

# Mitutoyo

## PRECISION TOOL SALE

### WINTER 2018 ❄️

# Mitutoyo



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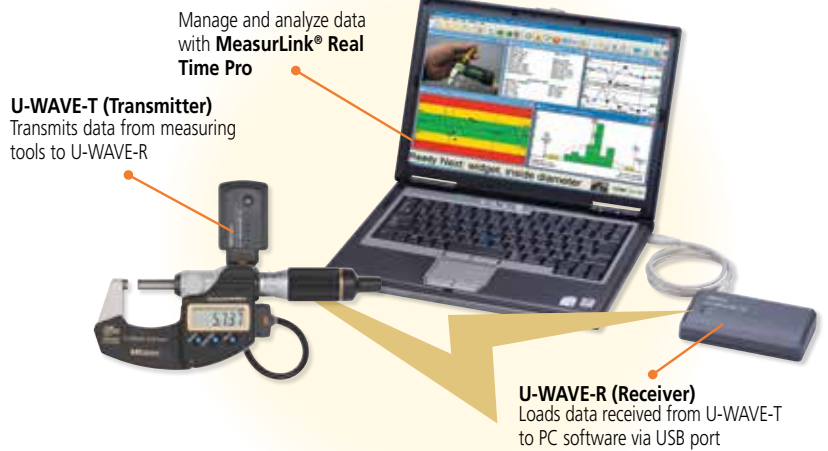
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## U-WAVE WIRELESS MEASUREMENT COMMUNICATION SYSTEM

- > Wireless data communication from a measuring Tool to a PC using the Digimatic protocol
- > Eliminates long and cumbersome data cables
- > Allows data to be loaded into any software product that accepts keyboard input, such as Excel or Notepad

**MeasurLink® ENABLED**  
Data Management Software by Mitutoyo



### U-Wave Connection Cables

Order No.	Description	Promo
02AZD790A	Water-proof Caliper	<b>\$ 122.36</b>
02AZD790B	Water-proof Micrometer	
02AZD790C	Digimatic Caliper	
02AZD790D	10 pin flat type (Digimatic Indicator)	
02AZD790E	6 pin round type (Digimatic Micrometer)	
02AZD790F	Straight flat type (Digimatic Caliper/Height Gauge/Indicator)	
02AZD790G	Water-proof Indicator (ID-B/D-N)	

### U-Wave Receivers & Transmitters

02AZD810D	U-Wave-R Receiver		<b>\$ 551.08</b>
02AZD880D	U-Wave-T Transmitter	Buzzer type	<b>\$ 242.88</b>
02AZD730D	U-Wave T Transmitter	IP67 type	<b>\$ 247.48</b>

### HOW TO ORDER U-WAVE:

1. One **U-Wave-R** required per system (supports up to 100 **U-Wave-T** units).
2. One **U-Wave-T** required for each digimatic Mitutoyo tool.
3. Select appropriate cable for each tool (connects measuring tool to **U-Wave-T**).



## AOS - ABSOLUTE Digimatic Calipers

- > Mitutoyo ABS Digimatic Caliper with exclusive AOS sensor technology. This patented Advanced Online Sensor (AOS) offers improved measurement dependability by increasing resistance to harsh workshop conditions

Range	Order No.	Resolution	Promo	Calibration
0-4"/0-100mm	<b>500-170-30<sup>1</sup></b>	.0005"/0.01mm	<b>\$ 190.44</b>	\$ 39.00
0-6"/0-150mm	<b>500-171-30</b>	.0005"/0.01mm	<b>\$ 209.95</b>	
0-6"/0-150mm	<b>500-178-30<sup>1</sup></b>	.0005"/0.01mm	<b>\$ 303.05</b>	
0-8"/0-200mm	<b>500-172-30</b>	.0005"/0.01mm	<b>\$ 276.45</b>	\$ 51.00
0-8"/0-200mm	<b>500-177-30<sup>2</sup></b>	.0005"/0.01mm	<b>\$ 454.48</b>	

**Remarks:** <sup>1</sup> .075" rod depth bar    <sup>2</sup> Carbide-tipped jaws for OD/ID

### Optional Accessories

959149	SPC Cable 40"/1m	\$61.50
959150	SPC Cable 80"/2m	\$69.00
02AZD790C	U-WAVE Cable	refer to above



## WORKSHOPS



### Join us for FREE half day workshops (Mississauga)

- > Complimentary breakfast provided
- > Workshops run from 8:45 am to approximately 11:45am
- > Book early, there is a limited number of spots for each workshop
- > Register on-line at [www.mitutoyo.ca](http://www.mitutoyo.ca)

Sign up here for Workshops



Date	Topic & Description
Thursday, March 22, 2018	<b>Small Tool Repair:</b> How to maintain commonly used precision hand tools, Basic maintenance and repair techniques, accessing and identifying parts
Thursday, June 7, 2018	<b>GD&amp;T:</b> Understanding the terminology in geometric dimensioning and tolerancing. Form, Fit and Function - how controls work to define the measurement of parts and features. Examples of GD&T Callouts and how to evaluate the best measuring device for the Callout.

### Vernier Caliper

- > Measures OD, ID, depth and steps
- > Dual reading scales (metric/inch)
- > High accuracy model
- > Lock screw
- > 14° face angle



Range	Order No.	Graduation	Promo	Calibration
0-150mm / 0-6"	<b>530-312</b>	.02mm / .001"	\$ <b>102.60</b>	\$ 39.00

### ABSOLUTE Coolant Proof Calipers - IP67

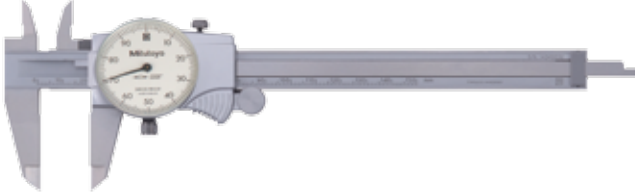
- > Larger LCD character for best visibility
- > Improved battery life lasts 5 years
- > Simple one-switch design is easy and ergonomic
- > 100% air leak test ensures every caliper is compliant
- > Battery cap does not require a screw driver for battery replacement



Range	Order No.	Resolution	Promo	Calibration
0-6"/0-150mm	<b>500-752-20</b>	.0005"/0.01mm	\$ <b>238.45</b>	\$ 39.00
0-8"/0-200mm	<b>500-753-20</b>	.0005"/0.01mm	\$ <b>321.10</b>	\$ 51.00

### Dial Calipers

- > Ultra-smooth movement and high shock protection
- > Lock screw for dial bezel and for holding the sliding jaw position
- > Measures OD, ID, depth and steps
- > Range/Rev. .2"



Range	Order No.	Graduation	Promo	Calibration
0-6"	<b>505-740</b>	.001"	\$ <b>130.15</b>	\$ 39.00
0-8"	<b>505-741</b>	.001"	\$ <b>182.16</b>	\$ 51.00

### ABSOLUTE Digimatic Caliper with Nib Style Jaws

- > Rounded faces of the jaws are ideal for accurate ID (inside diameter) measurement
- > SPC output
- > ABSOLUTE encoder technology



Range	Order No.	Resolution	Promo	Calibration
0 (.5) - 24" 0 (20) - 600mm	<b>550-225-10</b>	.0005"/0.01mm	\$ <b>1,181.28</b>	\$ 114.00

#### Optional Accessories

<b>959149</b>	SPC Cable 40"/1m	\$61.50
<b>959150</b>	SPC Cable 80"/2m	\$69.00
<b>02AZD790C</b>	U-WAVE Cable	refer to page 2

### Coolant Proof Calipers - IP67

- > Can be used in workshop conditions exposed to coolant, water, dust or oil
- > Easy to use - no need to wipe or clean the scale
- > ABSOLUTE measuring technology
- > Auto power ON/OFF



COOLANT PROOF™ IP67  
ABSOLUTE™



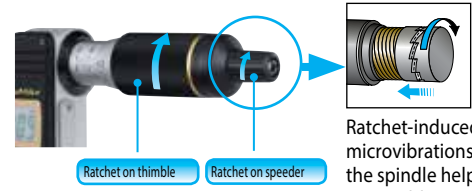
Range	Order No.	Resolution	Promo	Calibration
0-12"/0-300mm	<b>500-754-10</b>	.0005"/0.01mm	\$ <b>453.15</b>	\$ 64.00

Range	Order No.	Resolution	Promo	Calibration
0-6"/0-150mm	<b>500-731-20<sup>1</sup></b>	.0005"/0.01mm	\$ <b>280.60</b>	\$ 39.00
0-8"/0-200mm	<b>500-734-20<sup>2</sup></b>	.0005"/0.01mm	\$ <b>486.68</b>	\$ 51.00

Remarks: <sup>1</sup> Carbide jaws for OD measurement <sup>2</sup> Carbide jaws for OD/ID measurement

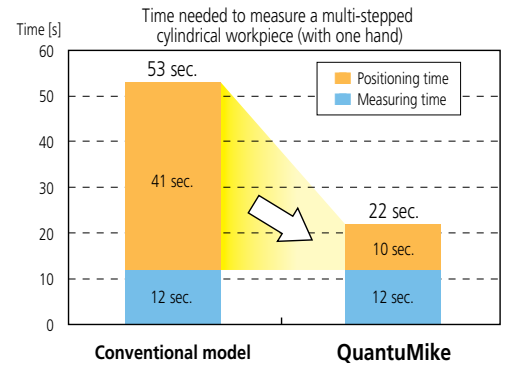
## QuantuMike Micrometers

- > Measures 4x faster with 2mm per revolution instead of standard 0.5mm
- > With SPC output
- > Patented ratchet thimble mechanism helps ensure repeatability



Ratchet-induced microvibrations along the spindle help ensure repeatable measurements.

### Significant reduction in positioning time



Range	Order No.	Resolution	Promo	Calibration
0-1"/0-25.4mm	<b>293-180-30</b>	.00005"/0.001mm	<b>\$ 307.28</b>	\$39.00
0-1"/0-25.4mm	<b>293-185-30*</b>	.00005"/0.001mm	<b>\$ 257.45</b>	+ \$25.00 per micrometer standard
1-2"/25.4-50.8mm	<b>293-186-30*</b>	.00005"/0.001mm	<b>\$ 290.72</b>	

Remarks: \*No SPC output

### Optional Accessories

- 05CZA662** SPC Cable 40"/1m \$100.00
- 05CZA663** SPC Cable 80"/2m \$147.80
- 02AZD790B** U-WAVE Cable Refer to page 2

## Coolant Proof Micrometers

- > IP65 Protection level for use in harsh shop environments
- > Non-slip surface for stable hand-held use
- > With a standard bar (except 0-1"/0-25.4mm models)



Range	Order No.	Remarks	Resolution	Promo	Calibration
0-1"/0-25.4mm	<b>293-344-30</b>	Ratchet thimble	.00005"/0.001mm	<b>\$ 204.25</b>	\$39.00 + \$25.00 per micrometer standard
0-1"/0-25.4mm	<b>293-349-30</b>	Ratchet thimble	.0001"/0.001mm	<b>\$ 197.80</b>	
1-2"/25.4-50.8mm	<b>293-345-30</b>	Ratchet thimble	.00005"/0.001mm	<b>\$ 276.45</b>	
1-2"/25.4-50.8mm	<b>293-331-30*</b>	Ratchet stop	.00005"/0.001mm	<b>\$ 311.88</b>	
2-3"/50.8-76.2mm	<b>293-346-30</b>	Ratchet thimble	.00005"/0.001mm	<b>\$ 351.44</b>	
3-4"/76.2-101.6mm	<b>293-343-30</b>	Ratchet stop	.00005"/0.001mm	<b>\$ 370.76</b>	

Remarks: \*SPC output

### Optional Accessories

- 05CZA662** SPC Cable 40"/1m \$100.00
- 05CZA663** SPC Cable 80"/2m \$147.80
- 02AZD790B** U-WAVE Cable Refer to page 2

## MICROMETER STAND

- > Adjustable angle type
- > For use with micrometer ranges up to 4"/100mm

Order No. 156-101-10  
**PROMO \$95.95**



## Inside Micrometer

- > Wide range of ID measurements with interchangeable rods
- > Each rod is marked with its measuring size
- > Sizes of interchangeable rods can be adjusted with spacing collars



Range	Order No.	Graduation	Mic. Travel	Promo	Calibration
2-12"	<b>141-233</b>	.001"	.5"	<b>\$ 241.30</b>	\$ 114.00

## Sign up for News & Special Offers from Mitutoyo

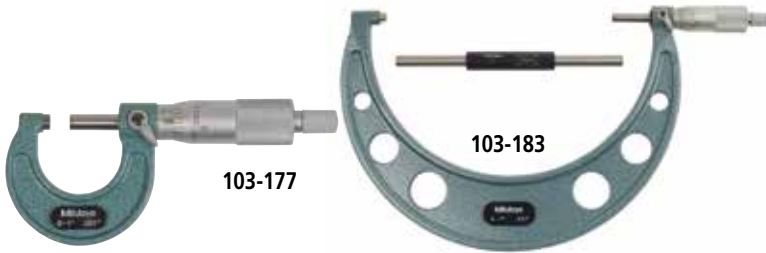
- > Receive our quarterly National Flyers
- > Keep on top of new products and measurement technologies
- > Special offers and, product promotions and events
- > Unsubscribe at any time
- > Register on-line at [www.mitutoyo.com](http://www.mitutoyo.com)



Register for Special Mitutoyo offers here

## Outside Micrometers

- > Ratchet stop
- > With a standard bar (except 0-1" model)

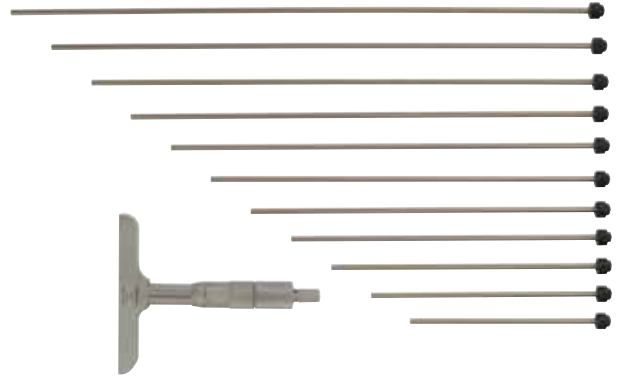


Range	Order No.	Graduation	Promo	Calibration
0-25mm	<b>103-137</b>	0.01mm	\$ 110.20	\$ 39.00
0-1"	<b>103-177</b>	.001"	\$ 95.95	\$ 39.00
1-2"	<b>103-178</b>	.001"	\$ 110.20	\$ 39.00*
2-3"	<b>103-179</b>	.001"	\$ 136.80	\$ 39.00*
3-4"	<b>103-180</b>	.001"	\$ 149.04	\$ 39.00*
4-5"	<b>103-181</b>	.001"	\$ 159.16	\$ 39.00*
5-6"	<b>103-182</b>	.001"	\$ 171.12	\$ 39.00*
6-7"	<b>103-183</b>	.001"	\$ 202.40	\$ 39.00*
12-13"	<b>103-189</b>	.001"	\$ 404.80	\$ 64.00*
13-14"	<b>103-190</b>	.001"	\$ 418.60	\$ 76.00*

\*Add cost of micrometer standard calibration 1" - 12": \$25.00 / 13" - 16": \$39.00

## Depth Micrometers

- > The rod length can be adjusted in 1"/25mm increments
- > Ø4mm interchangeable rods (12 pcs.) with lapped measuring end provide a wide measuring range
- > Ratchet stop
- > Measuring rod clamp
- > Graduation .001"



Range	Order No.	Base	Rods	Promo	Calibration
0-4"	<b>129-127</b>	2.5 x .63"	4	\$ 193.20	\$ 114.00
0-6"	<b>129-128</b>	2.5 x .63"	6	\$ 253.65	\$ 152.00
0-12"	<b>129-150</b>	4 x .63"	12	\$ 423.70	\$ 266.00

## Outside Micrometers

- > Hammertone, baked-enamel finished frame
- > With a standard bar for each micrometer (except 0-1" model)
- > Supplied with case



Range	Order No.	No. of Mic's	Graduation	Promo	Calibration
0-3"	<b>103-922</b>	3	.0001"	\$ 402.04	\$ 166.00
0-6"	<b>103-904-10</b>	6	.001"	\$ 1,102.16	\$ 358.00
6-12"	<b>103-909</b>	6	.0001"	\$ 1,932.00	\$ 482.00

## Dial Depth Gauge

- > Wide probing range is available with the supplied extension rods
- > Bottom surface of base is hardened, ground and lapped to highest degree of flatness
- > 4 extension rods
- > Base 4 x .63"
- > Stroke: 1"



Range	Order No.	Graduation	Promo	Calibration
0-8"	<b>72185</b>	.001"	\$ 321.10	\$ 64.00

## ABSOLUTE Digimatic ID-S Indicator

- > ABSOLUTE linear encoder always displays the spindle position
- > Unlimited response speed
- > SPC Data output, Lug back

Range	Order No.	Resolution	Remarks	Promo	Calibration
.5"/12.7mm	<b>543-792</b>	.00005"/0.001mm	ANSI/AGD type, 3/8" stem dia.	\$ 303.60	\$ 39.00
.5"/12.7mm	<b>543-791</b>	.00005"/0.001mm	ISO type, 8mm stem dia.	\$ 310.96	\$ 39.00

### Optional Accessories

<b>905338</b>	SPC Cable 40"/1m	\$46.30
<b>905409</b>	SPC Cable 80"/2m	\$51.00
<b>02AZD790F</b>	U-WAVE Cable	See page 2

ABSOLUTE™  
SPC



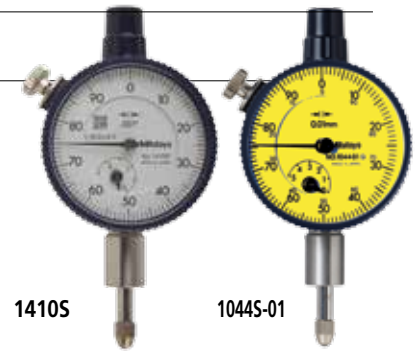
543-792

## Series 1 Dial Indicators

- > Hard coated crystal for durability and scratch resistance
- > Many optional contact points and back accessories available
- > Lug back, ANSI/AGD 3/8"

Range	Range/Rev	Order No.	Graduation	Dial	Promo	Calibration
5mm	1mm	<b>10445-01*</b>	0.01mm	0-100	\$ 111.32	\$ 39.00
.25"	.1"	<b>1410S</b>	.001"	0-100	\$ 114.00	\$ 39.00

Remarks: \*Yellow dial face



1410S

10445-01

## Series 2 Dial Indicators

- > Hard coated crystal for durability and scratch resistance
- > Many optional contact points and back accessories available
- > Lug back

Range	Range/Rev	Order No.	Graduation	Dial	Promo	Calibration
.50"	.01"	<b>2358S-10<sup>2,3</sup></b>	.0001"	0-10	\$ 242.88	\$ 39.00
1mm	0.2mm	<b>2109S-10<sup>1,2,4</sup></b>	0.001mm	0-100-0	\$ 193.20	\$ 39.00

Remarks: <sup>1</sup>Anti-shock <sup>2</sup>Jeweled bearings <sup>3</sup>ANSI/AGD 3/8" dia. stem <sup>4</sup>ISO/JIS 8mm dia. stem



2923S-10

2109S-10

## ABSOLUTE Digimatic Indicator ID-N

- > Slim body design (35mm wide, 25mm thick) is advantageous for multi-point measurements, Stem dia. 3/8"
- > LCD readout rotation function
- > Built-in hold/reset function

Range	Order No.	Resolution	Promo	Calibration
.5"/12.7mm	<b>543-571</b>	.0005"/0.01mm	\$ 398.36	\$ 39.00



IP66  
ABSOLUTE™  
SPC



## Dial Test Indicators

- > One-piece bezel and crystal face design with O-ring is water and dust resistant
- > Anti-magnetic, with jeweled bearings
- > With Basic or Full set of accessories

Range	Order No.	Graduation	Dial	Remarks	Promo	Calibration
0.2mm	<b>513-405-10E</b>	0.002mm	0-100-0	Basic set	\$ 160.55	\$ 39.00
0.2mm	<b>513-405-10T</b>	0.002mm	0-100-0	Full set	\$ 210.68	\$ 39.00



513-405-10E

### Magnetic Indicator Bases

- > Mitutoyo magnetic stands accept all dial indicators and test indicators
- > On/Off switch offers instant mounting and dismantling without any adverse effect to the indicators or workpiece surface

Order No.	Remarks	Promo
<b>7010S-10</b>	Magnetic Stand - applicable holding stem dia. Ø6mm, Ø8mm*, Ø9.53mm (3/8") *supplied with collar	\$ 103.55
<b>7032B</b>	Universal Magnetic Stand - with dovetail groove and mechanical locking system, 13.58" overall height fully extended including base	\$ 215.28



7010S-10

7032B

### Centre Finders

- > Hardened and ground on all surfaces



Shank Dia.	Tip Dia.	Order No.	Promo
3/8" (.375")	.20"	<b>050103</b>	\$ 30.40
1/2" (.50")	.20"	<b>050104</b>	\$ 23.75

## OTHER GAUGES

### Telescoping Gauges

- > Spring-loaded plunger expands within the bore (or groove) allowing determination of the internal diameter



155-903

Range	Order No.	Remarks	Promo
.313 - .5"	<b>155-121</b>	Individual gauge	\$ 30.36
.5 - .75"	<b>155-122</b>	Individual gauge	\$ 34.96
.75 - 1.25"	<b>155-123</b>	Individual gauge	\$ 36.80
1.25 - 2.125"	<b>155-124</b>	Individual gauge	\$ 38.64
2.125 - 3.5"	<b>155-125</b>	Individual gauge	\$ 44.16
3.5 - 6"	<b>155-126</b>	Individual gauge	\$ 50.60
.313 - 6"	<b>155-903</b>	6 gauge set	\$ 235.60
.50 - 6"	<b>155-904</b>	5 gauge set	\$ 199.64
8 - 150mm	<b>155-905</b>	6 gauge set	\$ 218.04
315 - 2.125"	<b>155-907</b>	4 gauge set	\$ 133.40

### Small Hole Gauge Set

- > 4 pc. set
- > Extra long for gauging deep and shallow holes or slots



Total Range	Gauges incl.	Order No.	Promo
.125 - .5"	.125 - .2" Dia. .2 - .3" Dia. .3 - .4" Dia. .4 - .5" Dia.	<b>154-901</b>	\$ 120.65

### Steel Rules

- > Clear graduations on satin chrome finish. Stainless tempered
- > Wide rigid rules - thickness 3/64"



Range	Order No.	Graduations	Width	Promo
6" (4R)	<b>182-101</b>	1/8, 1/16, 1/32, 1/64"	3/4"	\$ 17.10
6" (5R)	<b>182-103</b>	1/32, 1/64, 1/10, 1/100th	3/4"	\$ 16.56
6"x150mm	<b>182-105</b>	1/32, 1/64, 1mm, 0.5mm	3/4"	\$ 17.10
6"x150mm	<b>182-107</b>	1/10, 1/100, 1mm, 0.5mm	3/4"	\$ 16.56
150mm	<b>182-111</b>	1, 0.5, 1, 0.5mm	19mm	\$ 17.10
12" (4R)	<b>182-121</b>	1/8, 1/16, 1/32, 1/64"	1"	\$ 36.10
12" x 300mm	<b>182-125</b>	1/32, 1/64, 1mm, 0.5mm	1"	\$ 36.10
12" x 300mm	<b>182-126</b>	1/50, 1/100, 1mm, 0.5mm	1"	\$ 43.24
300mm	<b>182-131</b>	1, 0.5, 1, 0.5mm	25mm	\$ 34.96

## Digimatic Height Gauges with SPC output

- > Carbide tipped scriber
- > Switchable resolution
- > Coarse/fine feed switching
- > SPC data output



Range	Order No.	Resolution	Promo	Calibration
0-18"/0-450mm	<b>192-631-10</b>	Switchable	\$ <b>2,329.44</b>	\$140.00
0-24"/0-600mm	<b>192-632-10</b>	Switchable	\$ <b>2,381.88</b>	\$216.00

### Optional Accessories

<b>905338</b>	SPC Cable 40"/1m	\$46.30
<b>905409</b>	SPC Cable 80"/2m	\$51.00
<b>06AZD790F</b>	U-WAVE Cable	See page 2

## Centre Gauge

- > Hardened with lapped edges and notches
- > Meets requirements of the American National and US 60° Standards
- > Scales with 14ths and 20th graduations provided on one side, 24ths and 32nds on reverse side



Description	Order No.	Promo
Centre gauge	<b>950-201</b>	\$ <b>18.05</b>

## REFERENCE GAUGES

### Thickness Gauges

- > Each leaf is marked with its thickness
- > Each leaf is detachable
- > Straight or tapered blade



950-251

Range	Leaves	Blade	Order No.	Promo
.002-.035"	26	Straight 1/2" width	<b>950-251</b>	\$ <b>32.30</b>
.0015 - .025"	26	Tapered 1/4" width at tip	<b>950-252</b>	\$ <b>33.25</b>

### Pitch Gauge

- > Thread pitch size is stamped on each gauge
- > Unified Screw pitch (60°)



Range	Leaves	Order No.	Promo
4-84 TPI	51	<b>950-253</b>	\$ <b>48.76</b>

## CERTIFIED CALIBRATION

### Mitutoyo Calibration Laboratory (Mississauga)

- > This state-of-the-art centre, located in Mississauga, provides a large scope of calibration services on a comprehensive range of measuring equipment.
- > The Mitutoyo Calibration Laboratory is certified by the Standards Council of Canada as part of the Canadian Laboratory Assessment Services (CLAS) program in accordance with ISO/IEC 17025. Certificate Number 2003-05, Accredited Laboratory No. 503.
- > Visit the following link for more information  
<http://www.mitutoyo.ca/metrology-services.html>



## REPAIR SERVICES

### Mitutoyo Repair Shop (Mississauga)

- > As a Mitutoyo tool user, you already know that you have purchased a premium quality product. We do not sell "disposable" instruments.
- > On occasion, there may be a need for repair services and we can be a tremendous benefit to help prolong the life of your Mitutoyo measuring tools. With proper maintenance and care, they can last your lifetime!
- > We have a generous inventory of parts and offer quick turn-around times.





# BUILD YOUR OWN DIGITAL READOUT PACKAGE

## SAVE 5% ON COUNTER & SCALES (WITH MINIMUM PURCHASE)

### MINIMUM PURCHASE:

- > One AT715 Linear Scale (see list below)
- > KA-200 Counter (2 or 3 axis)

Code	Description	Without minimum purchase	Promo (with minimum purchase)
<b>174-183A</b>	KA-200 Counter (2-axis)	\$734.00	<b>\$697.30</b>
<b>174-185A</b>	KA-200 Counter (3-axis)	\$1,080.00	<b>\$1,026.00</b>
<b>Your choice</b>	1 pc. Linear Scale (see table below)	<b>See table for pricing</b>	



### AT715 ABSOLUTE Coolant Proof Linear Scales

Order No.	Effective range	Without minimum purchase	Promo (with minimum purchase)
539-801	4" / 100mm	\$ 370.00	<b>\$ 351.50</b>
539-802	6" / 150mm	\$ 370.00	<b>\$ 351.50</b>
539-803	8" / 200mm	\$ 374.00	<b>\$ 355.30</b>
539-804	10" / 250mm	\$ 374.00	<b>\$ 355.30</b>
539-805	12" / 300mm	\$ 374.00	<b>\$ 355.30</b>
539-806	14" / 350mm	\$ 378.00	<b>\$ 359.10</b>
539-807	16" / 400mm	\$ 383.00	<b>\$ 363.85</b>
539-808	18" / 450mm	\$ 390.00	<b>\$ 370.50</b>
539-809	20" / 500mm	\$ 394.00	<b>\$ 374.30</b>
539-811	24" / 600mm	\$ 401.00	<b>\$ 380.95</b>
539-813	28" / 700mm	\$ 409.00	<b>\$ 388.55</b>
539-814	30" / 750mm	\$ 415.00	<b>\$ 394.25</b>
539-815	32" / 800mm	\$ 418.00	<b>\$ 397.10</b>
539-816	36" / 900mm	\$ 456.00	<b>\$ 433.20</b>
539-817	40" / 1000mm	\$ 474.00	<b>\$ 450.30</b>
539-818	44" / 1100mm	\$ 538.00	<b>\$ 511.10</b>
539-819	48" / 1200mm	\$ 603.00	<b>\$ 572.85</b>
539-820	52" / 1300mm	\$ 669.00	<b>\$ 635.55</b>
539-821	56" / 1400mm	\$ 731.00	<b>\$ 694.45</b>
539-822	60" / 1500mm	\$ 811.00	<b>\$ 770.45</b>
539-823	64" / 1600mm	\$ 909.00	<b>\$ 863.55</b>
539-824	68" / 1700mm	\$ 1,004.00	<b>\$ 953.80</b>
539-825	72" / 1800mm	\$ 1,100.00	<b>\$ 1,045.00</b>
539-860	80" / 2000mm	\$ 1,675.00	<b>\$ 1,591.25</b>
539-861	88" / 2200mm	\$ 1,788.00	<b>\$ 1,698.60</b>
539-862	96" / 2400mm	\$ 2,150.00	<b>\$ 2,042.50</b>
539-863	100" / 2500mm	\$ 2,200.00	<b>\$ 2,090.00</b>
539-864	104" / 2600mm	\$ 2,250.00	<b>\$ 2,137.50</b>
539-865	112" / 2800mm	\$ 2,400.00	<b>\$ 2,280.00</b>
539-866	120" / 3000mm	\$ 2,675.00	<b>\$ 2,541.25</b>

### KA-200 Display Counter

- > Many features making it an excellent addition to manual machine retrofit packages
- > Many high end functions packed into this standard counter
- > Large LED display is sharp and bright. Easy to see at a distance
- > The positive touch front panel keys are solid and easy to push with fast response
- > The sub display lets you know what function you are currently using

### AT715 ABSOLUTE Coolant Proof Linear Scales

- > ABSOLUTE encoder eliminates the need for origin restoration, and drastically reduces power consumption
- > IP67 coolant-proof protection
- > 5 Year Warranty!



### Brackets

Type	Code	Description	Price
Milling Systems	<b>64AAB196</b>	Universal bracket kit (12")	\$267.00
	<b>64AAB197</b>	Universal bracket kit (14-16")	\$275.00
	<b>64AAB199</b>	Screw kit	\$58.00
Lathes	<b>64AAB191</b>	Bracket Kit	\$324.00
Grinders	<b>64AAB194</b>	Scale Y Axis	\$451.00
All Systems	<b>64AAB200</b>	Machine Arm Kit (KA Counter)	\$226.00



We're so confident in the exceptional performance of our AT-715 Series Coolant Proof Linear Scales that we offer a full 5 Year Warranty!

## TM-505B/TM-1005B

### Toolmakers' Microscope

The Mitutoyo TM Series is a toolmakers' microscope well suited for measuring dimensions and angles of machined metals. It also can be used to check the shape of screws and gears by attaching an optional reticle. The compact body makes it ideal for use on shop floors with limited space.

### Features

- > Angle measurement is performed easily by turning the angle scale disc to align the cross-hair reticle with the workpiece image.
- > Newly designed LED illuminators provide enhanced observation for higher accuracy and resolution.
- > Included standard accessories create an overall magnification of 30X. Magnifications can be changed from 20 - 200X by using optional objectives and/or eyepieces.

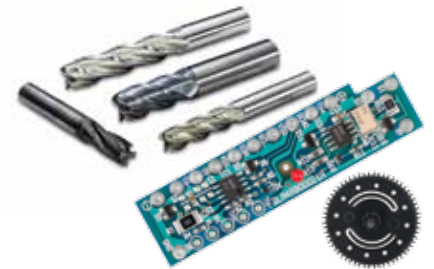


### Digimatic Micrometer Heads

- > The display can be rotated up to 330° for easy reading in any position
- > Non-rotating spindle imparts no torque on the workpiece
- > Range: 0-2"/0-50.8mm
- > Graduation: .00005"/0.001mm



Order No.	Price	Calibration
164-164	\$ 1,103.00	\$ 76.00



Model No.	TM-A505B	TM-505B	TM-A1005B	TM-1005B
Order No.	176-820A	176-818A	176-821A	176-819A
Objective lens	Standard accessory: 2X, Options: 5X, 10X			
Microscope head	Maximum height of workpiece 4.53" / 115mm		4.21" / 107mm	
Illumination unit	Transmitted illumination Stepless brightness adjustment, White LED light source, With green filter			
	Surface illumination Oblique single-source type, Stepless brightness adjustment, White LED light source			
Cross-travel stage	Measuring range 2" x 2" / 50x50mm		4" x 2" / 100x50mm (An optional 2"/50mm gauge block is required to cover full range. A CERA block is recommended.)	
	Table size 6" x 6" / 152x152mm		9.44" x 6" / 240x152mm	
	Usable area of the stage glass 3.8" x 3.8" / 96x96mm		6" x 3.8" / 152x96mm	
Linear measurement method	Micrometer heads included	Micrometer heads optional	Micrometer heads included	Micrometer heads optional
Resolution	.00005"/1µm		NA	
Micrometer head travel range	2"/50mm		NA	
<b>SAVE 15%</b>	<b>\$5,939.80</b>	<b>\$4,027.30</b>	<b>\$7,746.05</b>	<b>\$5,833.55</b>
Reg. List Price	\$6,988.00	\$4,738.00	\$9,113.00	\$6,863.00

### Optional Imaging Accessory

**MOTICAM 1080** mounts on microscope eyepiece and supplies a digital image to your PC or MAC (USB), a live image to your video monitor (HDMI), or a downloadable image to your computer (SD Card). Both types of images can be transmitted simultaneously if desired. Supplied software, Motic Images 2.0, permits manipulation, labeling, measuring, printing, storing, and e-mailing of images.

Order No.	Description	Price
64AAB526	MOTICAM 1080, 2.0 MEGAPIXEL-1/2.8" CMOS, USB/HDMI	\$1,700.00
64PMI237	MOTICAM Eyetube adaptor (this is required with MOTICAM)	\$123.00



# HM-210/HM-220

## Micro Vickers Hardness Testing Machines

- > Equipped both with the latest optical system and ideal for measuring the dimensions of indentation images and a test force loading device that lets you freely set the desired test force.
- > The HM-200 Series is ideal for quality control and mechanical characteristic evaluation using Vickers hardness testing of small areas.
- > Ideal for micro-level quality control and mechanical property evaluations covering thin coating or plating layers, the small surfaces of IC bonding pads, crystal grains within metallic structures, and cross-sectional hardenability evaluation after heat treatment.

### Model HR-210

High spec digital model with arbitrary test force setting, auto turret and colour LCD touch-screen control unit  
Test force range: 98.07-9807mN

**FROM \$17,495 USD**

### Model HR-220

High spec digital model with arbitrary test force setting, auto turret and colour LCD touch-screen control unit  
Test force range: 0.4903-19610mN

**FROM \$19,527 USD**

## System A

HM-210A/HM-220A

All-in-one model with simple touch-panel operation

### FEATURES

- > Touch-panel operation
- > Measurement of indentation dimensions using a measuring microscope
- > Positioning using a manual XY stage



## System C

HM-210C/HM-220C

Improves work efficiency for multi-point testing

### FEATURES

- > Operated using AVPAK
- > Automatic indentation reading
- > Automatic positioning with motorized XY stage



## System B

HM-210B/HM-220B

Automatic dimensions by AVPAK-20 eliminates indentation measurement errors

### FEATURES

- > Operated using AVPAK
- > Automatic measurement of indentations
- > Positioning using a manual XY stage



## System D

HM-210D/HM-220D

Top-end model with autofocus

### FEATURES

- > Operated using AVPAK
- > Automatic indentation reading
- > Automatic positioning with motorized XY stage
- > Autofocusing



Contact your authorized distributor or Mitutoyo sales representative to request more information, product demonstration or detailed quote

Functions	System A	System B	System C	System D
Focusing	Manual	Manual	Manual	Auto
Test action	Single point	Single point	Programmed multi-point	Programmed multi-point
Test-point positioning	Manual XY stage	Manual XY stage	Motorized XY stage	Motorized XY stage
Measuring indentations	Measuring microscope	Automatic (AVPAK)	Automatic (AVPAK)	Automatic (AVPAK)
Camera (observing and measuring indentations)	Monochrome	Colour	Colour	Colour
Operating main unit	Touch panel	PC (AVPAK)	PC (AVPAK)	PC (AVPAK)

**NEW****QUICK IMAGE 2D VISION MEASURING SYSTEM**

Now available with motorized XY stage

Mitutoyo's newest 2-D measuring machine:

**QUICK IMAGE**

Simple to operate and easy-to-perform measuring

Reliability

Usability

Efficiency

Outstanding improvement in operational efficiency and productivity

Powerful backup for your quality control system

**ONE CLICK MEASUREMENT FUNCTION • BATCH MEASUREMENTS • AUTO STITCHING FUNCTION****QUICK IMAGE QI-C SERIES**

- ▶ Featuring a wide field of view (32 x 24mm) and generous depth of focus (up to  $\pm 11$ mm), with fully motorized XY stage and the latest QI Pak software, providing automated measurements throughout the range of stage travel.
- ▶ The telecentric optical system, combined with image stitching capability of QI Pak V5.3 allows fully automated wide-area measurements.

- ▶ The Mitutoyo QI-C Series is available with 0.2x magnification, measuring range options of 200 x 100mm, 200 x 170mm and 300 x 170mm, and a measuring accuracy of  $(3.5 + 0.2L) \mu\text{m}$

**FROM \$37,686<sup>USD</sup>**

Contact your authorized distributor or Mitutoyo sales representative to request more information, product demonstration or detailed quote