelectric incrermental encoder STVC-20Z	
Measuring force		1 N (automatic constant-force function)	
Main unit moving mode		Full-floating (moving)/Semi-floating (measuring) Air bearing (built-in compressor)	
Display unit		8.4 inch touch-screen, LCD	
Adjustment of display unit		Stepless tilt adjustment: 0 to 40° Stepless swivel adustment: -30 to 180°	
Preventive maintenance		Scale status notification, calibration schedule notification	
Probe diameter compensation		Semi-automatic compensation using the probe diameter calibration block (standard accessory) Compensation by inputting the probe diameeter	
Power source		AC adapter 100-240 V±10% 50/60 Hz/Battery (NiMH)	
Battery operation time*3		Battery powered (standard): 4 hours*4, Powered by 2 batteries: 8 hours	
Battery charging time*5		Approx. 3.5 hours (can be used while charging)	
Dimensions (W×D×H)		238×492×996 mm	
Mass		26.1 kg	26.6 kg
Operating temperature/humidity ranges		5 to 40 °C/20 to 80% RH (non-condensing)	
Data output		Digimatic D1/D2/S1 (bi-directional communication)	

• Use in an environment that is as close as possible to 20 ˚C, and subject to minimal temperature change over time.
*1: Indication accuracy and repeatability represent the values obtained when the standard ø5 stepped prove is used.
*2: Guaranteed when using the Lever Head (**519-521**) and Mu-Checker (**519-561**).
*3: 25% operation of vertical movement by suspension and motor
*4: One battery pack (**12AAF712**) is provided as standard.
*5: When ambient temperature is 30 °C or higher, the battery may not charge sufficiently.

LH Communication-Tool V1.0 software for creating inspection reports and configuring system settings

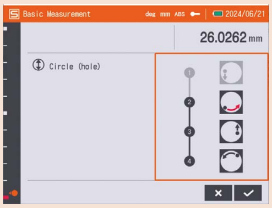
You can easily create and save inspection reports and configure device parameters.

* Available at Mitutoyo website for free download.
* To connect to a PC, use a USB cable (type A-B).

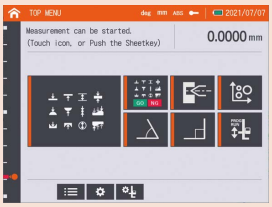




Adjustable to easy-to-see angle

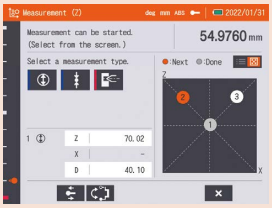
Measurement guidance



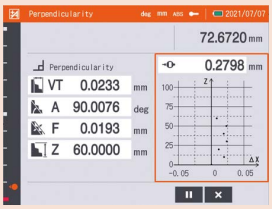
Intuitive operation thanks to guidance



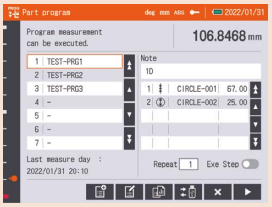
Home screen
Measurement menu display is easy to understand visually. The guidance makes it easy for first-time users to operate the system.



2D measurement - Pre-placement -
This function allows the user to register the hole position of the workpiece before measurement.



Perpendicular/straightness measurement - Graph creation -
You can check the measurement results of perpendicularity and straightness in real time during measurement.



Part program measurement
You can easily create, execute, edit, and even display the results of part programs.

Product catalog E12012

Video

Mitutoyo reserves the right to change any or all aspects of any product specification, including prices, designs and service content, without notice.

Optional products for outputting measurement data

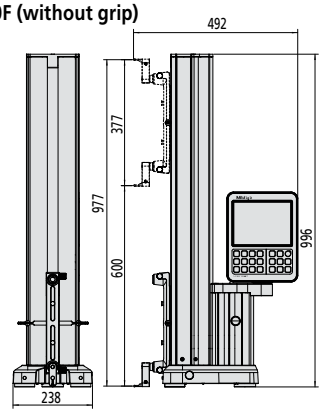
Code No.	Product name
12AAY481	Receipt printer (for Japan)*1
12AAY482	Receipt printer (for North America)*1
12AAY483	Receipt printer (for EU countries, excluding the UK)*1
12AAY484	Receipt printer (for the UK)*1
12AAN052	Printer paper for receipt printer (set of 10)
12AAY485	Printer mounting attachment
12AAN146	Connection cable for printer
—	(USB memory device)*2
12BAF812	USB cable (type A - type B) (2 m)
543-700B	Digimatic indicator (**ID-C0512NXB**)
543-701B	Digimatic indicator (**ID-C0512MNXB**)
519-521	Lever head probe **MLH-521**
519-561	Mu-checker **M-561**
936937	Digimatic cable (1 m)
965014	Digimatic cable (2 m)
264-505	Digimatic mini processor (**DP-1VA**)
264-020	Input tool (**IT-020U**)
06AGQ001F	Input tool (**USB-ITN-SF**)
06AGL011	Bidirectional digimatic S1 cable, Flat and straight (1 m)
06AGL021	Bidirectional digimatic S1 cable, Flat and straight (2 m)
12AAJ088	Foot switch
02AZD810D	**U-WAVE-R**
02AZD730G	**U-WAVE-T** (IP67 type)
02AZD880G	**U-WAVE-T** (Buzzer type)
12AAY486	**U-WAVE T** mounting bracket
02AZG011	Bidirectional Digimatic S1 cable for **U-WAVE-T** (160 mm)
264-626	**U-WAVE-TMB** (IP67 type)
264-627	**U-WAVE-TMB** (Buzzer type)

*1 A small printer (optionally battery-powered) that can be mounted on the main unit.
It includes a printer cable and mounting bracket.
*2 USB memory devices should be formatted with FAT16/32. NTFS and exFAT are not supported.

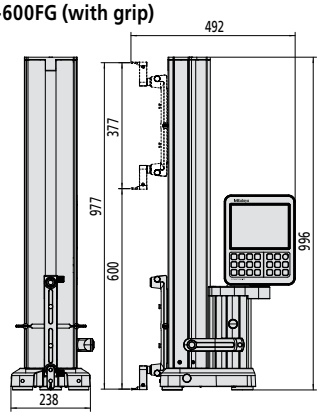
DIMENSIONS

Unit: mm

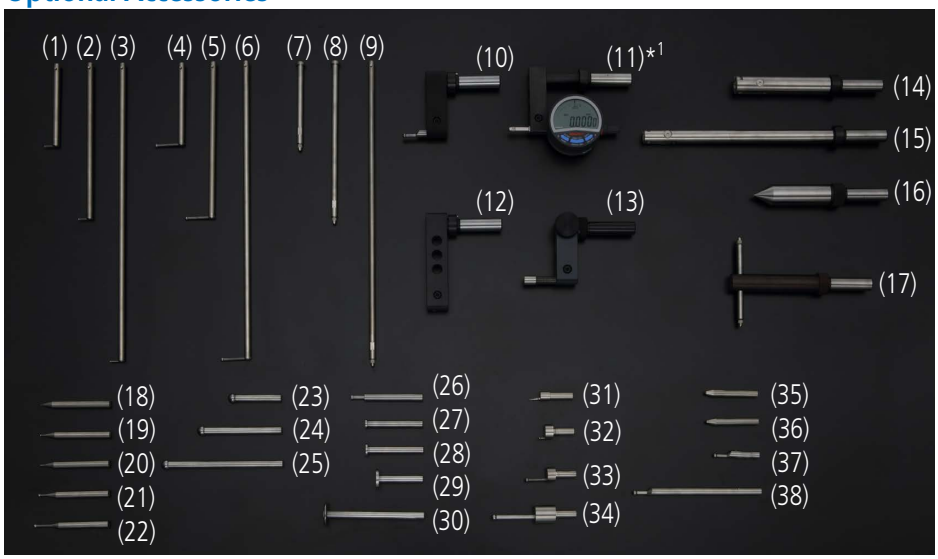
LH-600F (without grip)



LH-600FG (with grip)



Optional Accessories



No.	Code No.	Item
(1)	**12AAY602**	Depth stylus 70 ø2 ball
(2)	**12AAY603**	Depth stylus 150 ø2 ball
(3)	**12AAY604**	Depth stylus 300 ø2 ball
(4)	**12AAY605**	Depth stylus 70 ø4 ball
(5)	**12AAY606**	Depth stylus 150 ø4 ball
(6)	**12AAY607**	Depth stylus 300 ø4 ball
(7)	**12AAY599**	Depth stylus 70
(8)	**12AAY600**	Depth stylus 150
(9)	**12AAY601**	Depth stylus 300
(10)	**12AAY343**	ø5 stepped probe (standard accessory)
(11)	**12AAA792** **12AAA837**	Dial indicator holder (mm type)*1 Dial indicator holder (inch type)*1
(12)	**12AAA793**	Probe extension holder
(13)	**12AAB136**	ø10 mm cylindrical probe
(14)	**12AAY595**	Extension holder 100
(15)	**12AAY596**	Extension holder 200
(16)	**12AAC073**	Tapered probe (ø20)
(17)	**12AAC072**	Depth probe
(18)	**12AAF666**	ø1 mm ball probe (coaxial type)
(19)	**957261**	ø2 mm ball probe (coaxial type)

No.	Code No.	Item
(20)	**12AAF667**	ø2 mm ball probe (coaxial type) Ruby ball
(21)	**957262**	ø3 mm ball probe (coaxial type)
(22)	**957263**	ø4 mm ball probe (coaxial type)
(23)	**12AAB552**	ø10 mm ball probe (coaxial type)
(24)	**12AAF668**	ø10 mm ball probe (coaxial type) L: 82 mm
(25)	**12AAF669**	ø10 mm ball probe (coaxial type) L: 120 mm
(26)	**12AAF670**	ø5 mm disk probe
(27)	**12AAF671**	ø10 mm disk probe
(28)	**957264**	ø14 mm disk probe
(29)	**957265**	ø20 mm disk probe
(30)	**12AAY598**	ø25 disk stylus
(31)	**12AAF672**	ø1 mm ball offset probe
(32)	**12AAF673**	ø2 ball stylus (eccentric type)
(33)	**12AAA788**	ø4 mm ball offset probe
(34)	**12AAA789**	ø6 mm ball offset probe
(35)	**226118**	M3 CMM stylus adapter*2
(36)	**226117**	M2 CMM stylus adapter*2
(37)	**05HAA394**	ø5 ball stylus*3
(38)	**12AAY597**	ø5 ball stylus L130
	12AAF712	Additional battery pack

*1 A dial indicator is not included.
*2 For enabling CMM stylus to be used.
*3 The stylus is attached to ø5 stepped probe (**12AAY343**) and provided as standard.
Note 1: A gauge block may be required for zero-setting depending on the probe and contact point.
Note 2: Refer to the **E12012** catalog for more details.

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