Height Gauges

SERIES 518 – QM-Height ABSOLUTE Digimatic High Precision Height Gauge

- High-performance height gauge with best-in-class accuracy and perpendicularity plus GO/±NG judgement functionality.
- Redesigned control panel features a dual-numeric display that shows the difference between the previous measurement value and the current value as well as the current value.
- Newly developed high accuracy and high resolution ABSOLUTE linear encoder for position detection. Once origin is set, origin setting is not required each time you turn the power ON (except in the case of a large environmental temperature change).
- GO/NO-GO judgement is performed by setting upper and lower tolerances. If a judgement result is out of tolerance the 3-colour LED above the display changes from green to red or orange, so tolerance judgement can be made at a glance.
- Frequent-use measurement such as inside/outside diameter and pitch calculation can be implemented by icon-based commands that also support easy one-key operation.
- Inside/outside diameters can be measured via a unique method (detect circle apex by tracing measurement*[1]).
- Slider elevation knob (for travel) and wheel (for measurement) enable coarse and fine height adjustment.
- An angled grip is conveniently placed for moving the QM-Height on the surface plate and the pneumatic suspension system enables easy, friction-free positioning.
- SPC (Digimatic) and RS-232C data output enables incorporation into statistical process control and measurement systems.

*[1] Tracing measurement stroke is approx. 1 mm upwards and downwards from the measurement start point.

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Data Management Software by Mitutoyo

ABSOLUTE

PROPRIETARY INSPECTION CERTIFICATE

518-247

Specifications

Inch/Metric

Code No.	518-245	518-247
Range	0-350 mm (0-14")	0-600 mm (0-24")
Perpendicularity	7 µm	12 µm
Mass	26 kg	30 kg

Technical Data

Resolution:	0.001/0.0005 mm (.00005"/.00001")
Accuracy at 20°C*[2]:	±(2.4+2.1L/600) µm, L = measuring length in mm
Repeatability (2σ)*[2]	≦1.8 µm
Guiding method:	Roller bearing
Drive method:	Manual
Scale type:	ABSOLUTE electromagnetic linear encoder
Measuring force:	1.5 ± 0.5 N
Display:	LCD
Power supply:	AC adapter (optional)/battery (LR6 x 4)
Battery operation time:	Approx. 1200 hours not using pneumatic suspension system, (approx. 90 hours using pneumatic suspension system regularly)

*[2] Guaranteed when using the standard ø5 mm offset probe.

Standard Accessories

05HZA148: ø5 mm offset probe
12AAA715: Ball-diameter correction block

The power grip provides easy handling.

GO shown on the display and the panel LED showing GREEN means the measurement is within the tolerance limits.

±NG shown on the display and the panel LED showing ORANGE (-NG) or RED (+NG) means the measurement is outside the tolerance limits.

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