



WPI END-OF-YEAR PROMO

Mitutoyo Precision Tools & Instruments — In Stock Now.





Promo pricing valid through December 31, 2021

Phone: 866-945-5742 | General Questions Email: info@willrich.com | www.willrich.com

Purchase the world's first 5µinch /0.1µm resolution micrometer and receive a USB input tool and cable (\$252 value)

Using precision digital measuring tools together with a USB input tool improves both measurement results and data reliability. The latest version of Digimatic output, d2, allows output to a resolution of 1 millionths of an inch. The high-accuracy MDH with 5 millionths resolution can output in its entirety in both inch and metric. Resulting data can

input directly to Excel®, MeasurLink® or other SPC programs.

To receive this special offer, use promo code: **PROMO026**.

> Range: 0-1", Resolution: .000005", Accuracy: +/- .000020

Order No.	Description	List Price
PROMO026	Package: MDH Mic, SPC Cable, USB Input Tool	\$1,680.00
293-130-10	MDH Micrometer with high accuracy, high resolution output	\$1,680.00
05CZA662	SPC CONNECTING CABLE (1M)	\$83.80
264-016-10	USB INPUT TOOL	\$197.00

Promo \$1,428.00



TM Toolmakers' Microscopes

- > Adjustable illumination intensity.
- > Angle measurement is performed easily by turning the angle scale disc to align the cross-hair reticle with the workpiece image.
- > Includes standard accessories create an overall magnification of 30X. Magnifications can be changed from 20 - 200X by using optional objectives and/or eyepieces.
- >.000050" resolution digimatic micrometer heads included.



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Model No.		TM-A505B	TM-A1005B		
Order No.		176-820A	176-821A		
Eyepiece		Standard accessory: 15X (field	number: 13), Options: 10X, 20X		
Objective lens		Standard accessory	: 2X, Options: 5X, 10X		
Microscope head	Maximum height of workpiece	4.53" / 115mm	4.21" / 107mm		
Illumination	Transmitted illumination	Stepless brightness adjustment, White LED light source, with green filter			
unit	Surface illumination	Oblique single-source type, Stepless brightness adjustment, White LED light source			
Cross-travel	Measuring range	2" x 2" / 50×50mm	4" x 2" / 100×50mm (An optional 2"/50mm gage block is required to cover full range. A CERA block is recommended.)		
stage	Usable area of the stage glass	3.8" x 3.8" / 96×96mm	6" x 3.8" / 154×96mm		
	Maximum stage glass loading	11	os. / 5kg		
Linear measureme	ent method	Micrometer	heads included		
	List	\$5,590.00	\$7,290.00		
	Promo	\$4,751.50	\$6,196.50		

www.willrich.com

Bench Top

Laser Scan Micrometer LSM-9506

> Integrated display and measuring unit in one unit.

MeasurLink® ENABLED

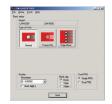
Data Management Software by Mitutoyo

- > Statistical calculation mode.
- > RS-232C output, I/O interface and SPC output interface are standard.
- > Accuracy: .0001"



Order No.	Range	Resolution	List	Promo
544-116-1A	.020" - 2.36"/0.5mm - 60mm	.000002"005"/0.00005 - 0.1mm	\$8,940.00	\$7,599.00

QUICKTOOL* is a free, downloadable software that makes programming the laser quick and easy. *For use with customer-supplied PC and optional RS-232C cable.







High-Accuracy Non-Contact Measuring Systems

- > Excellent accuracy: down to +/- 12 µinches
- > High-speed scanning capable: 3,200 scans per second.
- > Various ranges available for selecting the best laser for your application.
- > Statistical calculation mode.
- > Memory function allows storage of up to 100 programs.
- > Standard RS-232C output and I/O interface. Optional Digimatic output.



Order No.	Model	Range Inch	Range mm	Repeatability	Accuracy	Scanning Rate	List	Promo
64PKA117	LSM-500S	.0002"08"	0.005~2mm	±0.03µm	±0.3µm	3,200 scans/sec	\$10,370.00	\$8,814.50
64PKA118	LSM-501S	.002"4"	0.05~10mm	±0.04µm	±0.5µm [†]	3,200 scans/sec	\$9,330.00	\$7,930.50
64PKA119	LSM-503S	.012" - 1.18"	0.3~30mm	±0.11µm	±1.0μm [†]	3,200 scans/sec	\$10,110.00	\$8,593.50
64PKA120	LSM-506S	.04" - 2.36"	1~60mm	±0.36µm	±3µm [†]	3,200 scans/sec	\$11,480.00	\$9,758.00
64PKA121	LSM-512S	.04" - 4.72"	1~120mm	±0.85µm	±6µm†	3,200 scans/sec	\$17,680.00	\$15,028.00
64PKA122	LSM-516S	.04" - 6.30"	1~160mm	±1.4μm	±7µm†	3,200 scans/sec	\$28,480.00	\$24,208.00

[†] Accuracy over entire range. Higher accuracies are possible over smaller ranges.





QUICKTOOL* is free downloadable software that makes programming the LSM-6200 quick and easy. *For use with customer-supplied PC and optional RS-232C cable.







High-Performance 2D Linear Height LH-600E

The Mitutoyo Linear Height LH-600E offers advanced performance for reliable and easy 2D measurement.

Measuring Range (stroke) 0-38"(24") / 0-972mm(600mm)

- >0.1µm/1µinch resolution.
- > Excellent accuracy of (1.1+0.6L/600)µm with 0.4µm repeatability.
- > Perpendicularity of 5µm and straightness of 4µm are guaranteed.
- > Pneumatic full/semi-floating system.
- > One-key operation for running a semi-automatic measurement.
- > Measure hole diameters, gap distances, and even 2D measurements such as diagonal center-to-center distances.
- The origin can be set at the top of a surface plate, centerline, top or bottom surfaces, or peak top or bottom points on radii.





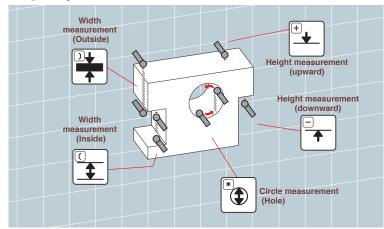
518-352A-21







Frequently Used Measurements

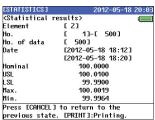


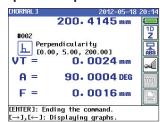


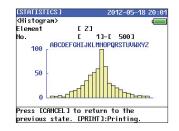
Mitutoyo

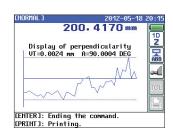
600

Screen Display & Printer Output Examples









Calibration Included



*Complimentary accredited calibration applies to orders placed through December 31, 2021. Mitutoyo America Corporation reserves the right to change or discontinue this offer at any time. This offer is void wherever prohibited or restricted by law. No cash value. Complimentary accredited calibration will be conducted prior to unit shipping and cannot be applied toward previously placed orders. Refer to our terms and conditions for further details.

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Order	No.	Base No.	Range (Stroke)	Resolution	Remarks	List	Promo
PROMO	0027	518-351A-21	0 - 977mm (600mm)	0.0001/0.001/0.01/0.1mm	_	\$8,718.00	\$7,410.30
PROMO	0028	518-352A-21	0 to 38" (24")	.000001/.00001/.0001/.001"(selectable)	w/power grip	\$9,228.00	\$7,843.80

Linear Height Styli Kit



Optional Accessories

Order No.	rder No. Description		Promo
K650986	STYLI KIT M3 LINEAR HEIGHT	\$500.00	\$425.00

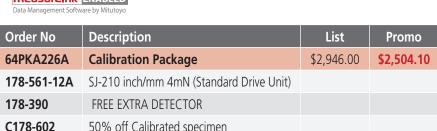
Surftest SJ-210 Packages

- > Large color LCD display
- > Easy-to-use buttons for quick operations
- > Displays measurement results, evaluation curves and waveform
- > Supports global industry standards
- > Password protect function prevents unintended operations

50% off Calibrated specimen

> 16 languages supported





Order No.	Description	List	Promo
64PKA227A	Data Collection Package	\$3,259.00	\$2,770.15
178-561-12A	SJ-210 inch/mm 4mN (Standard Drive Unit)		
02AZD730G	U-WAVE TRANSMITTER		
02AZD790D	U-WAVE connecting cable D		
02AZD810D	FREE U-WAVE RECEIVER		









www.willrich.com

Borematic

Quick, spring-loaded lever action/movement

- > Titanium-coated measuring pins provide excellent durability and impact resistance and allows the instrument to measure close to the bottom of blind holes.
- > Digital display with quick-action lever operation enables quick and easy measurement.
- > Built-in ABSOLUTE System eliminates the need to set the origin point every time the unit is turned on. The system is immune to over-speed errors, thus increasing the reliability of measurement.
- > Digimatic Borematic is compatible with statistical process control systems and measurement support systems.
- > Built-in tolerance judgment function allows GO/NO-GO judgment based on user-defined upper and lower limit settings.

MeasurLink® ENABLED

ABSOLUTE®



Individual Gages: includes one digital display unit and one interchangeable measuring head (plus adapter if required)

Order No.	Size Range	Accuracy	Extension Rod	List	Promo
568-461	0.275" - 0.350"	_		\$1,450.00	\$1,232.50
568-462	0.350" - 0.425"	±5µm ±0.00025 in	100mm (952322)	\$1,450.00	\$1,232.50
568-463	0.425" - 0.500"	20.00025 111		\$1,450.00	\$1,232.50
568-464	0.50" - 0.65"	±5µm	1F0mm (0F2621)	\$1,480.00	\$1,258.00
568-465	0.65" - 0.80"	±0.00025 in	150mm (952621)	\$1,480.00	\$1,258.00
568-466	0.8" - 1.0"			\$1,480.00	\$1,258.00
568-467	1.0" - 1.2"		150mm (952622)	\$1,530.00	\$1,300.50
568-468	1.2" - 1.6"			\$1,700.00	\$1,445.00
568-469	1.6" - 2.0"			\$1,700.00	\$1,445.00
568-470	2.0" - 2.5"	±6μm		\$1,660.00	\$1,411.00
568-471	2.5" - 3.0"	±0.0003 in		\$1,720.00	\$1,462.00
568-472	3.0" - 3.5"		1E0mm (0E2622)	\$1,750.00	\$1,487.50
568-473	3.5" - 4.0"		150mm (952623)	\$1,750.00	\$1,487.50
568-474	4.0" - 4.5"			\$1,830.00	\$1,555.50
568-475	4.5" - 5.0"			\$1,930.00	\$1,640.50

Complete Unit Gage Sets: includes several individual gages to cover the overall size range of the set

Order No.	Overall Range	Range of Individual Gages	Setting Rings	List	Promo
568-965	0.275" - 0.5"	0.275-0.35", 0.35-0.425", 0.425-0.5"	0.35" DIA., 0.425" DIA.	\$5,010.00	\$4,258.50
568-966	0.5" - 1"	0.5-0.65", 0.65-0.8", 0.8-1"	0.65" DIA., 0.8" DIA.	\$5,230.00	\$4,445.50
568-967	1" - 2"	1-1.2", 1.2-1.6", 1.6-2"	1.2" DIA., 1.6" DIA.	\$5,460.00	\$4,641.00
568-968	2" - 3"	2-2.5", 2.5-3"	2.5" DIA.	\$3,910.00	\$3,323.50
568-969	3" - 4"	3-3.5", 3.5-4"	3.5" DIA.	\$4,340.00	\$3,689.00

Interchangeable-Head Sets

Order No.	Overall Range	Range of Individual Gages	Setting Rings	List	Promo
568-928	0.275" - 0.5"	0.275-0.35", 0.35-0.425", 0.425-0.5"	0.35" DIA., 0.425" DIA.	\$2,230.00	\$1,895.50
568-929	0.5" - 1"	0.5-0.65", 0.65-0.8", 0.8-1"	0.65" DIA., 0.8" DIA.	\$2,530.00	\$2,150.50
568-930	1" - 2"	1-1.2", 1.2-1.6", 1.6-2"	1.2" DIA., 1.6" DIA.	\$3,080.00	\$2,618.00
568-936	2" - 4"	2-2.5", 2.5-3", 3-3.5", 3.5-4"	2.5" DIA., 3.5" DIA.	\$4,440.00	\$3,774.00

Includes one digital display unit with several interchangeable measuring heads (and adapters as required) to cover the total size range plus one extension rod



Technical Data

Resolution: 0.001mm or 0.00005 in/0.001mm Display: LCD

Display: Response

speed: Infinite

Battery: SR44 (1 pc), **938882**,

for initial operational checks (standard accessory)

Battery life: Approx. 5,000 hours in

continuous use

Scale type: Electrostatic capacitance absolute

encoder

Functions

GO/NO-GO judgment, GO/NO-GO judgment zoom, 2-Point Preset, Zero-setting, Data hold, Error alarm, Low battery voltage alert, Data output, Function Lock, 330° rotary display, inch/mm conversion (inch/mm models)





Digimatic Holtest

- > TiN-coated measuring contact points provide excellent durability and impact resistance and allows the instrument to measure close to the bottom of blind holes (up to 4"/100mm models).
- > Large LCD readout.
- > Functions available: Presetting, Zero/ABS, Auto power On/Off, Data hold, Data output, Error alarm, Battery replacement alarm.
- > With ratchet stop for constant force.
- > Measure deep holes by attaching an extension rod (optional).
- > Setting rings are included in sets, but optional for individual gages.
- > Supplied in fitted plastic case up to 4"/100mm. Over 4"/100mm supplied in wooden case.
- > Resolution: .00005"/0.001mm (over 4" models: .0001"/0.001mm)

Digimatic Ho	oltests – Individual Units		
Order No.	Range	List	Promo
468-261	Digimatic Holtest, .27535"	\$1,110.00	\$943.50
468-262	Digimatic Holtest, .35"425"	\$1,110.00	\$943.50
468-263	Digimatic Holtest, .4255"	\$1,120.00	\$952.00
468-264	Digimatic Holtest, 0.5" - 0.65"	\$1,220.00	\$1,037.00
468-265	Digimatic Holtest, 0.65" - 0.8"	\$1,220.00	\$1,037.00
468-266	Digimatic Holtest, 0.8" - 1"	\$1,250.00	\$1,062.50
468-267	Digimatic Holtest, 1.0 - 1.2"	\$1,250.00	\$1,062.50
468-269	Digimatic Holtest, 1.6" - 2.0"	\$1,290.00	\$1,096.50
468-270	Digimatic Holtest, 2" - 2.5"	\$1,400.00	\$1,190.00
468-271	Digimatic Holtest, 2.5" - 3"	\$1,400.00	\$1,190.00
468-272	Digimatic Holtest, 3" - 3.5"	\$1,420.00	\$1,207.00
468-273	Digimatic Holtest, 3.5" - 4"	\$1,440.00	\$1,224.00
468-274	Digimatic Holtest, 4" - 5"	\$1,880.00	\$1,598.00
468-275	Digimatic Holtest, 5" - 6"	\$1,930.00	\$1,640.50
468-276	Digimatic Holtest, 6" - 7"	\$2,050.00	\$1,742.50
468-277	Digimatic Holtest, 7" - 8"	\$2,140.00	\$1,819.00
468-278	Digimatic Holtest, 8" - 9"	\$2,280.00	\$1,938.00
468-279	Digimatic Holtest, 9" - 10"	\$2,330.00	\$1,980.50
468-280	Digimatic Holtest, 10" - 11"	\$2,410.00	\$2,048.50
468-281	Digimatic Holtest, 11" - 12"	\$2,520.00	\$2,142.00
Digimatic Ho	oltests – Interchangeable Head Sets		
468-976	Digimatic Holtest Head Set, 0.275" - 0.5"*	\$2,030.00	\$1,725.50
468-977	Digimatic Holtest, Head Set, 0.5" - 0.8"*	\$1,650.00	\$1,402.50
468-978	Digimatic Holtest, Head Set, 0.8" - 2"*	\$4,120.00	\$3,502.00
468-979	Digimatic Holtest, Head Set, 2" - 4"*	\$4,720.00	\$4,012.00
468-980	Digimatic Holtest, Head Set, 4" - 8"*	\$5,540.00	\$4,709.00
Digimatic Ho	oltests – Complete Unit Sets		
468-986	Digimatic Holtest, Unit-Set, 0.275" - 0.5"*	\$3,960.00	\$3,366.00
468-987	Digimatic Holtest, Unit-Set, 0.5" - 1"*	\$4,200.00	\$3,570.00
468-988	Digimatic Holtest, Unit-Set, 1" - 2"*	\$4,760.00	\$4,046.00
468-989	Digimatic Holtest, Unit-Set, 2" - 3"*	\$5,350.00	\$4,547.50
468-990	Digimatic Holtest, Unit-Set, 3" - 4"*	\$6,290.00	\$5,346.50





Measuring Deep Holes

An extension rod (optional accessory) can be fitted to provide measurement of deep holes.









Interchangeable-Head Set

Holtest

- > Titanium-coated measuring pins provide excellent durability and impact resistance and allows the instrument to measure close to the bottom of
- > Three-point design ensures self-centering action for stable measurements in the range above .275" bore diameter.
- > With ratchet stop for constant force.

Mechanical Holtests – Individual Units					
Order No.	Description/Range	List	Promo		
368-021	Holtest, 0.08" - 0.1"	\$1,500.00	\$1,200.00		
368-022	Holtest, 0.1" - 0.12"	\$1,500.00	\$1,200.00		
368-023	Holtest, 0.12" - 0.16"	\$1,210.00	\$968.00		
368-024	Holtest, 0.16" - 0.2"	\$1,210.00	\$968.00		
368-025	Holtest, 0.2" - 0.24"	\$1,210.00	\$968.00		
368-026	Holtest, 0.24" - 0.28"	\$1,210.00	\$968.00		
368-261	Holtest, 0.275" - 0.35"	\$599.00	\$479.20		
368-262	Holtest, 0.35" - 0.425"	\$599.00	\$479.20		
368-263	Holtest, 0.425" - 0.5"	\$599.00	\$479.20		
368-264	Holtest, 0.5" - 0.65"	\$621.00	\$496.80		
368-265	Holtest, 0.65" - 0.8"	\$621.00	\$496.80		
368-266	Holtest, 0.8" - 1.0"	\$645.00	\$516.00		
368-267	Holtest, 1.0" - 1.2"	\$645.00	\$516.00		
368-268	Holtest, 1.2" - 1.6"	\$806.00	\$644.80		
368-269	Holtest, 1.6" - 2.0"	\$850.00	\$680.00		
368-270	Holtest, 2.0" - 2.5"	\$855.00	\$684.00		
368-271	Holtest, 2.5" - 3.0"	\$928.00	\$742.40		
368-272	Holtest, 3.0" - 3.5"	\$953.00	\$762.40		
368-273	Holtest, 3.5" - 4.0"	\$997.00	\$797.60		
368-274	Holtest, 4.0" - 5.0"	\$1,280.00	\$1,024.00		
368-275	Holtest, 5.0" - 6.0"	\$1,450.00	\$1,160.00		
368-276	Holtest, 6.0" - 7.0"	\$1,490.00	\$1,192.00		
368-277	Holtest, 7.0" - 8.0"	\$1,540.00	\$1,232.00		
368-278	Holtest, 8.0" - 9.0"	\$1,750.00	\$1,400.00		
368-279	Holtest, 9.0" - 10"	\$1,960.00	\$1,568.00		
368-280	Holtest, 10" - 11"	\$1,980.00	\$1,584.00		
368-281	Holtest, 11" - 12"	\$2,030.00	\$1,624.00		
	Holtests – Complete Unit Sets				
368-916	Holtest, Set, 0.275" - 0.5"*	\$2,210.00	\$1,768.00		
368-917	Holtest, Set, 0.5" - 0.8"*	\$1,490.00	\$1,192.00		
368-918	Holtest, Set, 0.8" - 2.0"*	\$3,410.00	\$2,728.00		
368-919	Holtest, Set, 2.0" - 4.0"*	\$4,860.00	\$3,888.00		
368-920	Holtest, Set, 4.0" - 8.0"*	\$7,440.00	\$5,952.00		
368-926	Holtest, 2pc Set, .08"12"*	\$3,190.00	\$2,552.00		
368-927	Holtest, 4pc Set, .12"28"*	\$5,090.00	\$4,072.00		
368-995	HOLTEST, SET, TYPE II, R, 0.58"	\$1,360.00	\$1,088.00		
368-996	HOLTEST, SET, TYPE II, R, 0.8 - 2"	\$3,120.00	\$2,496.00		
368-997	HOLTEST, SET, TYPE II, R, 2 - 4"	\$4,390.00	\$3,512.00		
368-998	HOLTEST, SET, TYPE II, R, 4 - 8"	\$6,840.00	\$5,472.00		

Holtest Type II

- > The anvils and cone are made from an alloy tool steel with a hardness of HRC60.5 or more.
- > Three-point design ensures self-centering action for stable measurements in the range above .275" bore diameter.
- > With ratchet stop for constant force.





Measuring Deep Holes An extension tube (optional accessory) can be fitted to enable measurement of deep holes.

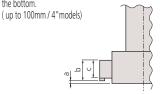


TiN coated contact points



Measuring a Blind Hole

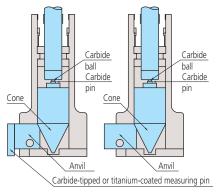
The measuring contact points held in the jaws permit measuring the diameter of a blind hole to



Range	а	b	С
6 - 12mm / .2755"	2	_	2.5
12 - 20mm / .58"	0.3	5.6	3.5
20 - 30mm / .8 - 1.2"	0.3	8.3	5.2
30 - 50mm / 1.2 - 2"	0.3	13	10
50 - 100mm / 2 - 4"	0.3	17	14
100 - 300mm / 4 - 12"	12.4	21	13.8

Inspection Certificate Supplied as Standard

An Inspection Certificate is supplied with each instrument, which assures product quality and safety. On request, Mitutoyo can issue a Calibration Certificate, at a cost, from our accredited calibration laboratory.





We reserve the right to change prices and specifications without notice.

