

Height Gage

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

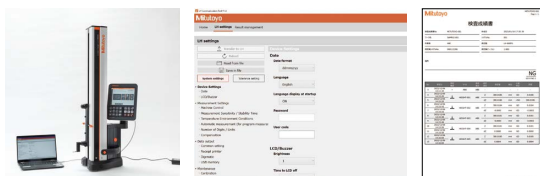
Model		LH-600F	LH-600FG
Code No.	mm inch/mm	518-360-11 518-360-13	518-361-11 518-361-13
Power grip		Without power grip	With power grip
Measuring range (Stroke)		0 to 977 mm (600 mm) 0 to 38 in (24 in)	
Resolution		0.0001/0.001/0.01/0.1 mm (selectable) 0.000001/0.00001/0.0001/0.001 in (selectable)	
Accuracy	Indication accuracy*1	$\pm (1.1 + 0.6L/600) \mu\text{m}$, L = Arbitrary measuring height (mm)	
	Repeatability*1	Plane: $0.4 \mu\text{m}$ (2σ), Hole: $0.9 \mu\text{m}$ (2σ)	
	Perpendicularity (forward and backward)*2	$5 \mu\text{m}$	
	Straightness (forward and backward)*2	$4 \mu\text{m}$	
Driving method (speed)		Motor-driven (5, 10, 15, 20, 25, 30, 40 mm/s: 7 steps)/Manual	
Scale unit		Photoelectric incremental 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 adjustment: -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 diameter	
Power source		AC adapter 100-240 V $\pm$ 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 (WxDxH)		238x492x996 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 $\phi 5$ stepped probe 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).

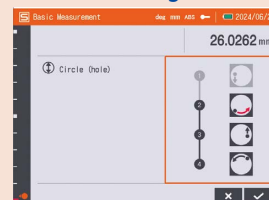


DIGIMATIC S1

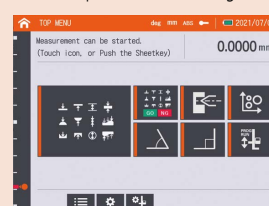
Adjustable to easy-to-see angle



Measurement guidance

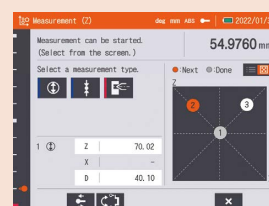


Intuitive operation thanks to guidance

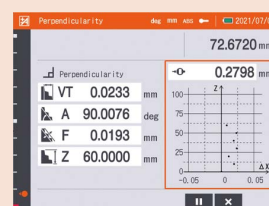


Home screen

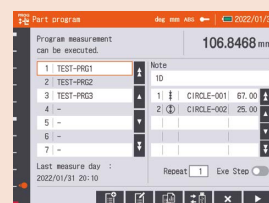
Measurement menu display is easy to understand visually. The guidance makes it easy for first-time users to operate the system.



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.

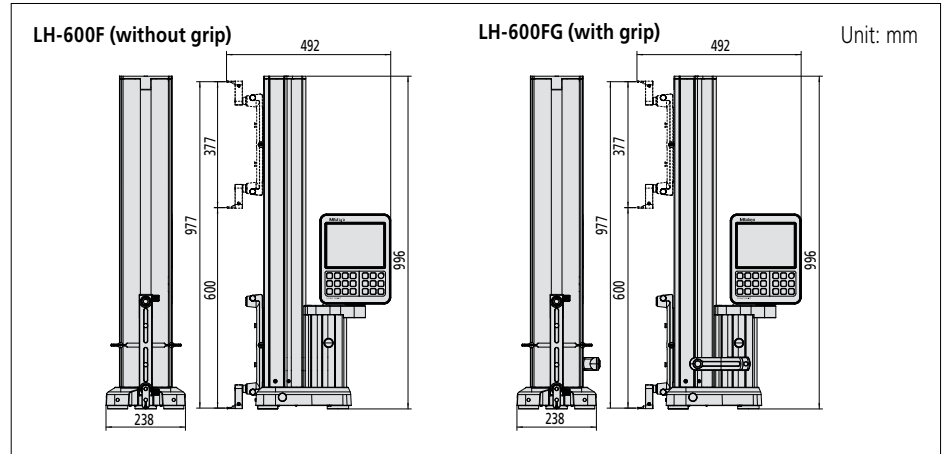
Optional products for outputting measurement data

Code No.	Product name
12AAAY481	Receipt printer (for Japan)* ¹
12AAAY482	Receipt printer (for North America)* ¹
12AAAY483	Receipt printer (for EU countries, excluding the UK)* ¹
12AAAY484	Receipt printer (for the UK)* ¹
12AAN052	Printer paper for receipt printer (set of 10)
12AAAY485	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)
264-506	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)
12AAAY486	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)

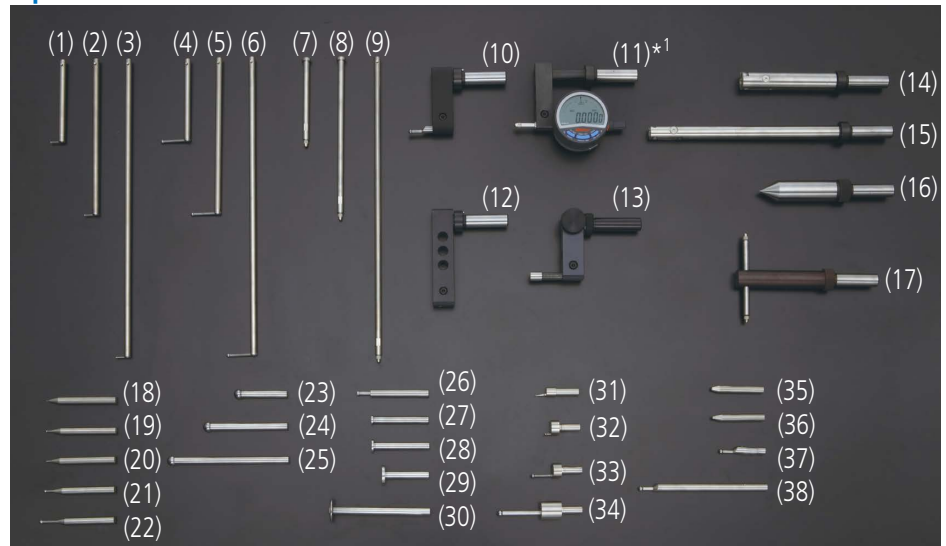
*1 A small printer (optionally battery-powered) that can be mounted on the main unit.
It includes a printer cable and mounting bracket.

*2 USB memory devices should be formatted with FAT16/32. NTFS and exFAT are not supported.

DIMENSIONS



Optional Accessories



No.	Code No.	Item
(1)	12AAAY602	Depth stylus 70 ø2 ball
(2)	12AAAY603	Depth stylus 150 ø2 ball
(3)	12AAAY604	Depth stylus 300 ø2 ball
(4)	12AAAY605	Depth stylus 70 ø4 ball
(5)	12AAAY606	Depth stylus 150 ø4 ball
(6)	12AAAY607	Depth stylus 300 ø4 ball
(7)	12AAAY599	Depth stylus 70
(8)	12AAAY600	Depth stylus 150
(9)	12AAAY601	Depth stylus 300
(10)	12AAAY343	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)	12AAAY595	Extension holder 100
(15)	12AAAY596	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)

*1 A dial indicator is not included.

*2 For enabling CMM stylus to be used.

*3 The stylus is attached to ø5 stepped probe (**12AAAY343**) 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.

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)	12AAAY598	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)	12AAAY597	ø5 ball stylus L130
	12AAF712	Additional battery pack