

HIGH-PERFORMANCE HEIGHT GAGE QM-HEIGHT SERIES

World's best-in-class accuracy 4.5 μ m

SMALL TOOL INSTRUMENTS
AND DATA MANAGEMENT



High-Performance Height Gage QM-Height Series

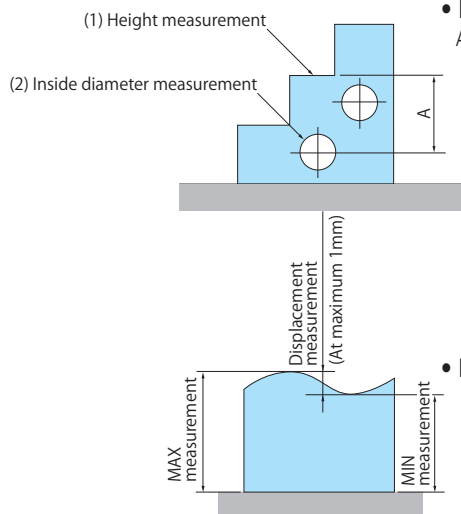
- **Best-in-class accuracy $\pm(2.4+2.1L/600)\mu\text{m}$**
- **Built-in pneumatic flotation system enables smooth movement along the surface plate.**
(Low-cost version with no pneumatic flotation system also available)
- **Easy-to-view, simple control panel allows performance of main measurements with a single key.**
- **A battery life of 300 hours in continuous use with four AA batteries.**
(Also works with four commercially available NiMH AA rechargeable batteries)
- **A full range of options are provided to enhance operability, including a variety of probe contact points, output to a PC via USB Input Tool Direct and wireless output via a U-Wave transmitter.**

Go/no-go judgment by LED (red, orange, green) and measurement examples

- LEDs are activated at the time of tolerance judgment – green for Go, red for +NG, and orange for -NG. (-NG, GO and +NG also appear on the LCD.)



Measurement Example



- Pitch measurement (displayed on bottom level)
A (the pitch) will be displayed on bottom by measuring (1) and (2).

ABS mm
45.000 Z ← Top: Measurement
(e.g. height, diameter)
20.000 ZP ← Bottom: Pitch (A)

- Maximum/minimum and displacement measurement

Inside/outside diameters, maximum/minimum heights and displacement can be measured using a standard probe

- Besides height measurement, Mitutoyo's proprietary mechanism and firmware enables scanning measurement of inside/outside diameters, maximum/minimum heights and displacement.



QM-Height measures height, inside/outside widths, inside/outside diameters, circle pitch (height components), free-form surface maximum/minimum heights and displacement by scanning measurement*. It also remembers the preceding measurement (height component) and displays the difference (pitch) between results below the measurement.

*Scanning measurement stroke is approx 1mm above and below from the start point of measurement.

Remembers an origin point once it has been set

- Does not have to be reset each time the system is turned on.
Note: Origin needs to be reset in the event of major environmental changes

External output

- Digimatic and USB output are provided as standard.
- U-Wave wireless output (optional)



When attaching U-WAVE, the optional mounting plate (No. 02AZE990) is recommended.

Simple button layout and user-friendly icon keys

- Frequently used keys are indicated with icons.
- An ergonomic cross key configuration enhances operability for setting presets and other settings.

Power supply

- Four alkaline AA batteries (standard accessories)
- Also operates on four commercially available NiMH AA rechargeable batteries
- AC adapter (standard accessory)

Probe elevation wheel

- Allows for fine/coarse adjustment during measurement

Pneumatic flotation system

- Pressing a button on the grip activates the internal pump. The base rises and moves smoothly along the surface plate.

Note: Measurements cannot be made during flotation.

Note: Factory installed pneumatic system only available on 64PKA129A & 64PKA130A.



Options expand measurement possibilities

Part no.	Item
Depth measurement	
12AAC072	Depth probe
Interchangeable contact points for ø5 stepped probe	
957261	ø2 ball (coaxial type)
957262	ø3 ball (coaxial type)
957263	ø4 ball (coaxial type)
957264	ø14 disk
957265	ø20 disk
12AAA788	ø4 ball (eccentric type)
12AAA789	ø6 ball (eccentric type)
Special Holder, Special Probe	
12AAA792	Holder for Dial Gage
12AAA793	Long holder
AC adapter	
06AEG180JA	AD620JA (JAPAN/U.S.A.)
SPC connecting cables	
936937	1m cable
965014	2m cable
Others	
05HZA143	9 × 9 adapter (requires the following clamp)
05GZA033	Scriber Clamp (for 9 × 9 adapter)
05HZA144	6.35 × 12.7 adapter (requires the following clamp assembly)
901385	Clamp (for 6.35 × 12.7 adapter)
02AZE990	U-WAVE mounting plate

A gage block may be required for zero-setting depending on the probe and contact point.

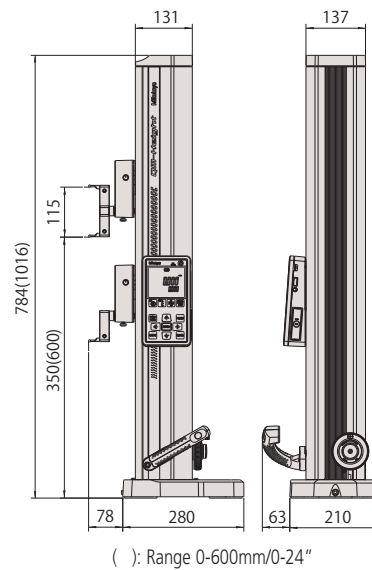
SPECIFICATIONS

Order No.	64PKA094A	64PKA095A	64PKA129A	64PKA130A
Model	QMH-14"A	QMH-24"A	QMH-14"B	QMH-24"B
Range	0 - 14"/0-350mm	0 - 24"/0-600mm	0 - 14"/0-350mm	0 - 24"/0-600mm
Resolution	0.001 / 0.005mm / .00005" / .0001"			
Accuracy	$\pm(2.4+2.1L/600)\mu\text{m}$ L = Measuring length (mm)			
at 20°C	Repeatability*1 $2\sigma \leq 1.8\mu\text{m}$			
Perpendicularity	7 μm	12 μm	7 μm	12 μm
Guiding method	Roller bearing			
Drive method	Manual operation			
Scale type	Electromagnetic induction type ABSOLUTE linear encoder			
Measuring force	1.5 \pm 0.5(N)			
Data output	Digimatic output/USB			
Pneumatic floating system	NA			
Power supply	AC adapter battery / (LR6 x 4) Standard accessory / Nickel metal hydride battery (x4)			
Battery operation time	Approx. 300 hours (Not using pneumatic floating system)			
	Approx. 80 hours (Using pneumatic floating system regularly)			
Standard accessories	Stepped probe (05H2A148) Probe diameter calibration block (12AAA715) LR6 Battery / AC Adapter (06AEG180JA) 120V			
Mass	55.16 lbs (25kg)	63.93 lbs (29kg)	57.32 lbs (26kg)	66.14 lbs (30kg)
Dimensions	41.85"x21.85x18.94" 1063(W)x555(D)x481(H)	51.02"x21.85x18.94" 1296(W)x555(D)x481(H)	41.85"x21.85x18.94" 1063(W)x555(D)x481(H)	51.02"x21.85x18.94" 1296(W)x555(D)x481(H)
Main Unit	518-231	518-233	518-235	518-237

*1 Guaranteed when using the standard eccentric $\phi 5$ probe.

DIMENSIONS

Unit: mm



Standard accessories

- Probe diameter calibration block
- $\phi 5$ stepped probe
- 4 alkaline batteries (LR6)
- AC adapter

(): Range 0-600mm/0-24"

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Whatever your challenges are, Mitutoyo supports you from start to finish.

Mitutoyo is not only a manufacturer of top-quality measuring products but one that also offers qualified support for the lifetime of the equipment, backed by comprehensive services that ensure your staff can make the very best use of the investment.

Apart from the basics of calibration and repair, Mitutoyo offers product and metrology training, as well as IT support for the sophisticated software used in modern measuring technology. We can also design, build, test and deliver measuring solutions and even, if deemed cost-effective, take your critical measurement challenges in-house on a sub-contract basis.



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