

Mitutoyo

Catalog No. US-1002



Measuring Instruments Catalog

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02-214-0101

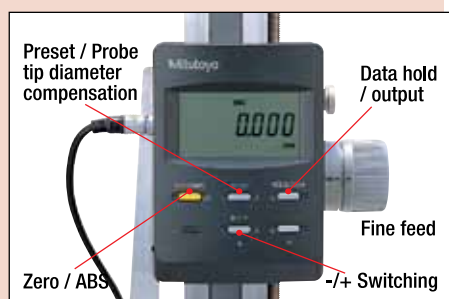


Technical Data

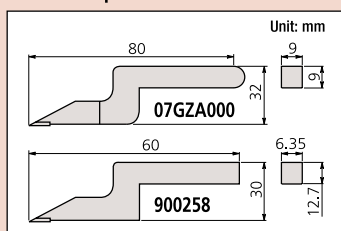
Accuracy: Refer to the list of specifications.
(excluding quantizing error for digital models)
Repeatability: 0.001mm
Resolution: 0.001mm
Display: LCD, 6-digit
Power supply: Via AC adapter

Function

Zero-setting, Presetting, Probe tip diameter compensation, +/- switching, Data hold, Data output, inch/mm conversion (inch/mm models)
Alarm: Counting value composition error



Dimensions of Optional Scribers



Optional Accessory

936937: SPC cable (1m)
965014: SPC cable (2m)
900321: Swivel clamp for dial test indicator (metric)
900322: Swivel clamp for dial test indicator (inch)
953638: Holding bar for swivel clamp (metric)
953639: Holding bar for swivel clamp (inch)
07GZA000: Carbide-tipped scriber (metric)
900258: Carbide-tipped scriber (inch)
145250: ø1mm contact point for touch-signal probe
145251: ø2mm contact point for touch-signal probe

Touch-Signal Probe (Standard accessory)



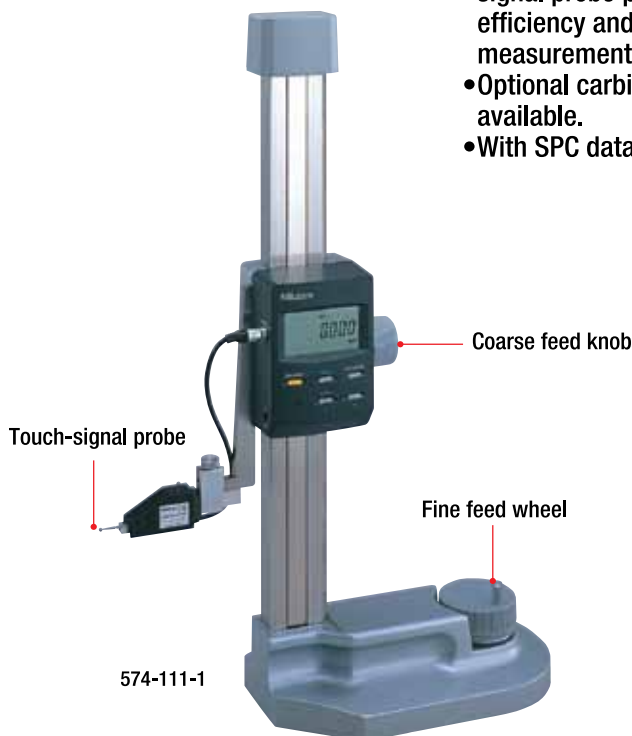
Order No.: 574-006
• Two-directional type
• Over travel: Less than 3mm
• Contact point: ø3mm ball
• Repeatability: 0.0015mm
• Measuring force: 0.4N

Heightmatic

SERIES 574 — High Precision Height Gage

FEATURES

- Provides resolution of 0.001mm on the large LCD readout for accurate measurements.
- Excellent functionality and easy operation.
- The standard two-directional touch-signal probe provides improved efficiency and reliability of measurement for the Heightmatic.
- Optional carbide-tipped scribers are available.
- With SPC data output.



574-111-1

SPECIFICATIONS

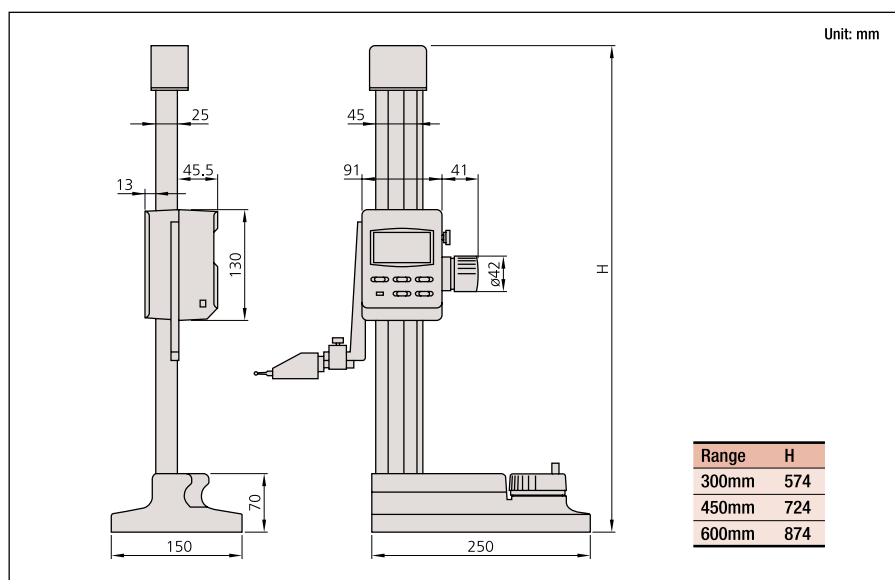
Metric		
Range	Order No.*	Accuracy
0 - 300mm	574-112-1E	±0.004mm
0 - 450mm	574-111-1E	±0.004mm
0 - 600mm	574-110-1E	±0.005mm

* To denote your AC line voltage add the following suffixes to the order No. A for 120V D for 220V E for 240/220V K for Korea DC for China
No suffix is required for 100V

Inch/Metric		
Range	Order No.*	Accuracy
0 - 12"	574-212-1E	±.0002"
0 - 18"	574-211-1E	±.0002"
0 - 24"	574-210-1E	±.0002"

* To denote your AC line voltage add the following suffixes to the order No. A for 120V D for 220V E for 240/220V K for Korea DC for China
No suffix is required for 100V

DIMENSION



Range	H
300mm	574
450mm	724
600mm	874

Digimatic Height Gage

SERIES 192 — Multi-function Type with SPC Data Output

FEATURES

- Highly versatile multi-function type.
- Carbide-tipped long scriber is provided.
- Rigid construction ensures repeatable measurement.
- Coarse/fine feed switching.
- Two-directional touch-signal probe is an optional accessory. It can quickly and accurately measure steps, inside width, and outside width.
- With SPC data output.



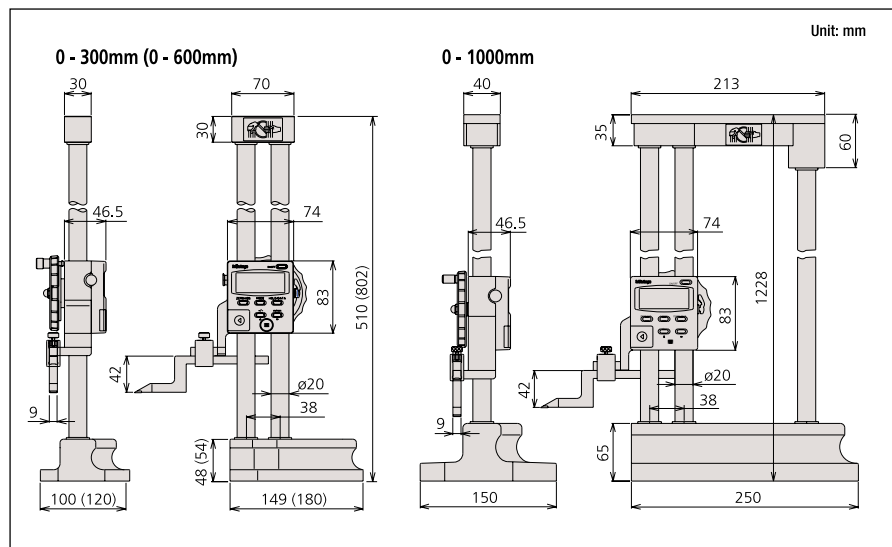
192-663

SPECIFICATIONS

Metric		
Range	Order No.	Accuracy
0 - 300mm	192-663-10	±0.02mm
0 - 600mm	192-664-10	±0.04mm
0 - 1000mm	192-665-10	±0.06mm

Inch/Metric		
Range	Order No.	Accuracy
0 - 12"	192-670-10	±.001"
0 - 18"	192-671-10	±.0015"
0 - 24"	192-672-10	±.0015"
0 - 40"	192-673-10	±.0025"

DIMENSION



Technical Data

Accuracy: Refer to the list of specifications. (excluding quantizing error for digital models)
 Resolution: 0.01mm
 Display: LCD, 6-digit
 Max. response speed: 500mm/s
 Battery: CR2032 lithium (1 pc.), 05SAA217
 Battery life: Approx. 2000 hours under normal use

Function

Zero-setting, ABS/INC switching, Presetting, Probe tip diameter compensation, +/- switching, Power ON/OFF, Data hold, Data output, inch/mm conversion (inch/mm models)
 Alarm: Low voltage, Counting value composition error

Standard Scriber Provided

Metric models: Carbide-tipped scriber (905200) and scriber clamp (05GZA033)
 Inch/Metric models: Carbide-tipped scriber (905201) and scriber clamp (901385)

Optional Accessory

905338: SPC cable (1m)
 905409: SPC cable (2m)
 905691: SPC cable (L-shape, 1m)
 905692: SPC cable (L-shape, 2m)
 192-007: Two-directional touch-signal probe (metric)
 192-008: Two-directional touch-signal probe (inch)
 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)



Digimatic Height Gage

SERIES 192 — Standard Type

Technical Data

Accuracy:	Refer to the list of specifications.(excluding quantizing error for digital models)
Resolution:	0.01mm or .0005"/0.01mm
Display:	LCD, 6-digit
Max. response speed:	500mm/s
Battery:	CR2032 lithium (1 pc.), 05SAA217
Battery life:	Approx. 2000 hours under normal use

Function

Zero-setting, ABS/INC switching, Presetting, Probe tip diameter compensation, +/- switching, Power ON/OFF, Data hold, Data output, inch/mm conversion (inch/mm models)

Alarm: Low voltage, Counting value composition error

Standard Scriber Provided

Metric models: Carbide-tipped scriber (07GZA000) and scriber clamp (05GZA033)

Inch/Metric models: Carbide-tipped scriber (900258) and scriber clamp (901385)

Optional Accessory

905338:	SPC cable (1m)
905409:	SPC cable (2m)
905691:	SPC cable (L-shape, 1m)
905692:	SPC cable (L-shape, 2m)
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)

FEATURES

- Easy-to-use standard type.
- Carbide-tipped scriber is provided.
- Double-column structure ensures high measuring accuracy.
- Coarse/fine feed switching.



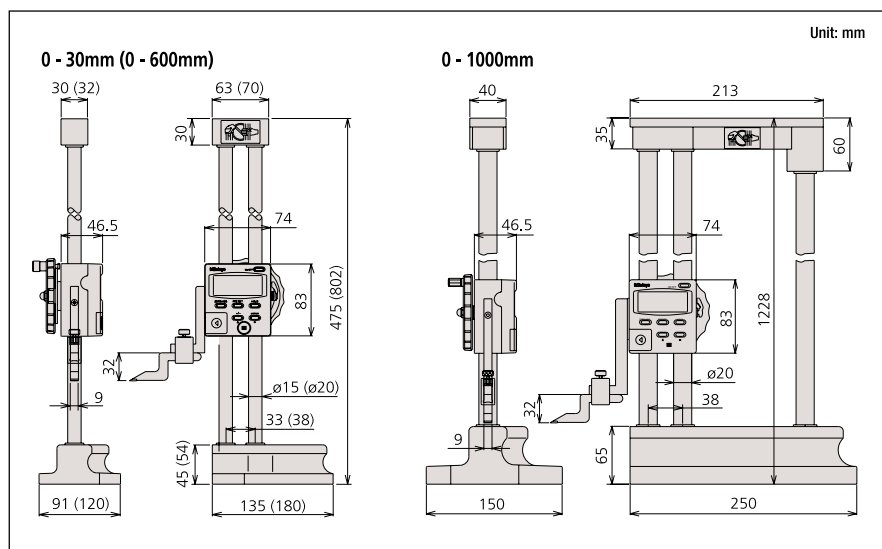
192-613

SPECIFICATIONS

Metric		
Range	Order No.	Accuracy
0 - 300mm	192-613-10	±0.02mm
0 - 600mm	192-614-10	±0.05mm
0 - 1000mm	192-615-10	±0.07mm

Inch/Metric		
Range	Order No.	Accuracy
0 - 12"	192-630-10	±.001"
0 - 18"	192-631-10	±.002"
0 - 24"	192-632-10	±.002"
0 - 40"	192-633-10	±.003"

DIMENSION



Power ON/OFF Slider feed wheel hold



Zero / ABS Preset +/- Switching Data hold / output

ABSOLUTE Digimatic Height Gage

SERIES 570 — with ABSOLUTE Linear Encoder

FEATURES

- Built-in ABSOLUTE linear encoder
This encoder eliminates the necessity of setting the reference point at every power-on. It has improved reliability because no over-speed error will occur.
- Fine-adjustment carriage to feed the slider finely.
- Carbide-tipped scriber is provided.
- With SPC data output.

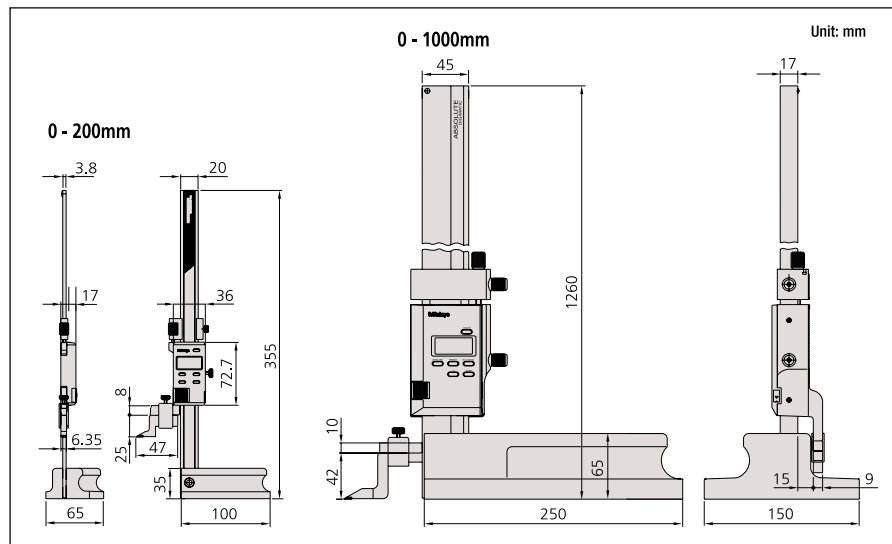


570-227

SPECIFICATIONS

Metric			Inch/Metric		
Range	Order No.	Accuracy	Range	Order No.	Accuracy
0 - 200mm	570-227	±0.03mm	0 - 8"	570-244	±.001"
0 - 1000mm	570-230	±0.07mm	0 - 40"	570-248	±.003"

DIMENSION



SPC

ABSOLUTE®
Absolute System Patented by MITUTOYO

Technical Data

Accuracy:	Refer to the list of specifications. (excluding quantizing error for digital models)
Resolution:	0.01mm or .0005"/0.01mm
Display:	LCD, 6-digit
Length standard:	ABSOLUTE electrostatic capacitance type linear encoder
Max. response speed:	Unlimited
Battery:	SR44 (1 pc.), 938882
Battery life:	Approx. 5000 hours under normal use

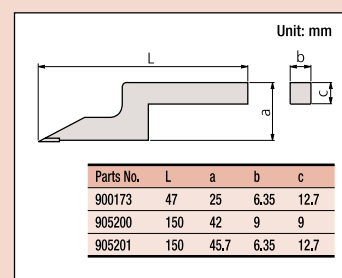
Function

Origin setting, ABS/INC switching, Presetting, +/- switching, Data hold, Data output, inch/mm conversion (inch/mm models)
Alarm: Low voltage, Counting value composition error

Standard Scriber Provided

Metric models: Carbide-tipped scriber (900173/905200*) and scriber clamp (901338 / 05GZA033*)
*0 - 1000mm model
Inch/Metric models: Carbide-tipped scriber (900173/905201*) and scriber clamp (901338/901385*)
*0 - 40" model

Dimension of scriber



Optional Accessory

905338:	SPC cable (1m)
905409:	SPC cable (2m)
953638:	Holding bar for test indicator (length: 50mm)
953639:	Holding bar for test indicator (length: 2")
902053:	Swivel clamp used with holding bar (metric)
900322:	Swivel clamp used with holding bar (inch)



Technical Data

Accuracy: Refer to the list of specifications.
(excluding quantizing error for digital models)
Resolution: 0.01mm or .0005"/0.01mm
Display: LCD, 6-digit
Length standard: ABSOLUTE electrostatic capacitance type linear encoder
Max. response speed: Unlimited
Battery: SR44 (1 pc.), 938882
Battery life: Approx. 20000 hours under normal use

Function

Origin setting, ABS/INC switching, Power ON/OFF, Data hold, Data output, inch/mm conversion (inch/mm models)

Alarm: Low voltage, Counting value composition error

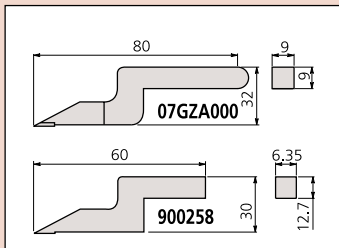
Standard Scriber Provided

Metric models: Carbide-tipped scriber (07GZA000), scriber clamp (05GZA033)

Inch/Metric models: Carbide-tipped scriber (900258), scriber clamp (901385)

Dimension of scriber

Unit: mm



Optional Accessory

- 905338: SPC cable (1m)
- 905409: SPC cable (2m)
- 953638: Holding bar for test indicator (length: 50mm)
- 953639: Holding bar for test indicator (length: 2")
- 902053: Swivel clamp used with holding bar (metric)
- 900322: Swivel clamp used with holding bar (inch)



Large smooth slider feed wheel



Large clamp lever



Fitted in your hand

Mitutoyo

ABSOLUTE Digimatic Height Gage

SERIES 570 — with ABSOLUTE Linear Encoder

FEATURES

- Built-in ABSOLUTE linear encoder
This encoder eliminates the necessity of setting the reference point at every power-on. It has improved reliability because no over-speed error will occur.
- Rigid column structure ensures high measuring accuracy.
- With large smooth slider feed wheel.
- Carbide-tipped scriber is provided.
- With SPC data output.



570-302

570-304

SPECIFICATIONS

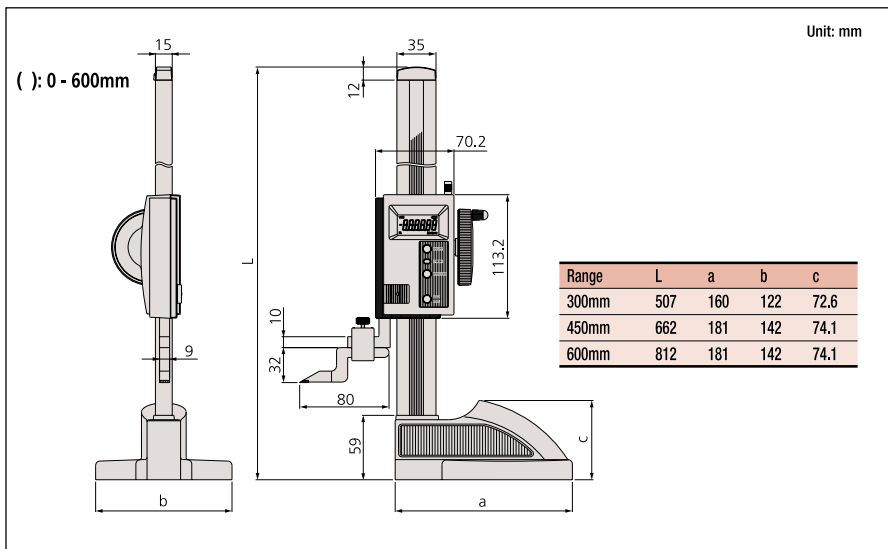
Metric

Range	Order No.	Accuracy
0 - 300mm	570-302	±0.03mm
0 - 600mm	570-304	±0.05mm

Inch/Metric

Range	Order No.	Accuracy
0 - 12"	570-312	±.0015"
0 - 18"	570-313	±.002"
0 - 24"	570-314	±.002"

DIMENSION



Dial Height Gage

SERIES 192 — with Digital Counter

FEATURES

- Easy and error-free reading with both up and down digital counters as well as a dial.
- Provided with a feed wheel for easy coarse feeding.
- Carbide-tipped scriber is provided.

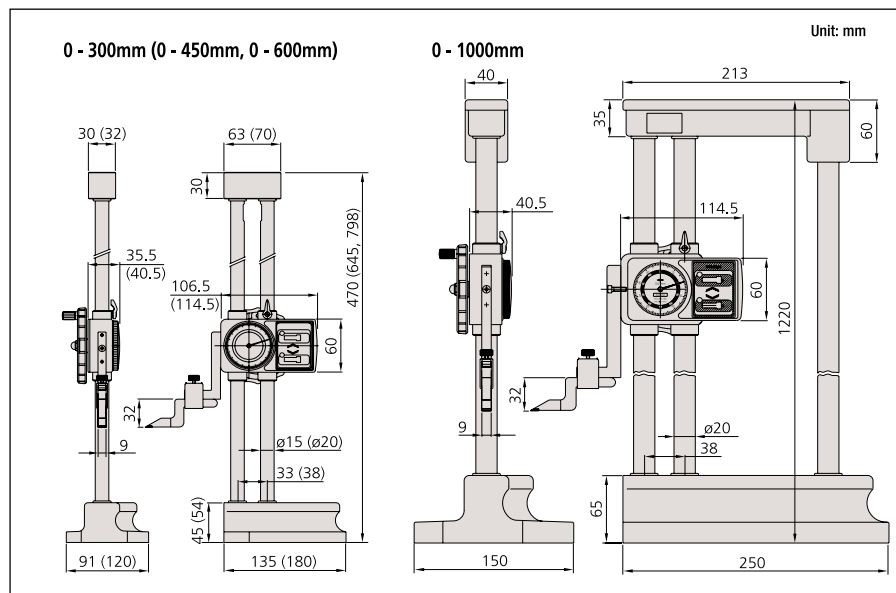


192-130

SPECIFICATIONS

Metric		
Range	Order No.	Accuracy
0 - 300mm	192-130	±0.03mm
0 - 450mm	192-131	±0.05mm
0 - 600mm	192-132	±0.05mm
0 - 1000mm	192-133	±0.07mm

DIMENSION



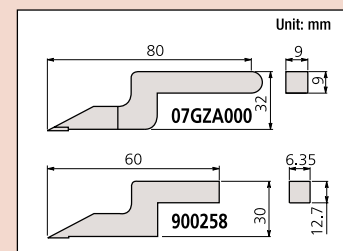
Technical Data

Accuracy: Refer to the list of specifications.
Dial reading: 0.01mm

Standard Scriber Provided

Metric models: Carbide-tipped scriber (07GZA000) and scriber clamp (05GZA033)
Inch/Metric models: Carbide-tipped scriber (900258) and scriber clamp (901385)

Dimension of scriber



Optional Accessory

- 953638: Holding bar for test indicator (length: 50mm)
900209: Holding bar for test indicator (length: 100mm)
900321: Swivel clamp used with holding bar (metric)



Fitted in your hand



Easy and secure clamping



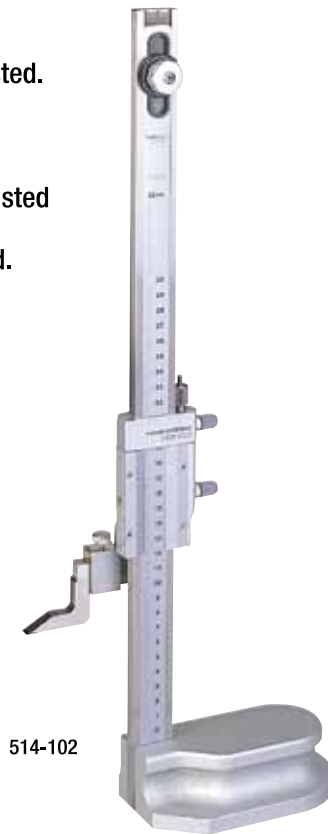
Easy and error free reading

Vernier Height Gage

SERIES 514 — Standard Height Gage with adjustable Main Scale

FEATURES

- Zero reference point can be adjusted.
- Stain chrome finished scales for glare-free reading.
- Extra-large base for rigidity.
- Final vernier readings can be assisted by an optional magnifier.
- Carbide-tipped scriber is provided.



514-102

SPECIFICATIONS

Metric

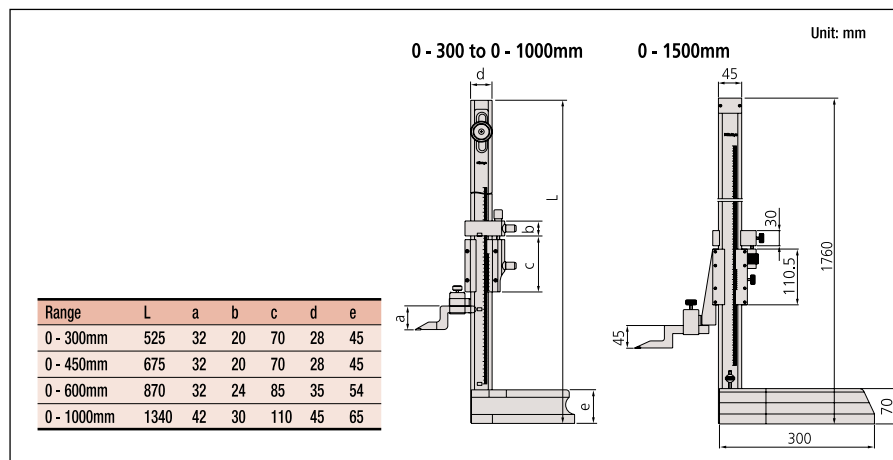
Range	Order No.	Accuracy	Remarks (R / L scale graduations / scale adjustment / slider fine feed / others)
0 - 300mm	514-102	±0.04mm	0.02mm — 15mm 4mm —
0 - 450mm	514-104	±0.05mm	0.02mm — 15mm 4mm —
0 - 600mm	514-106	±0.05mm	0.02mm — 15mm 7mm —
0 - 1000mm	514-108	±0.07mm	0.02mm — 25mm 6mm —
0 - 1500mm	514-170	±0.18mm	0.02mm — 25mm 20mm Provided with magnifier

Inch/Metric

Inch model with inch/metric double scale

Range	Order No.	Accuracy	Remarks (R / L scale graduations / scale adjustment / slider fine feed / others)
0 - 12"	514-103	±.002"	.001" 0.02mm .6" .16" —
0 - 18"	514-105	±.002"	.001" 0.02mm .6" .16" —
0 - 24"	514-107	±.002"	.001" 0.02mm .6" .27" —
0 - 40"	514-109	±.003"	.001" 0.02mm 1" .24" —

DIMENSION



Mitutoyo

Technical Data

Accuracy: ±0.04mm (≤300mm), ±0.05mm (≤600mm), ±0.07mm (≤1000mm), ±0.18mm (≤1500mm)

Graduation: 0.02mm or .001" (0.02mm)

Main scale adjustment: 15mm or 25mm

Slider fine feed: 4mm, 6mm, 7mm or 20mm

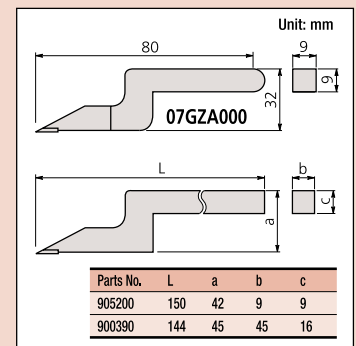
Standard Scriber Provided

Up to 600mm: Carbide-tipped scriber (07GZA000) and scriber clamp (05GZA033)

0 - 1000mm: Carbide-tipped scriber (905200) and scriber clamp (05GZA033)

0 - 1500mm: Carbide-tipped scriber (900390) and scriber clamp (905008)

Dimension of scriber



Optional Accessory

07GZA003: Magnifier for 300, 450mm, 600mm models

07GZA015: Magnifier for 1000mm models

953638: Holding bar for test indicator (length: 50mm)

902053: Swivel clamp used with holding bar



Vernier Height Gage

SERIES 506 — Light Weight Height Gage

FEATURES

- Light weight type can measure easily the height of small parts.
- Stain chrome finished scales for glare-free reading.
- Beam and slider are made of stainless steel.
- Carbide-tipped scriber is provided.



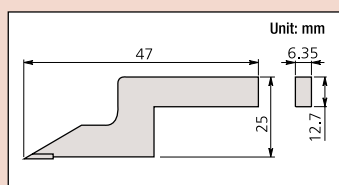
Technical Data

Accuracy: $\pm 0.03\text{mm}$ ($\leq 200\text{mm}$), $\pm 0.04\text{mm}$ ($\leq 250\text{mm}$),
Graduation: 0.02mm or $.001''$ (0.02mm)

Standard Scriber Provided

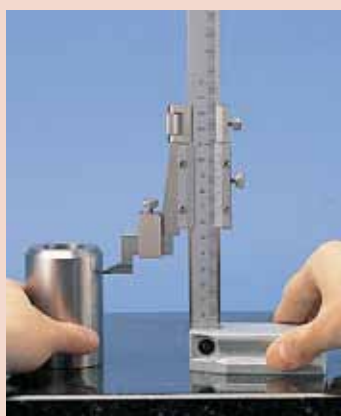
Carbide-tipped scriber (900173)
and scriber clamp (901338)

Dimension of scriber



Optional Accessory

- 953639: Holding bar for test indicator (length: 50mm)
900322: Swivel clamp used with holding bar



SPECIFICATIONS

Metric

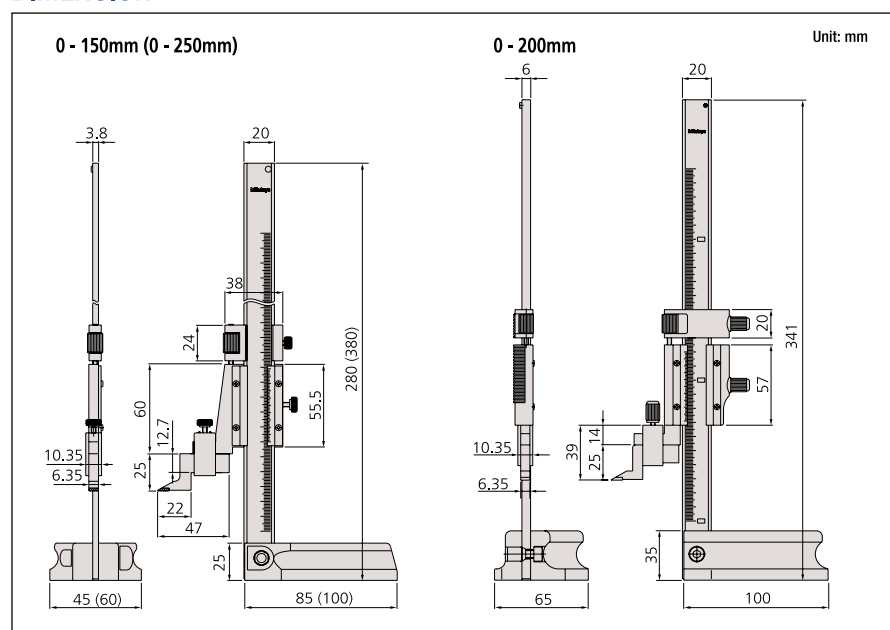
Range	Order No.	Accuracy	Remarks (R / L scale graduations)
0 - 200mm	506-207	$\pm 0.03\text{mm}$	0.02mm —

Inch/Metric

Inch model with inch/metric double scale

Range	Order No.	Accuracy	Remarks (R / L scale graduations)
0 - 8"	506-208	$\pm .001''$	$.001''$ 0.02mm

DIMENSION



CERA Caliper Checker

SERIES 515

FEATURES

- The CERA Caliper Checker is designed to inspect vernier, dial and Digimatic calipers of various types. It is comprised of permanently wrung, high-grade CERA gauge blocks in a protective casting.
- The CERA Caliper Checker also stands perpendicular to a surface for height gage inspection.
- Each measuring block (CERA block) is made of zirconia-based ceramic and it free from deterioration and dimensional change over time.



SPECIFICATIONS

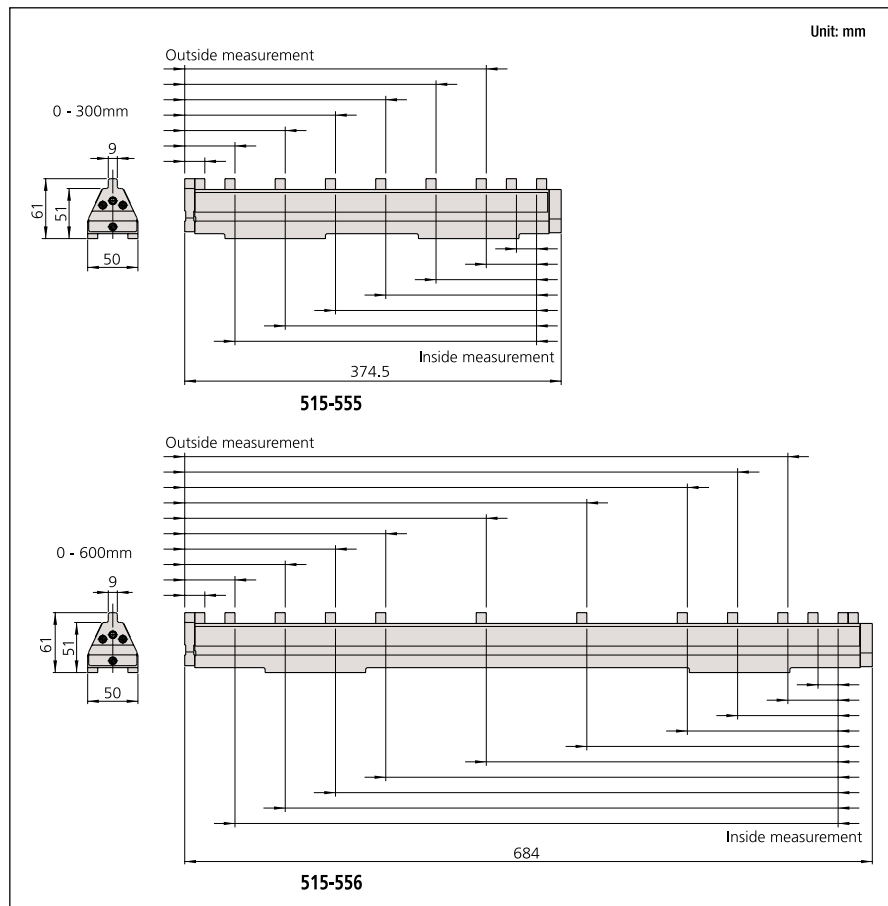
Metric

Range	Order No.	Remarks (length to check)
0 - 300mm	515-555	Outside measurement: 20, 50, 100, 150, 200, 250, 300mm Inside measurement: 20, 50, 100, 150, 200, 250, 300mm
0 - 600mm	515-556	Outside measurement: 20, 50, 100, 150, 200, 300, 400, 500, 550, 600mm Inside measurement: 20, 50, 100, 150, 250, 350, 450, 500, 550, 600mm

Inch

Range	Order No.	Remarks (length to check)
0 - 12"	515-565	Outside measurement: 1", 2", 4", 6", 8", 10", 12" Inside measurement: 1", 2", 4", 6", 8", 10", 12"

DIMENSION



Mitutoyo



Technical Data

Block pitch accuracy: $\pm 0.005\text{mm}$ for range up to 300mm
 $\pm 0.007\text{mm}$ for range up to 600mm
 Parallelism of blocks: 0.002mm for range up to 300mm
 0.004mm for range up to 600mm

Optional Accessory

602162: Wooden case for 300mm model
 602164: Wooden case for 600mm model

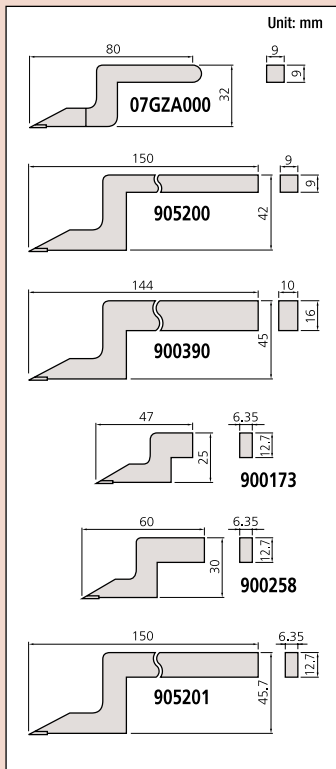


Used for caliper



Used for height gage

Dimension of scriber



Carbide-tipped Scriber

Optional Accessory for Height Gage

FEATURES

- Used the appropriate scriber and clamp for each height gage.

SPECIFICATIONS

Metric	
Order No.	Remarks (applicable height gage)
07GZA000	192 series Digimatic height gages (192-613, 192-614, 192-615)
	570 Series Digimatic Height Gages (570-302, 570-304)
	192 Series Dial Height Gages (192-130, 192-131, 192-132, 192-133)
	514 Series Vernier Height Gages (514-102, 514-104, 514-106, 514-103, 514-105, 514-107)
	574 Series Heightmatic (574-112-1, 574-111-1, 574-110-1)
905200	192 Series Digimatic Height Gages (192-663, 192-664, 192-665)
	570 Series Digimatic Height Gages (570-230)
	514 Series Vernier Height Gages (514-108, 514-109)
900390	514 Series Vernier Height Gage (514-170)

Inch	
Order No.	Remarks (applicable height gage)
900173	570 series Digimatic height gages (570-227, 570-244)
	506 Series Vernier Height Gages (506-201, 506-202, 506-204, 506-205, 506-207, 506-208)
	509 Series Vernier Height Gages (509-301, 509-302, 509-313, 509-314)
900258	192 Series Digimatic Height Gages (192-630, 192-631, 192-632, 192-633)
	570 Series Digimatic Height Gages (570-312, 570-313, 570-314)
	574 Series Heightmatic (574-212-1, 574-211-1, 574-210-1)
905201	192 Series Digimatic Height Gages (192-670, 192-671, 192-672, 192-673)
	570 Series Digimatic Height Gages (570-248)

Optional Accessories

Optional Accessory for Height Gage



Contact Sensor

FEATURES

- The contact sensor eliminates errors caused by jacking-up the height gage while taking measurements. When the scriber of a height gage touches a conductive workpiece, an indicator will light up to indicate that measurement can be taken, which will result in consistent height measurement.
- Battery (2 pcs. PR44 required) is not included.

SPECIFICATIONS

Order No.: 900872



Center Probe

FEATURES

- Allows quick measurement of center-to-center distance between holes.
- Measurable hole diameters: $\varnothing 1 - \varnothing 38\text{mm}$

SPECIFICATIONS

Order No.: 951144 (with metric type holding bar)
900581 (with inch type holding bar)



Depth Gage Attachment

FEATURES

- Attached to a height gage to measure 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)
- Contact points for dial indicator is available.

SPECIFICATIONS

Order No.: 900878 (with metric type holding bar)
900764 (with inch type holding bar)