Mitutoyo operates a policy of continuous improvement that aims to provide the customer with the benefit of the latest technological advances. Therefore the company reserves the right to change any or all aspects of any product specification without notice.

• Double-column structure ensures high measuring accuracy.
• Ergonomic base fits comfortably in the hand.
• Bidirectional touch-trigger probe is available as an optional accessory.
• Character height of the LCD display has been increased (10mm to 11mm) and a high-contrast LCD display unit adopted, so that the readability is improved.
• Inclined handle improves slider ergonomics.

• Allows integration into statistical process control and measurement systems. Refer to page A-3.
• Battery: SR44 (1 pc), 938882. For initial operational checks (standard accessory)
• Battery life is 3,500 hours in continuous use.
• Carbide-tipped long scriber (No. 905200 with overall length of 150mm) is provided as a standard accessory. (Standard accessory: scriber cramp No. 05GZA033)
• For precision Black Granite Surface Plates, refer to page E-51.

Digimatic Height Gage
SERIES 192 — Multi-function Type with SPC Data Output

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Metric</th>
<th>Range</th>
<th>Resolution</th>
<th>Accuracy*</th>
<th>Repeatability</th>
<th>Max. response speed</th>
<th>Height</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>192-663-10</td>
<td>0 - 300mm</td>
<td>0.01mm</td>
<td>±0.02mm</td>
<td>0.01mm</td>
<td>510mm</td>
<td>5.7kg</td>
<td></td>
</tr>
<tr>
<td>192-664-10</td>
<td>0 - 600mm</td>
<td>0.01mm</td>
<td>±0.04mm</td>
<td>0.01mm</td>
<td>802mm</td>
<td>8.3kg</td>
<td></td>
</tr>
<tr>
<td>192-665-10</td>
<td>0 - 1000mm</td>
<td>0.01mm</td>
<td>±0.06mm</td>
<td>0.01mm</td>
<td>1228mm</td>
<td>15.7kg</td>
<td></td>
</tr>
</tbody>
</table>

* Excluding quantizing error

Inch/Metric

<table>
<thead>
<tr>
<th>Metric</th>
<th>Range</th>
<th>Resolution</th>
<th>Accuracy*</th>
<th>Repeatability</th>
<th>Max. response speed</th>
<th>Height</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>192-670-10</td>
<td>0 - 12&quot;</td>
<td>.0005&quot;/.01mm</td>
<td>±0.002&quot;</td>
<td>0.01&quot;</td>
<td>510mm</td>
<td>5.7kg</td>
<td></td>
</tr>
<tr>
<td>192-671-10</td>
<td>0 - 18&quot;</td>
<td>.0005&quot;/.01mm</td>
<td>±0.0025&quot;</td>
<td>0.01mm</td>
<td>649mm</td>
<td>7.5kg</td>
<td></td>
</tr>
<tr>
<td>192-672-10</td>
<td>0 - 24&quot;</td>
<td>.0005&quot;/.01mm</td>
<td>±0.0025&quot;</td>
<td>0.01mm</td>
<td>802mm</td>
<td>8.3kg</td>
<td></td>
</tr>
<tr>
<td>192-673-10</td>
<td>0 - 40&quot;</td>
<td>.0005&quot;/.01mm</td>
<td>±0.0025&quot;</td>
<td>0.01mm</td>
<td>1228mm</td>
<td>15.7kg</td>
<td></td>
</tr>
</tbody>
</table>

* Excluding quantizing error

Low-voltage alert:
When battery voltage becomes low, a warning appears in the display.

Probe-tip diameter compensation:
An adjustment is applied to the raw measurement data to compensate for the effect of the size of the spherical contact point used by the bidirectional touch-trigger probe.

Presetting (2 positions)
With two preset functions, two reference heights can be used relative to a surface plate.
• Example of preset 1
To measure a height of 70mm, with a reference plane height of 50mm
• Example of preset 2
To measure a height of 130mm, with a reference plane height of 150mm

Functions
Origin-setting (ABS measurement mode):
Any arbitrary value can be stored as the origin point.

Zero-setting (INC measurement mode):
Displayed value can be set to zero at any arbitrary position of the slider.

Origin restoration:
Previously set origin is restored when switching back to ABS mode.

Presetting (ABS INC measurement mode):
Displayed value can be set to any arbitrary value, including negative values.

Measuring direction
Measuring direction can be switched at the press of a button.

Data hold:
Display value can be held. Reverts to ABS or INC mode when cancelled.

Alarm: Error message is displayed when overflow or overspeed of displayed value arises and measurement is stopped.

Data output:
Allows integration into statistical process control and measurement systems. (Refer to page A-3.)
Fine and coarse height adjustment through knob and wheel combination.
Slider height adjustment wheel allows fine and coarse height adjustment.

Coarse adjustment:
Push the small fine-adjustment knob in to disengage gearing and then turn the large wheel.

Fine adjustment:
Pull the fine-adjustment knob out to engage gearing and then turn this knob, which then slowly turns the wheel.

Functions
Origin-setting (ABS measurement mode):
Any arbitrary value can be stored as the origin point.

Zero-setting (INC measurement mode):
Displayed value can be set to zero at any arbitrary position of the slider.

Origin restoration:
Previously set origin is restored when switching back to ABS mode.

Presetting (ABS INC measurement mode):
Displayed value can be set to any arbitrary value, including negative values.

Measuring direction
Measuring direction can be switched at the press of a button.

Data hold:
Display value can be held. Reverts to ABS or INC mode when cancelled.

Alarm: Error message is displayed when overflow or overspeed of displayed value arises and measurement is stopped.

Data output:
Allows integration into statistical process control and measurement systems. (Refer to page A-3.)
Fine and coarse height adjustment through knob and wheel combination.
Slider height adjustment wheel allows fine and coarse height adjustment.

Low-voltage alert:
When battery voltage becomes low, a warning appears in the display.

Probe-tip diameter compensation:
An adjustment is applied to the raw measurement data to compensate for the effect of the size of the spherical contact point used by the bidirectional touch-trigger probe.

Presetting (2 positions)
With two preset functions, two reference heights can be used relative to a surface plate.
• Example of preset 1
To measure a height of 70mm, with a reference plane height of 50mm
• Example of preset 2
To measure a height of 130mm, with a reference plane height of 150mm

Functions
Origin-setting (ABS measurement mode):
Any arbitrary value can be stored as the origin point.

Zero-setting (INC measurement mode):
Displayed value can be set to zero at any arbitrary position of the slider.

Origin restoration:
Previously set origin is restored when switching back to ABS mode.

Presetting (ABS INC measurement mode):
Displayed value can be set to any arbitrary value, including negative values.

Measuring direction
Measuring direction can be switched at the press of a button.

Data hold:
Display value can be held. Reverts to ABS or INC mode when cancelled.

Alarm: Error message is displayed when overflow or overspeed of displayed value arises and measurement is stopped.

Data output:
 Allows integration into statistical process control and measurement systems. (Refer to page A-3.)
 Fine and coarse height adjustment through knob and wheel combination.
 Slider height adjustment wheel allows fine and coarse height adjustment.

Coarse adjustment:
Push the small fine-adjustment knob in to disengage gearing and then turn the large wheel.

Fine adjustment:
Pull the fine-adjustment knob out to engage gearing and then turn this knob, which then slowly turns the wheel.

Specs
Mitutoyo operates a policy of continuous improvement that aims to provide the customer with the benefit of the latest technological advances. Therefore the company reserves the right to change any or all aspects of any product specification without notice.

**Optional Accessory**

Bidirectional touch-trigger probe

Improves accuracy in step, internal thickness, and outside width measurement by minimizing reproducibility error.

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Order No.</th>
<th>Measuring direction</th>
<th>Relay contact type</th>
<th>Probe overtravel</th>
<th>Probe size</th>
<th>Repeatability</th>
<th>Measuring force</th>
<th>Standard accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>192-007</td>
<td>Bidirectional</td>
<td>Normally Open</td>
<td>1.5mm</td>
<td>ø3mm</td>
<td>σ: 2μm</td>
<td>0.4N</td>
<td>Holder arm, Clamp</td>
</tr>
<tr>
<td>Inch</td>
<td>192-008</td>
<td>Bidirectional</td>
<td>Normally Open</td>
<td>1.5mm</td>
<td>ø3mm</td>
<td>σ: 2μm</td>
<td>0.4N</td>
<td>Holder arm, Clamp</td>
</tr>
</tbody>
</table>

For details of the connecting cable, refer to page A-21.

**Connecting cables for IT/DP/MUX**

- 905338: SPC cable (1m)
- 905409: SPC cable (2m)

**USB Input Tool Direct**

- 06ADV380F: SPC cable for USB-ITN-F (2m)

**Connecting cables for U-WAVE-T**

- 02AZD790F: SPC cable for U-WAVE (160mm)
- 02AZE140F: SPC cable for footswitch
Height Gage
A standard measuring tool of industry

Digimatic Height Gage
SERIES 192 — Standard Type with SPC Data Output

• Easy-to-use standard type.
• Double-column structure ensures high measuring accuracy.
• Ergonomic base fits comfortably in the hand.
• Character height of the LCD display has been increased (10mm to 11mm) and a high-contrast LCD display unit adopted, so that readability is improved.
• Allowing integration into statistical process control and measurement systems. Refer to page A-3.

SPECIFICATIONS

### Metric

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Range</th>
<th>Resolution</th>
<th>Accuracy*</th>
<th>Repeatability</th>
<th>Max. response speed</th>
<th>Height</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>192-613-10</td>
<td>0 - 300mm</td>
<td>0.01mm</td>
<td>±0.00mm</td>
<td>±0.01mm</td>
<td>500mm/s</td>
<td>475mm</td>
<td>4.7kg</td>
</tr>
<tr>
<td>192-614-10</td>
<td>0 - 500mm</td>
<td>0.01mm</td>
<td>±0.04mm</td>
<td>±0.01mm</td>
<td>802mm</td>
<td>8.3kg</td>
<td></td>
</tr>
<tr>
<td>192-615-10</td>
<td>0 - 1000mm</td>
<td>0.01mm</td>
<td>±0.07mm</td>
<td>±0.01mm</td>
<td>1228mm</td>
<td>15.7kg</td>
<td></td>
</tr>
</tbody>
</table>

* Excluding the quantizing error of ±1 count.

### Inch/Metric

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Range</th>
<th>Resolution</th>
<th>Accuracy*</th>
<th>Repeatability</th>
<th>Max. response speed</th>
<th>Height</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>192-630-10</td>
<td>0 - 12&quot;</td>
<td>0.0005&quot;/0.001mm</td>
<td>±.001&quot;</td>
<td>±.0005&quot;</td>
<td>500mm/s</td>
<td>475mm</td>
<td>4.7kg</td>
</tr>
<tr>
<td>192-631-10</td>
<td>0 - 18&quot;</td>
<td>0.0005&quot;/0.002&quot;</td>
<td>±.002&quot;</td>
<td>±.0005&quot;</td>
<td>649mm</td>
<td>7.5kg</td>
<td></td>
</tr>
<tr>
<td>192-632-10</td>
<td>0 - 24&quot;</td>
<td>0.0005&quot;/0.0025&quot;</td>
<td>±.003&quot;</td>
<td>±.0005&quot;</td>
<td>802mm</td>
<td>8.3kg</td>
<td></td>
</tr>
<tr>
<td>192-633-10</td>
<td>0 - 40&quot;</td>
<td>0.0005&quot;/0.0025&quot;</td>
<td>±.003&quot;</td>
<td>±.0005&quot;</td>
<td>1228mm</td>
<td>15.7kg</td>
<td></td>
</tr>
</tbody>
</table>

* Excluding the quantizing error of ±1 count.

• Battery: SR44 (1 pc), 938882. For initial operational checks (standard accessory)
• Carbide-tipped long scriber No. 07GZA000 is provided as a standard accessory. (Standard accessory: scriber cramp No. 05GZA033)
• For precision Black Granite Surface Plates, refer to page E-51.

Mitutoyo operates a policy of continuous improvement that aims to provide the customer with the benefit of the latest technological advances. Therefore, the company reserves the right to change any or all aspects of any product specification without notice.
Mitutoyo operates a policy of continuous improvement that aims to provide the customer with the benefit of the latest technological advances. Therefore the company reserves the right to change any or all aspects of any product specification without notice.

**DIMENSIONS**

Order No. 192-613-10, 192-614-10

( ): No. 192-614-10

Unit: mm

**Order No. 192-615-10**
ABSOLUTE Digimatic Height Gage
SERIES 570 — with ABSOLUTE Linear Encoder

- Allows smooth elevation by the slider adjustment wheel, which is the same as the well-established double-column structure height gage.
- Large slider-clamp lever ensures positive and accurate clamping action.
- High durability and high accuracy are ensured by an improved column design (35x15mm).

- Character height of the LCD display is 10mm.
- Ergonomic and stylish base fits comfortably in the hand.

- Due to the built-in ABSOLUTE scale function, origin setting is not required each time power is turned ON.
- Allows integration into statistical process control and measurement systems. Refer to page A-3.
- Battery: SR44 (1 pc), 938882. For initial operational checks (standard accessory)
- Battery life is 20,000 hours under normal use.
- For precision Black Granite Surface Plates, refer to page E-51.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Metric</th>
<th>Order No.</th>
<th>Range</th>
<th>Resolution</th>
<th>Accuracy*</th>
<th>Repeatability</th>
<th>Max. response speed</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metric</td>
<td>570-302</td>
<td>0 - 300mm</td>
<td>0.01mm</td>
<td>±0.02mm</td>
<td>±0.05mm</td>
<td>Unlimited</td>
<td>4.6kg</td>
</tr>
<tr>
<td>Metric</td>
<td>570-304</td>
<td>0 - 600mm</td>
<td>±0.05mm</td>
<td>0.01mm</td>
<td>Unlimited</td>
<td>6.4kg</td>
<td></td>
</tr>
</tbody>
</table>

* Excluding quantizing error

<table>
<thead>
<tr>
<th>Inch/Metric</th>
<th>Order No.</th>
<th>Range</th>
<th>Resolution</th>
<th>Accuracy*</th>
<th>Repeatability</th>
<th>Max. response speed</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inch/Metric</td>
<td>570-312</td>
<td>0 - 12&quot;</td>
<td>0.0005&quot;/0.01mm</td>
<td>±0.0015&quot;</td>
<td>±0.002&quot;</td>
<td>Unlimited</td>
<td>4.6kg</td>
</tr>
<tr>
<td>Inch/Metric</td>
<td>570-313</td>
<td>0 - 18&quot;</td>
<td>±0.002&quot;</td>
<td>0.01mm</td>
<td>Unlimited</td>
<td>5.9kg</td>
<td></td>
</tr>
<tr>
<td>Inch/Metric</td>
<td>570-314</td>
<td>0 - 24&quot;</td>
<td>±0.002&quot;</td>
<td>0.01mm</td>
<td>Unlimited</td>
<td>6.4kg</td>
<td></td>
</tr>
</tbody>
</table>

* Excluding quantizing error
Mitutoyo operates a policy of continuous improvement that aims to provide the customer with the benefit of the latest technological advances. Therefore the company reserves the right to change any or all aspects of any product specification without notice.

**DIMENSIONS**

\[ \text{No. 570-304} \]

Unit: mm
ABSOLUTE Digimatic Height Gage
SERIES 570 — with ABSOLUTE Linear Encoder

- ABS and INC measurement modes allow efficient operation.
- Rigid structure makes instrument suitable for use in severe work environments.
- The +/- measurement function widens the application range.
- Allows integration into statistical process control and measurement systems.

Refer to page A-3.

- Battery: SR44 (1 pc), 938882. For initial operational checks (standard accessory)
- Battery life is 5,000 hours under normal use.
- Carbide-tipped scriber (No. 900173 for Nos. 570-227 and 244, and No. 905200 for Nos. 570-230 and 248) is provided as a standard accessory. (Standard accessory: scriber cramp No. 901338 for Nos. 570-227 and 244, and No. 05GZA033 for Nos. 570-230 and 248)

- When a dial indicator or test indicator is used with 570-227, the dedicated holding bar (953639, overall length 50mm) is recommended for use. However, instrumental error may be larger because the measurement point is further from the beam.

- For precision Black Granite Surface Plates, refer to page E-51.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Metric</th>
<th>Order No.</th>
<th>Range</th>
<th>Resolution</th>
<th>Fine feed</th>
<th>Accuracy*</th>
<th>Repeatability</th>
<th>Height</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>570-227</td>
<td>0 - 200mm</td>
<td>0.01mm</td>
<td>4mm</td>
<td>±0.03mm</td>
<td>0.01mm</td>
<td>355</td>
<td>1.4kg</td>
<td></td>
</tr>
<tr>
<td>570-230</td>
<td>0 - 1000mm</td>
<td>6mm</td>
<td>±0.07mm</td>
<td>1260</td>
<td>16.8kg</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Excluding quantizing error

<table>
<thead>
<tr>
<th>Inch/Metric</th>
<th>Order No.</th>
<th>Range</th>
<th>Resolution</th>
<th>Fine feed</th>
<th>Accuracy*</th>
<th>Repeatability</th>
<th>Height</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>570-244</td>
<td>0 - 12&quot;</td>
<td>.005&quot;</td>
<td>16&quot;</td>
<td>±.002&quot;</td>
<td>0.01mm</td>
<td>355</td>
<td>1.4kg</td>
<td></td>
</tr>
<tr>
<td>570-248</td>
<td>0 - 40&quot;</td>
<td>.010&quot;</td>
<td>24&quot;</td>
<td>±.003&quot;</td>
<td>1260</td>
<td>16.8kg</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Excluding quantizing error

**Functions**
- Zero-setting
- +/- directional measurement
- Data hold
- Data output
- Presetting
- inch/mm reading (inch/mm models)
- Preset value memory
- Origin restoration
- Low battery voltage alert
- Counting value composition error alert

**Optional accessories**
For details, refer to page A-21.
Connecting cables for IT/D/PMUX
905398: SPC cable with data button (1m)
905409: SPC cable with data button (2m)
USB Input Tool Direct
06ADV380F: SPC cable for USB-ITN-F (2m)
Connecting cables for U-WAVE-T
02AZD790F: SPC cable for U-WAVE with data button (160mm)
02AZE140F: SPC cable for footswitch

Mitutoyo operates a policy of continuous improvement that aims to provide the customer with the benefit of the latest technological advances. Therefore the company reserves the right to change any or all aspects of any product specification without notice.
Mitutoyo operates a policy of continuous improvement that aims to provide the customer with the benefit of the latest technological advances. Therefore the company reserves the right to change any or all aspects of any product specification without notice.
Height Gage
A standard measuring tool of industry

Vernier Height Gage
SERIES 514, 506 — Standard Height Gage with Adjustable Main Scale

- Fits comfortably in the hand and moves easily on the surface plate.
- The main scale slides and clamps within the column for quick and convenient zero-setting.
- Large locking knobs are used both for the slider and fine adjustment clamps to make clamping easy and secure.
- Operability of slider has been improved.
- Large main-scale engraving for fatigue-free working.
- Carbide-tipped scriber (No. 07GZA000 for Nos. 514-102/104/106/103/105/107, No. 905200 for Nos. 514-108 and 109, and No. 900390 for No. 514-170) is provided as a standard accessory. (Scriber cramp No. 05GZA033 for Code No. 514-102/104/106/103/105/107/109, and No. 905008 for No. 514-170)
- For precision Black Granite Surface Plates, refer to page E-51.

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>Metric</th>
<th>Order No.</th>
<th>Range</th>
<th>Graduation</th>
<th>Accuracy</th>
<th>Scale adjustment</th>
<th>Fine feed</th>
<th>Height</th>
<th>Mass</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>506-207</td>
<td>0 - 200mm</td>
<td>0.02mm</td>
<td>±0.03mm</td>
<td>—</td>
<td>4mm</td>
<td>341mm</td>
<td>1.4kg</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>514-102</td>
<td>0 - 300mm</td>
<td>0.04mm</td>
<td>±0.04mm</td>
<td>15mm</td>
<td>5mm</td>
<td>525mm</td>
<td>3.1kg</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>514-104</td>
<td>0 - 450mm</td>
<td>0.05mm</td>
<td>±0.05mm</td>
<td>8mm</td>
<td>675mm</td>
<td>3.4kg</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td></td>
<td>514-106</td>
<td>0 - 600mm</td>
<td>0.07mm</td>
<td>±0.07mm</td>
<td>15mm</td>
<td>7mm</td>
<td>765mm</td>
<td>7.4kg</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>514-108</td>
<td>0 - 1000mm</td>
<td>0.18mm</td>
<td>±0.18mm</td>
<td>15mm</td>
<td>20mm</td>
<td>1760mm</td>
<td>26kg</td>
<td>with magnifier</td>
</tr>
<tr>
<td></td>
<td>514-170</td>
<td>0 - 1500mm</td>
<td>0.05mm</td>
<td>±0.05mm</td>
<td>20mm</td>
<td>1760mm</td>
<td>26kg</td>
<td>—</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inch/Metric</th>
<th>Order No.</th>
<th>Range</th>
<th>Graduation</th>
<th>Accuracy</th>
<th>Scale adjustment</th>
<th>Fine feed</th>
<th>Height</th>
<th>Mass</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>506-208</td>
<td>0 - 8&quot;</td>
<td>.001&quot;/.02mm</td>
<td>±.001&quot;</td>
<td>—</td>
<td>16&quot;</td>
<td>341mm</td>
<td>1.4kg</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>514-103</td>
<td>0 - 12&quot;</td>
<td>.001&quot;/.02mm</td>
<td>±.001&quot;</td>
<td>.6&quot;</td>
<td>5mm</td>
<td>525mm</td>
<td>3.1kg</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>514-105</td>
<td>0 - 18&quot;</td>
<td>.001&quot;/.02mm</td>
<td>±.001&quot;</td>
<td>.6&quot;</td>
<td>7mm</td>
<td>675mm</td>
<td>3.4kg</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>514-107</td>
<td>0 - 24&quot;</td>
<td>.001&quot;/.02mm</td>
<td>±.001&quot;</td>
<td>.6&quot;</td>
<td>8mm</td>
<td>870mm</td>
<td>7.4kg</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>514-109</td>
<td>0 - 40&quot;</td>
<td>.001&quot;/.02mm</td>
<td>±.001&quot;</td>
<td>.6&quot;</td>
<td>10mm</td>
<td>1340mm</td>
<td>20kg</td>
<td>—</td>
</tr>
</tbody>
</table>

### DIMENSIONS

<table>
<thead>
<tr>
<th>Range</th>
<th>L</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
<th>e</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 300mm</td>
<td>525</td>
<td>32</td>
<td>20</td>
<td>70</td>
<td>28</td>
<td>45</td>
</tr>
<tr>
<td>0 - 450mm</td>
<td>675</td>
<td>32</td>
<td>24</td>
<td>85</td>
<td>35</td>
<td>54</td>
</tr>
<tr>
<td>0 - 600mm</td>
<td>870</td>
<td>32</td>
<td>42</td>
<td>110</td>
<td>45</td>
<td>65</td>
</tr>
<tr>
<td>0 - 1000mm</td>
<td>1340</td>
<td>32</td>
<td>42</td>
<td>110</td>
<td>45</td>
<td>65</td>
</tr>
</tbody>
</table>
Dial Height Gage
SERIES 192 — With digital counter

- Easy and error-free reading with both up and down digital counters as well as a dial.
- Fits comfortably in the hand and moves easily on the surface plate.
- Can be zero-set at any arbitrary position.
- Provided with a large adjustment wheel for easy height adjustment.
- Clamp can be operated easily and securely.
- Carbide tipped scriber (No. 07GZA000) is attached as standard. (Standard accessory: Scribe clamp No. 05GZA033)
- For precision Black Granite Surface Plates, refer to page E-51.

Optional accessories
- 07GZA700: Scribe
- 953638: Holding bar for test indicator (length: 50mm)
- 900209: Holding bar for test indicator (length: 100mm)
- 953639: Holding bar for test indicator (length: 2")
- 900306: Holding bar for test indicator (length: 4")
- 900321: Swivel clamp used with holding bar (metric)
- 900322: Swivel clamp used with holding bar (inch)
- 92053: Clamp (with dovetail groove, ø6 and ø8 holes)

Note: A test indicator can be mounted on a height gage using a holding bar and clamp.

---

**SPECIFICATIONS**

**Metric**

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Range</th>
<th>Accuracy Graduation</th>
<th>Graduation</th>
<th>Height</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>192-130</td>
<td>0 - 300mm</td>
<td>±0.03mm</td>
<td>0.01mm</td>
<td>470mm</td>
<td>4.2kg</td>
</tr>
<tr>
<td>192-131</td>
<td>0 - 450mm</td>
<td>±0.05mm</td>
<td>0.01mm</td>
<td>648mm</td>
<td>9.2kg</td>
</tr>
<tr>
<td>192-132</td>
<td>0 - 600mm</td>
<td>±0.05mm</td>
<td>0.01mm</td>
<td>798mm</td>
<td>9.8kg</td>
</tr>
<tr>
<td>192-133</td>
<td>0 - 1000mm</td>
<td>±0.07mm</td>
<td>0.01mm</td>
<td>1220mm</td>
<td>17.0kg</td>
</tr>
</tbody>
</table>

**Inch**

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Range</th>
<th>Accuracy Graduation</th>
<th>Graduation</th>
<th>Height</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>192-150</td>
<td>0 - 12&quot;</td>
<td>±.0015&quot;</td>
<td>.001&quot;</td>
<td>470mm</td>
<td>4.2kg</td>
</tr>
<tr>
<td>192-151</td>
<td>0 - 18&quot;</td>
<td>±.002&quot;</td>
<td>.001&quot;</td>
<td>648mm</td>
<td>9.2kg</td>
</tr>
<tr>
<td>192-152</td>
<td>0 - 24&quot;</td>
<td>±.002&quot;</td>
<td>.001&quot;</td>
<td>798mm</td>
<td>9.8kg</td>
</tr>
<tr>
<td>192-153</td>
<td>0 - 40&quot;</td>
<td>±.003&quot;</td>
<td>.001&quot;</td>
<td>1220mm</td>
<td>17.0kg</td>
</tr>
</tbody>
</table>

**DIMENSIONS**

<table>
<thead>
<tr>
<th>0 - 300mm (0 - 450mm, 0 - 600mm)</th>
<th>0 - 1000mm</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Dimensions diagram" /></td>
<td><img src="image2.png" alt="Dimensions diagram" /></td>
</tr>
</tbody>
</table>
Height Gage
A standard measuring tool of industry

CERA Caliper Checker
SERIES 515

- Enables efficient setting and inspection of calipers and height gages.

SPECIFICATIONS

Metric

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Range</th>
<th>Block pitch accuracy*</th>
<th>Parallelism of blocks*</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>515-555</td>
<td>0 - 300mm</td>
<td>±5.0μm</td>
<td>±2.0μm</td>
<td>4kg</td>
</tr>
<tr>
<td>515-556-2</td>
<td>0 - 600mm</td>
<td>±7.0μm</td>
<td>±4.0μm</td>
<td>8.5kg</td>
</tr>
</tbody>
</table>

Inch

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Range</th>
<th>Block pitch accuracy*</th>
<th>Parallelism of blocks*</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>515-565</td>
<td>0 - 12&quot;</td>
<td>±0.002&quot;</td>
<td>±0.0008&quot;</td>
<td>4kg</td>
</tr>
</tbody>
</table>

* The block accuracy and the parallelism of blocks are based on the followings:
  Outside caliper and height gage: lower end reference plane
  Inside caliper: inside reference plane

DIMENSIONS

Optional accessories
602162: Wooden case for 300mm, 12inch model
602164: Wooden case for 600mm model
Mitutoyo operates a policy of continuous improvement that aims to provide the customer with the benefit of the latest technological advances. Therefore the company reserves the right to change any or all aspects of any product specification without notice.

**高度计**
**可选附件**

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>Metric</th>
<th>Order No.</th>
<th>Applicable Height Gages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Metric</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>07GZA000</td>
<td>192 Series Digimatic Height Gages (192-613-10, 192-614-10, 192-615-10)</td>
<td></td>
</tr>
<tr>
<td>570 Series Digimatic Height Gages (570-302, 570-304)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>192 Series Dial Height Gages (192-130, 192-131, 192-132, 192-133)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>514 Series Vernier Height Gages (514-102, 514-104, 514-106, 514-103, 514-105, 514-107)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>574 Series Heightmatic (574-112-1, 574-111-1, 574-110-1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>905200</td>
<td>192 Series Digimatic Height Gages (192-663-10, 192-664-10, 192-665-10)</td>
<td></td>
</tr>
<tr>
<td>570 Series Dial Height Gages (570-230)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>514 Series Vernier Height Gages (514-108, 514-109)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>900390</td>
<td>514 Series Vernier Height Gage (514-170)</td>
<td></td>
</tr>
<tr>
<td><strong>Inch</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>900173</td>
<td>570 Series Digimatic Height Gages (570-227, 570-244)</td>
<td></td>
</tr>
<tr>
<td>506 Series Vernier Height Gages (506-207, 506-208)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>900258</td>
<td>192 Series Digimatic Height Gages (192-630-10, 192-631-10, 192-632-10, 192-633-10)</td>
<td></td>
</tr>
<tr>
<td>570 Series Digimatic Height Gages (570-312, 570-313, 570-314)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>574 Series Heightmatic (574-212-1, 574-211-1, 574-210-1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>905201</td>
<td>192 Series Digimatic Height Gages (192-670-10, 192-671-10, 192-672-10, 192-673-10)</td>
<td></td>
</tr>
<tr>
<td>570 Series Digimatic Height Gages (570-248)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Contact Sensor

- **No. 900872**
  - The contact sensor eliminates errors caused by non-contact of the slider with a workpiece while making measurements. When the scriber of a height gage touches a conductive workpiece, an indicator lights up to indicate that a measurement can be taken, which results in consistent results.
  - Magnet is incorporated.
  - Battery (PR44, 2 pcs required) is not included.
  - For precision Black Granite Surface Plates, refer to page E-51.

### Center Probe

- **No. 951144**
  - Allows quick measurement of center-to-center distance between holes.
  - Measurable hole diameters: 1 - 38mm
  - Mounting position dimension: 99 mm

### Depth Gage Attachment

- **No. 900764**
  - Attaches to a height gage for measuring groove and hole depth.
  - Minimum hole diameter: 5.5mm
  - Maximum distance from the bottom of the holding bar to the contact point: 80mm (metric type), 2.95” (inch type)
  - Dial indicator contact points are usable. (Refer to pages F-51.)
  - Mounting position dimension: 99 mm
  - Holding bar length: 100mm