





# FALL PROMO 2019

PRECISION TOOLS & INSTRUMENTS

Effective September 23 through December 13, 2019



# QM Height Gages



#### **Dear Valued Customers,**

I want to take a moment to express my sincere appreciation for your continued support and commitment to Mitutoyo products and services.

Inside the pages of the 2019 fall promotion, you will find a lot of great deals on a variety of Mitutoyo tools and instruments including data management solutions, calipers, micrometers, linear encoders, indicators, height gages, microscopes, hardness testers and profile projectors. Prices are effective September 23 through December 13, 2019.

You can find all of the latest promotions, products and events on our website, www.mitutovo.com.

Thank you for trusting us with your metrology needs.

Sincerely.

Matthew B. Syc

Matt Dye

President, Mitutoyo America Corporation

# **High-Performance Height Gage QM-Height Series**

- High-accuracy / high-resolution ABSOLUTE linear encoder for position detection
- > High-accuracy:  $\pm (2.4 + 2.1 L / 600) \mu m$
- > Pneumatic flotation system / positioning grip allows for smooth movement along surface plate (select models)
- > Large, stationary display panel with user-friendly icon control keys and go/no-go LED indicator
- > Digital and USB output: Supports Mitutoyo wireless SPC output
- > Fully compatible with existing Mitutoyo Digimatic peripherals (SPC cables, U-Wave wireless transmitters, multiplexers, etc.)
- > Battery life of 1200 hours in continuous use with four AA batteries, an improvement from 300 hours.

Go/±NG judgment by LED (red, orange, green) and measurement examples

> LEDs are activated at the time of tolerance judgment: green for Go, red for +NG, and orange for -NG. -NG, GO and +NG also appear on the LCD.









64PKA130B 518-247

MeasurLink® ENABLED

Data Management Software by Mitutoyo

Order No.	Range	Resolution	Remarks	List	Promo
64PKA094B	0 - 14"/ 0 - 350mm			\$3,990.00	\$3,591.00
64PKA095B	0 - 24"/ 0 - 600mm	0.001mm / 0.0005mm		\$4,490.00	\$4,041.00
64PKA129B	0 - 14"/ 0 - 350mm	/.00005" / .0001"	Pneumatic Flotation System	\$4,490.00	\$4,041.00
64PKA130B	0 - 24"/ 0 - 600mm			\$4,990.00	\$4,491.00



"d2" is the name for Mitutoyo Digimatic output compatible with up to 8 digits of I/O data.

#### New d2 Digimatic and USB outputs

 Digimatic and USB ports are provided as standard. Using the U-WAVE-T measurement data wireless communication system enables instant transmission of measurement data to a PC via wireless communication which reduces manual input errors and improves data reliability and operational efficiency.



To install **U-WAVE-T**, separately purchase the optional mounting plate (**02AZE990**).



#### 2019 Remaining Tradeshow Schedule:

WESTEC - Sep 24, 2019 - Long Beach, CA - Booth #1209 Neuroscience Show - Oct 19, 2019 - Chicago, IL - Booth #531 The Quality Show - Oct 22, 2019 - Rosemont, IL - Booth #1308





# **U-Wave Wireless Data Transmitters**

# **U-WAVE** fit

**MeasurLink** ENABLED Data Management Software by Mituto



Mitutoyo's new U-Wave Fit wireless data transmitter fits to the back of popular Mitutoyo hand-held measuring instruments. This new design allows for a snug fit behind the display resulting in a more ergonomic feel. U-Wave Fit is the same technology as the U-Wave T, just a smaller version.







U-WAVE-TM for micrometers and U-WAVE-TC for calipers are available, both as the buzzer type and water/dust-proof IP67 type. The buzzer type notifies the normal reception of data by LED and buzzer sound. The water/dust-proof IP67 type is designed for a harsh environment and as such is only equipped with LED notification of data reception.

#### **U-WAVE-T (Transmitter)**

Order No.	Model	Measuring Instrument*	Remarks	List	Promo
264-620	U-WAVE-TC	4", 6", 8", 12" IP67 caliper/standard caliper	IP67/LED	\$190.00	\$171.00
264-621	U-WAVE-TC	4", 6", 8", 12" IP67 caliper/standard caliper	Buzzer/LED	\$190.00	\$171.00
264-622	U-WAVE-TM	COOLANT-PROOF (IP65) micrometer	IP67/LED	\$190.00	\$171.00
264-623	U-WAVE-TM	COOLANT-PROOF (IP65) micrometer	Buzzer/LED	\$190.00	\$171.00
02AZF310	Connection unit	IP67 caliper/COOLANT-PROOF (IP65) micrometer	Waterproof	\$70.00	\$63.00
02AZF300	Connection unit	Standard caliper	Standard	\$70.00	\$63.00

<sup>\*</sup> Please contact Mitutoyo or distributor for further details

#### U-WAVE-R (Receiver)

Order No.	Remarks	Software	Number of U-WAVE-R units that can be connected to PC	Number of U-WAVE-T units that can be connected	List	Promo
02AZD810D	U-WAVE-R + software	U-WAVE PAK	Up to 15	Up to 100	\$499.00	\$449.10

- The transmitter is designed to fit in the space behind the display, and the connecting cable has been replaced by a rigid connector
- Approx. 20 m transmission range (within visible range)
- 2.4GHz wireless system for reliable and secure data transmission
- Easy data export to Microsoft® Excel® or SPC software applications
- Transmitter confirms data transfer by an LED signal and optional buzzer
- An IP67 transmitter is available to ensure a coolant-proof gaging system
- Low power consumption: 400,000 data transmissions with a single battery

#### **Standard U-Wave Wireless System**

U-WAVE is a wireless system that connects to a gage with SPC output. The data is sent to a receiver that is connected to a PC through a USB connection.

- > 2.4 GHz ZigBee wireless with a 60ft range.
- > HID compatible (Keyboard Entry) and Serial (VCP).
- > Supports Mitutoyo Digimatic or Digimatic 2 Type A, B, C, D, E, F, G.
- > Includes U-WAVEPAK Setup Software.









02AZD810D

#### **MeasurLink**® ENABLED Data Management Software by Mituto

Order No.	Decription	List	Promo
02AZD730G	U-WAVE-T/IP67 TYPE	\$220.00	\$198.00
02AZD880G	U-WAVE-T/BUZZER TYPE	\$220.00	\$198.00
02AZD810D	U-WAVE-R	\$499.00	\$449.10
02AZD790A	U-WAVE CONNECTING CABLE A	\$110.00	\$99.00
02AZD790B	U-WAVE CONNECTING CABLE B	\$110.00	\$99.00
02AZD790C	U-WAVE CONNECTING CABLE C	\$110.00	\$99.00
02AZD790D	U-WAVE CONNECTING CABLE D	\$110.00	\$99.00
02AZD790E	U-WAVE CONNECTING CABLE E	\$110.00	\$99.00
02AZD790F	U-WAVE CONNECTING CABLE F	\$110.00	\$99.00
02AZD790G	U-WAVE CONNECTING CABLE G	\$110.00	\$99.00

Data Collection – Store. Send. Print.

#### **DP-1VA LOGGER**

The DP-1VA collects data from a Digimatic gage which can be stored, exported to software or printed.

#### **Data Logger:**

- Data can be stored internally, printed and/or sent to a PC as it is measured or after all data has been collected.
- Up to 1,000 measurements can be stored.

#### Timer:

- Data collection can be triggered by a timer function.
- The DP-1VA can collect data unattended to measure changes over time.

#### **Tolerance and SPC:**

- Tolerances can be set in the unit, and statistics can be calculated and printed directly from the DP-1VA.
- No additional software is required.

#### **Features:**

- d2 compatible
- A gage with SPC output is connected to the DP-1VA with an SPC cable.
- The data for each part measured is printed, saved or sent directly to a PC through a USB cable.
- This data can be triggered by the button on the gage, cable or the DP-1VA. An optional footswitch can also be used.

Order No.	Model	List	Promo
264-505A	DP-1VA	\$514.00	\$488.30





Digimatic 2 function allows the high resolution of the gage to be output in its entirety in metric or inch.

USB connection allows collected data

to be easily transferred from the DP-

1VA to the PC. The output is HID or VCP so data can be sent directly to

as IT-Pak or MeasurLink®.

Excel® or data collection software such



"d2" is the name for Mitutoyo Digimatic output compatible with up to 8 digits of I/O data.

# Purchase the world's first 5µinch /0.1µm resolution micrometer and receive a USB input tool and cable (\$280 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 be output in its entirety in both inch and metric. Resulting data can be input directly to Excel®, MeasurLink® or other SPC programs.

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

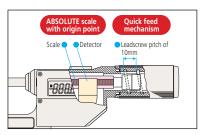
Part #	Description	List Price
PROMO026	Package: MDH Mic, SPC Cable, USB Input Tool	\$1,680.00
293-130-10	MDH Micrometer with high accuracy, high resolution output	\$1,680.00
05CZA662	SPC CONNECTING CABLE (1M)	\$83.80
264-016-10	USB INPUT TOOL	\$197.00



#### **Quickmikes**

The new Quickmike series still boasts the super-fast spindle feed rate that's 20x faster than standard micrometers, Absolute encoder, increased measuring ranges. New features include:

- > IP65 protection can be used around cutting fluids
- > MIN Hold the minimum measurement can be held on the display for more repeatable and accurate measurements
- > Larger LCD 33% larger, 10mm character height
- > Function lock prevents accidental changes
- > 5 year battery life more operating time, less downtime looking for and replacing batteries



#### **ABSOLUTE**

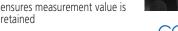
The ABS (ABSOLUTE) linear scale eliminates the need for origin point setting at every power-on and achieves high reliability while being free from overspeed error.



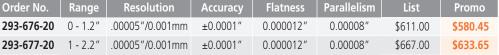




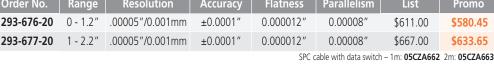












#### **QuantuMike Micrometer**

#### **4X Faster Spindle Travel**

- > Faster measurement with 2mm travel per revolution instead of the standard 0.5mm.
- > A patented ratchet thimble mechanism helps ensure repeatability.
- > Function-lock system prevents inadvertent setting changes.
- ➤ Long battery life 2.4 years under normal operation.
- > Certificate of inspection provided.





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

**fit** U-Wave Fit compatible

#### COOL ANT PROOF

	Order No.	Range	Resolution	List	Promo
fit	293-180-30*	0-1"/0 - 25.4mm	.00005"/0.001mm	\$270.00	\$256.50
	293-185-30	0-1"/0 - 25.4mm	.00005"/0.001mm	\$233.00	\$221.35
	*with SPC Output	CDC	andala suith alata assitala 1 as	05674663	2 OF C7 A C C2

SPC cable with data switch - 1m: 05C7A662 2m: 05C7A663



VIDEO DEMO

#### **Caliper and QuantuMike Tool Kit**

#### **Tool Kit includes:**

OuantuMike 293-185-30 Digimatic Caliper 500-196-30 Mahogany Case 64PPP932



#### \$378.90 Promo \$421.00 List Price

Order No. 64PKA152

# Micrometers

#### **Digimatic Micrometer**

- > New electromagnetic ABSOLUTE sensor Improved resistance to environmental conditions such as dirt, oil and water, which can cause false readings.
- > New ratchet thimble on select models improves one-hand operability.
- > New anti-slip finish for improved grip while taking measurements.
- ➤ Long battery life 2.4 years under normal operation.
- > Fully compatible with existing Mitutoyo Digimatic peripherals (SPC Cables, U-Wave wireless transmitters, DP1-VA, etc.) – SPC output-enabled IP65 models.
- > Function-lock system prevents inadvertent setting changes.
- > Certificate of inspection provided.





#### COOLANT PROOF

#### **MeasurLink**® ENABLED

	Order No.	Range	Resolution	Remarks	List	Promo		
<b>fit</b>	293-330-30*	0-1"/0-25.4mm	.00005"/0.001mm	Ratchet Stop	\$247.00	\$234.65		
	293-340-30	0-1"/0-25.4mm	.00005"/0.001mm	Ratchet Stop	\$193.00	\$183.35		
	293-344-30	0-1"/0-25.4mm	.00005"/0.001mm	Ratchet Thimble	\$193.00	\$183.35		
	293-348-30	0-1"/0-25.4mm	.00005"/0.001mm	Friction Thimble	\$193.00	\$183.35		
	293-349-30	0-1"/0-25.4mm	.0001"/0.001mm	Ratchet Thimble	\$193.00	\$183.35		
<b>fit</b>	293-331-30*	1-2"/25.4-50.8mm	.00005"/0.001mm	Ratchet Stop w/Standard	\$291.00	\$276.45		
	293-341-30	1-2"/25.4-50.8mm	.00005"/0.001mm	Ratchet Stop w/Standard	\$250.00	\$237.50		
	293-345-30	1-2"/25.4-50.8mm	.00005"/0.001mm	Ratchet Thimble w/Standard	\$250.00	\$237.50		
	*with SPC Outpu	ut		SPC cable with data switch – 1m: 05CZA662 2m: 05CZA663				



#### **MDC-Lite Micrometer**

- > Provided only with zero set and in/mm (inch/metric models only) keys.
- > A ratchet stop or friction thimble for a constant measuring force.
- > Measurement readout with large characters on the LCD.
- > No spindle clamp. No data output.

Order No.	Range	Resolution	Remarks	List	Promo
293-831-30	0 - 1" / 0 - 25.4mm	.00005" / 0.001mm	Ratchet Stop	\$155.00	\$147.25
293-832-30	0 - 1" / 0 - 25.4mm	.00005" / 0.001mm	Friction Thimble	\$165.00	\$156.75



#### **Spline Micrometer**

- > The anvil and spindle have a small diameter for measuring splined shafts, slots and keyways.
- >With SPC output

fit U-Wave Fit compatible

> Resolution: .00005 "/0.001mm











	Digital					
	Order No.	Range	Accuracy	Contacts	List	Promo
t	331-351-30	0 1 1 /0 2 5 4 20 20	±.0001"	Ø.118"	\$484.00	\$459.80
t	331-361-30	0 - 1"/0 - 25.4mm	±.0001"	Ø.079"	\$484.00	\$459.80
	fif II-Wave Fit con	nnatihle	SPC cable with	n data switch – 1	m: <b>05C7A662</b>	m: 05C7A663

#### **Spherical Face Micrometer**

- > Designed to measure the wall thickness of various tubing.
- > Resolution: .00005" / 0.001mm
- > With SPC output.
- >With a standard bar except 0 -1"model.







SPC cable with data switch - 1m: 05CZA662 2m: 05CZA663

MeasurLink® ENABLED

Digital model with spherical anvil

	Order No.	Range	Accuracy	Min ID	List	Promo
<b>fit</b>	395-371-30 <sup>S-S</sup>	0 - 1"/0 - 25.4mm	±.0001"	D: .59"	\$422.00	\$400.90
<b>fit</b>	395-372-30 <sup>S-S</sup>	1" - 2"/ 25.4- 50.8mm	±.0001"	D: .59"	\$448.00	\$425.60
<b>fit</b>	395-351-30 <sup>S-F</sup>	0 - 1"/0 - 25.4mm	±.0001"	D: .59"	\$409.00	\$388.55
<b>fit</b>	395-352-30 <sup>S-F</sup>	1" - 2"/25.4- 50.8mm	±.0001"	D: .59"	\$438.00	\$416.10

S-F: Spherical anvil and flat spindle

S-S: Spherical anvil and spherical spindle

**fit** U-Wave Fit compatible

fit fit

# Micrometers / Gage Blocks

#### **Point Micrometer**

- > Pointed spindle and anvil for measuring the web thickness of drills, small grooves, keyways and other hard-to-reach dimensions.
- The measuring points have approximately 0.3mm / .012" radius.
- > With a standard bar except 0 1"
- > Resolution: .00005"/0.001mm (digital models)
- > With SPC output.
- > With carbide tips

Digital









	Order No.	Range	Accuracy	Point	List	Promo
fit	342-351-30	0 - 1"/	±.0001"	15°	\$476.00	\$452.20
fit	342-361-30	0 -25.4mm	±.0001"	30°	\$476.00	\$452.20
fit	342-352-30	1" - 2" /	±.0001"	15°	\$530.00	\$503.50
fit	342-362-30	25.4 - 50.8mm	±.0001"	30°	\$519.00	\$493.05
fit	342-353-30	2" - 3" /	±.0001"	15°	\$553.00	\$525.35
fit	342-363-30	50.8 - 76.2mm	±.0001"	30°	\$553.00	\$525.35
fit	342-354-30	3" - 4" /	±.00015"	15°	\$588.00	\$558.60
fit	342-364-30	76.2 - 101.6mm	±.00015"	30°	\$588.00	\$558.60
	fit U-Wave Fit cor	SPC cable with data switch – 1m: 05CZA662 2m: 05CZA663				

#### Tube Micrometer

> Used to measure the wall thickness on tubing, pipe and other hard-to-reach places. Spherical or cylindrical anvils are available.



> With SPC output.





Type B





	Digital							
	Order No.	Range	Resolution	Accuracy	Туре	List	Promo	
fit	395-362-30		.00005" / 0.001mm	±.00015"	В	\$451.00	\$428.45	
fit	395-363-30	0 - 1" / 0 - 25.4mm			С	\$465.00	\$441.75	
fit	395-364-30				D	\$465.00	\$441.75	
	fff U-Wave Fit compatible		SPC cable with data switch – 1m: 05CZA662 2m: 05CZA				m: <b>05CZA663</b>	

ASME Grade 0 Rectangular Steel .05"

ASME Grade 0 Rectangular Steel 0.1"

ASME Grade 0 Rectangular Steel 0.2"

ASME Grade 0 Rectangular Steel 0.25"

ASME Grade 0 Rectangular Steel 0.5"

ASME Grade 0 Rectangular Steel 1"

ASME Grade 0 Rectangular Steel 2"

ASME Grade 0 Rectangular Steel 3"

Order No.

611105-531

611191-531

611192-531

611212-531

611195-531

611201-531

611202-531

611203-531

#### **Individual Gage Blocks** Keep your gage block set reliable by replacing commonly used sizes

Mitutoyo's specialized lapping technique, developed over half a century, allows us to achieve the best accuracy, flatness and surface roughness.

#### **Steel Gage Blocks**

- > Dimensionally stable over time due to methodically applied, repeated heat treatment
- > High carbon, high chrome steel

# > Easy wringing

#### CERA (Zirconia Ceramic) Gage Blocks\*

- > Extremely high wear resistance, 3x better than carbide.
- > Corrosion proof no oil needed.
- > Closest expansion coefficient to steel.
- > Anti-magnetic keeps away steel dust.
- > High wringing force due to high density.
- > Crack and burr resistant.
- >Low thermal conductivity excellent dimensional stability under brief temperature changes (from handling, etc.).



Order No.	Remarks	List
613105-531	ASME Grade 0 Rectangular CERA .05"	\$53.45
613191-531	ASME Grade 0 Rectangular CERA 0.1"	\$47.05
613192-531	ASME Grade 0 Rectangular CERA 0.2"	\$60.95
613212-531	ASME Grade 0 Rectangular CERA 0.25"	\$71.85
613195-531	ASME Grade 0 Rectangular CERA 0.5"	\$71.85
613201-531	ASME Grade 0 Rectangular CERA 1"	\$133.00
613202-531	ASME Grade 0 Rectangular CERA 2"	\$188.00
613203-531	ASME Grade 0 Rectangular CERA 3"	\$266.00

#### **CERA Caliper Checker**



Order No.	Range	Remarks (length to check)	List	Promo
515-565	0 - 12"	Outside measurement: 1", 2", 4", 6", 8", 10", 12" Inside measurement: 1", 2", 4", 6", 8", 10", 12"	\$4,520.00	\$2,999.00

- > Permanently wrung, high grade CERA gage blocks in a protective metal casing
- > Also stands perpendicular for height gage inspection
- \* Also includes same features as CERA Gage Blocks

Promo

\$38.00

\$24.37

\$24.37

\$29.88

\$36.20

\$43.56

\$59.19

\$65.79

\$50.78

\$44.70

\$57.90

\$68.26

\$68.26 \$126.35

\$178.60

\$252.70

\$40.00

\$25.65

\$25.65

\$31.45

\$38.10

\$45.85

\$62.30

\$69.25

# Calipers / Depth Gage

#### **Coolant-Proof Calipers**

- > Sealed housing is IP-67 rated, meaning it's immune to the coolants, dirt, grit and chips found in many manufacturing environments.
- > Easy to use no need to wipe or clean the scale.
- > .0005"/0.01mm resolution with ±.001" accuracy.
- > Automatic power-on/off.
- > Certificate of inspection provided.



	Order No.	Range	List	Promo
	Non-Output Style			
	500-752-20	0-6"/0-150mm	\$215.00	\$204.25
	500-753-20	0-8"/0-200mm	\$288.00	\$273.60
	500-754-20*	0-12"/0-300mm	\$499.00	\$474.05
	SPC Output Style			
fit	500-762-20	0-6"/0-150mm	\$255.00	\$242.25
fit	500-763-20	0-8"/0-200mm	\$321.00	\$304.95
fit	500-764-20*	0-12"/0-300mm	\$553.00	\$525.35
	* ±.0015" accuracy	T U-Wave Fit compatible S	PC cable – 1m: <b>05CZ</b>	<b>624</b> 2m: <b>05CZA625</b>



#### COOLANT **PROOF™** (P) 67

 ${\tt COOLANTPROOF} is the universal term of Mitutoyo Digimatic$ Small Tool Instruments that are free from measurement error and physical deterioration due to routine exposure to water, cutting oil or coolant. This high performance is achieved by using encoders that are inherently immune to contamination, where exposure is inevitable, combined with comprehensive sealing techniques and extremely oil-resistant materials to guarantee a long working life under normal operating conditions.

#### **Digimatic Carbon Fiber Caliper**



Order No.	Range	Accuracy	Resolution	List	Promo
552-312-10	0(.5")-18"	+/002"	.0005"/0.01mm	\$975.00	\$926.25
552-313-10	0(.5")-24"	+/002"	.0005"/0.01mm	\$1,090.00	\$1,035.50
552-314-10	0(1")-40"	+/002"	.0005"/0.01mm	\$1,950.00	\$1,852.50
552-315-10	0(1")-60"	+/004"	.0005"/0.01mm	\$2,330.00	\$2,213.50
552-316-10	0(1")-80"	+/005"	.0005"/0.01mm	\$3,650.00	\$3,467.50

SPC cable = 1m: 05C7A624 2m: 05C7A625

- > Lightweight Digimatic Calipers that employ CFRP (Carbon Fiber Reinforced Plastics) in the beam and jaws.
- > Highly durable and easy to handle.
- > Direct readout of ID measurements from the LCD. (Offset value can be set easily by pressing the Offset key.)
- > Preset function for setting a desired starting point.
- > With SPC data output.
- > Special models available with ceramic jaws which are suitable for measuring abrasive and magnetic products.
- > Can be used in workshop conditions exposed to coolant, water, dust or oil.
- > Incorporates ABSOLUTE measurement system.
- > Automatic power-on/off.

#### **Tire Tread Depth Gage**

- > Compact depth gage.
- > Enables measurement of depth of tire groove.
- > Battery life: Approx. 5 years under normal use.
- > Allows integration into statistical process control and measurement systems.



SPC cable - 1m: 05CZA624 2m: 05CZA625











Prices effective September 23 through December 13, 2019

# Calipers

#### **Digimatic Calipers**

#### **MeasurLink**® ENABLED Data Management Software by Mituto

- > AOS Electromagnetic inductive sensor improves environmental resistance against dirt, water and oil.
- > A battery life of approximately 3.5 years has been achieved under normal use through the adoption of Mitutoyo's ABSOLUTE scale.
- > The slider configuration features an ergonomic, thumb-friendly shape.
- > Step-measurement capable.
- > The data output function allows integration into statistical process control and measurement systems.
- > Display character height: 9mm
- > AOS applies to 4", 6" and 8" models

> Resolution: .0005"/0.01mm



ww.mitutoyo.com/aoscd VIDEO DEMO

COMPATIBLE WITH



505-742



	Order No.	Range	Remarks	List	Promo
	No SPC Outpu	ıt Style			
	500-195-30	0-4"/0-100mm	.075" round depth bar	\$148.00	\$140.60
	500-196-30	0-6"/0-150mm		\$161.00	\$152.95
	500-197-30	0-8"/0-200mm		\$231.00	\$219.45
	500-193-30	0-12"/0-300mm		\$464.00	\$440.80
	With SPC Out	out Style			
<b>fit</b>	500-170-30	0-4"/0-100mm	.075" round depth bar	\$177.00	\$168.15
<b>fit</b>	500-171-30	0-6"/0-150mm		\$188.00	\$178.60
<b>fit</b>	500-172-30	0-8"/0-200mm		\$248.00	\$235.60
<b>fit</b>	500-173-30	0-12"/0-300mm		\$541.00	\$513.95
	500-505-10	0-18"/0-450mm	without thumb roller	\$844.00	\$801.80
	500-506-10	0-24"/0-600mm	without thumb roller	\$927.00	\$880.65
	500-507-10	0-40"/0-1000mm	without thumb roller	\$1,790.00	\$1,700.50
	fit U-Wave Fit comp	oatible	SPC cable with dat	a switch – 1m: 9	<b>59149</b> 2m: <b>959150</b>

#### **Dial Calipers**

- > Smooth sliding with
- high shock protection. > Lock screw for dial bezel and for holding the sliding jaw position.
- > Can measure OD, ID, depth and steps.
- > Models available with carbide-tipped OD and ID jaws.

Order No.	Range	Remarks	List	Promo
505-742	6" .100"/rev.		\$125.00	\$112.50
505-738	6" .100"/rev.	carbide-tipped jaws	\$213.00	\$191.70
505-740	6" .200"/rev.		\$114.00	\$102.60
505-743	8" .100"/rev		\$182.00	\$163.80
505-746	12" .100/rev		\$289.00	\$260.10
505-749	12" .200/rev		\$269.00	\$242.10
505-742-56	6" .100"/rev.	black dial face	\$125.00	\$112.50

#### **Offset Caliper**

> Main scale jaw can slide up and down to facilitate measurement of stepped sections. (Hard-to-reach dimensions such as A, B, C can be accurately measured.)

> With depth bar.

> With SPC data output.



**ABSOLUTE** 



	Order No.	Range	Accuracy	Resolution	List	Promo
fit	573-701-20	0 - 6" / 0 - 150mm	±.001"	.0005" / 0.01mm	\$478.00	\$454.10
fit	573-702-20	0 - 8" / 0 - 200mm	±.001"	.0005" / 0.01mm	\$548.00	\$520.60
fit	573-704	0 - 12" / 0 - 300mm	±.0015"	.0005" / 0.01mm	\$735.00	\$698.25
	fit U-Wave Fit co	mpatible	SPC cable	with data switch – 1m	: <b>05CZA624</b>	2m: <b>05CZA625</b>

#### **Point Caliper**

> Narrow tip jaws fit into very small grooves and tracks, making many previously difficult outside measurements easier to obtain.

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

- > With depth bar.
- > With SPC data output.





	Order No.	Range	Accuracy	Resolution	List	Promo	
fit	573-721-20	0 - 6" / 0 - 150mm	±.001"	.0005" / 0.01mm	\$419.00	\$398.05	
fit	573-725-20*	0 - 6" / 0 - 150mm	±.001"	.0005" / 0.01mm	\$520.00	\$494.00	

\* Extended tips SPC cable with data switch - 1m: 05CZA624 2m: 05CZA625 fit U-Wave Fit compatible

#### **Low-Force Caliper**

- > Due to the low measuring force, these calipers are ideal for elastic or resilient workpieces such as plastic parts and rubber parts that standard calipers can't measure consistently.
- > With SPC data output.





	Order No.	Range	Accuracy	Resolution	List	Promo
fit	573-291-30	0 - 7" / 0 - 180mm	±.002"	.0005" / 0.01mm	\$845.00	\$802.75

fff U-Wave Fit compatible

## **Mitutoyo**

#### **Digimatic Caliper with Nib-Style Jaws**

> The rounded faces of the jaws are ideal for accurate ID (inside diameter) measurement.

> With SPC output.





SPC cable with data switch –	1m: <b>05CZA624</b>	2m: <b>05CZA625</b>
------------------------------	---------------------	---------------------

	Order No.	Range*	Accuracy	Resolution	List	Promo
<b>fit</b>	550-311-20	0 (.4") - 8" / 0 (10) - 200mm	±.001"	.0005" / 0.01mm	\$541.00	\$513.95
fit	550-341-10	0 (.4") - 12" / 0 (10) - 300mm	±.0015"	.0005" / 0.01mm	\$786.00	\$746.70
	550-223-10**	0 (.5") - 18" / 0 (20) - 450mm	±.002"	.0005" / 0.01mm	\$985.00	\$935.75
	550-225-10**	0 (.5") - 24" / 0 (20) - 600mm	±.002"	.0005" / 0.01mm	\$1,100.00	\$1,045.00
	550-227-10**	0 (1") - 40" / 0 (20) - 1000mm	±.003"	.0005" / 0.01mm	\$1,970.00	\$1,871.50
	*( ): Minimum dimensio	on in ID measurement **	Models are not IP6	67 rated Ifit U	J-Wave Fit comp	atible

#### **Digimatic Caliper with Nib** and Standard Jaws

> The rounded faces of the jaws are ideal for accurate ID (inside diameter) measurement.

> With SPC output.





	u u	SPC cable with data switch – 1m: 05CZA624 2m: 05CZA625							
	Order No.	Range*	Accuracy	Resolution	List	Promo			
fit	551-311-20	0 (.4") - 8" / 0 (10) - 200mm	±.001"	.0005" / 0.01mm	\$596.00	\$566.20			
fit	551-341-10	0 (.4") - 12" / 0 (10) - 300mm	±.002"	.0005" / 0.01mm	\$854.00	\$811.30			
	551-224-10**	0 (.5") - 20" / 0 (20) - 500mm	±.0025"	.0005" / 0.01mm	\$1,260.00	\$1,197.00			
	551-226-10**	0 (.5") - 30" / 0 (20) - 750mm	±.0025"	.0005" / 0.01mm	\$2,040.00	\$1,938.00			
	*( ): Minimum dimens ** Models are not IF	ion in ID measurement 267 rated	fff U-Wave F	it compatible					

#### **Inside Caliper** Knife-Edge/Inside Groove/Point Jaw

- > Special ID jaw calipers are designed for difficult-to-measure areas, such as ID grooves or recessed areas.
- > With SPC data output.













#### Inside groove



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	Order No.	Range	Accuracy	List	Promo
	573-742-20	.4" - 8" / 10-200mm	±.002"	\$937.00	\$890.15
<b>fit</b>	573-745-20	.4" - 6" / 10-150mm	±.002"	\$749.00	\$711.55
fit	573-746-20	.8" - 6" / 20-150mm	±.0015"	\$909.00	\$863.55

**fit** U-Wave Fit compatible

SPC cable with data switch - 1m: 05CZA624 2m: 05CZA625

# **Dial Test Indicators**

#### **Dial Test Indicators**

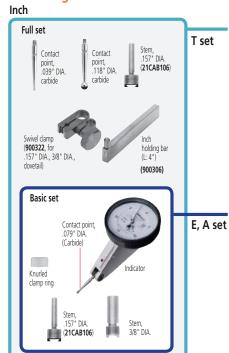


- > New .000050" / 50µinch model now available!
- > One piece movement assembly for improved durability & impact resistance
- > Contact point length shown on dial face
- > Included Inspection certificate shows results from both measuring directions
- > Resilient crystal with high resistance to glare, scratches and impact

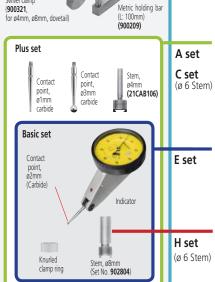
Mitutoyo
10, TR.7
15 0.01mh
25 25
Contact point length is printed on dial face

Contact point length is printed on dial face to avoid accuracy issues

#### **Set Configuration**



# Stem, .157\* DIA. Stem, 3/8\* DIA. Metric Full set Swivel clamp (900321, for p4mm, ø8mm, dovetail) (900209) Metric holding bar (L: 100mm) (900209)



Part #	Range	Graduations	Set Type	Face Color	List	Promo	Remarks
Standa	ard						
513-407-10E	.008"	.00005"	Basic	White	\$192.00	\$172.80	NEW
513-407-10T	.008"	.00005"	Full	White	\$225.00	\$202.50	NEW
513-401-10E	.14"	0.001mm	Basic	Yellow	\$228.00	\$205.20	
513-402-10E	.03"	.0005"	Basic	White	\$134.00	\$120.60	
513-402-10T	.03"	.0005"	Full	White	\$159.00	\$143.10	
513-403-10E	.008"	.0001"	Basic	White	\$174.00	\$156.60	
513-403-10T	.008"	.0001"	Full	White	\$204.00	\$183.60	
513-404-10E	0.8mm	0.01mm	Basic	Yellow	\$136.00	\$122.40	
513-404-10A	0.8mm	0.01mm	Plus	Yellow	\$149.00	\$134.10	
513-404-10T	0.8mm	0.01mm	Full	Yellow	\$160.00	\$144.00	
513-405-10E	0.2mm	0.002mm	Basic	Yellow	\$150.00	\$135.00	
513-405-10T	0.2mm	0.002mm	Full	Yellow	\$197.00	\$177.30	
513-406-10E	.03"/0.7mm	.0005"/0.01mm	Basic	White/Yellow	\$157.00	\$141.30	
513-406-10T	.03"/0.7mm	.0005"/0.01mm	Full	White/Yellow	\$174.00	\$156.60	
513-409-10E	0.2mm/.0076"	0.002mm/.0001"	Basic	Yellow/White	\$202.00	\$181.80	
513-409-10T	0.2mm/.0076"	0.002mm/.0001"	Full	Yellow/White	\$205.00	\$184.50	
513-412-10E	.03"	.0005"	Basic	White	\$192.00	\$172.80	
513-412-10T	.03"	.0005"	Full	White	\$221.00	\$198.90	
513-415-10E	1.0mm	0.01mm	Basic	Yellow	\$144.00	\$129.60	Long stylus
513-415-10H	1.0mm	0.01mm	Basic	Yellow	\$158.00	\$142.20	Long stylus
:I: Ruby Tip							
513-472-10E	.03"	.0005"	Basic	White	\$149.00	\$134.10	
513-479-10E	.03"	.0005"	Basic	White	\$158.00	\$142.20	Long stylus
Standa	ard (20° tilted f	ace)					
513-442-10A	.06"	.0005"	Basic	White	\$181.00	\$162.90	
513-442-10T	.06"	.0005"	Full	White	\$205.00	\$184.50	
513-442-16A	.06"	.0005"	Basic	Black	\$181.00	\$162.90	
513-442-16T	.06"	.0005"	Full	Black	\$205.00	\$184.50	
513-443-10A	.016"	.0001"	Basic	White	\$228.00	\$205.20	
513-443-10T	.016"	.0001"	Full	White	\$259.00	\$233.10	
513-446-16A	.06"	.0005"	Basic	Black	\$242.00	\$217.80	
513-446-16T	.06"	.0005"	Full	Black	\$273.00	\$245.70	
513-446-10A	.06"	.0005"	Basic	White	\$242.00	\$217.80	Long stylus
513-446-10T	.06"	.0005"	Full	White	\$273.00	\$245.70	Long stylus
Vertical	: dial is on the	top of the frame					
513-452-10E	.03"	.0005"	Basic	White	\$174.00	\$156.60	
513-452-10T	.03"	.0005"	Full	White	\$192.00	\$172.80	
513-453-10E	.008"	.0001"	Basic	White	\$207.00	\$186.30	
	dial is on the	side of the frame	9				

#### **Calculation-Type Digimatic Indicator ID-C**

- > The Absolute Digimatic indicator performs internal calculations using the formula Ax+B+Cx-1 (assuming spindle displacement as x), while the specified coefficients A, B and C can be set with respect to the purpose of measurement or dimensions of the fixtures. This unique feature allows for reading measurements directly, without fumbling for conversions.
- > Calculation-Type Digimatic Indicator features both a key lock and parameter lock.
- > Fast measurement frequency up to 50 per second.
- > An analog bar provides easy-to-read values when scanning for Max, Min and TIR Values.

.00005/.0001/.0005′ (0.001/0.01mm)

Selectable

Stem dia. 3/8" #4-48 UNF Thread Order No. Resolution

> Improved parameter setting software makes it even easier to set all of the available parameters and determine and upload the proper coefficients for calculation. (optional) 21EZA313

List

\$458.00

\$614.00

\$770.00



**Measuring Force** 

1.5N or less

1.8N or less

2.3N or less



Promo

\$412.20

\$552.60

\$693.00

Data Management Software by Mituto









543-342B

# **Bore Gage ABSOLUTE Digimatic Indicator ID-C**

Accuracy

±.00010"/0.003mm

±.00010"/0.003mm

±.00025"/0.006mm

> Hold automatically picks up hole diameter after a sweep.

Range

.5"/12.7mm

1"/25.4mm

2"/50.8mm

- > Bore Gage Digimatic Indicator features both a key lock and parameter lock.
- > Fast measurement frequency up to 50 per second.
- > An analog bar indicator is integrated to enhance the intuition in reading.
- > Up to three sets of master values and upper/lower tolerance values can be memorized.

- > Go/no-go judgment
- > Employing the ABSOLUTE linear encoder, the ID-C always displays the spindle Absolute Position from the origin at power-on.

SPC cable - 1m: 905338 2m: 905409

> Improved parameter setting software makes it even easier to set all of the available parameters and determine and upload the proper coefficients for calculation. (optional) 21EZA313







Order No.	Resolution	Range	Accuracy	Measuring Force	List	Promo
543-312B	.00005/.0001/.0005" (0.001/0.01mm)	.5"/12.7mm	±.00010"/0.003mm	1.5N or less	\$458.00	\$412.20

SPC cable - 1m: 905338 2m: 905409



#### **Peak Hold ABSOLUTE Digimatic Indicator ID-C**

With Max./Min. Value Holding Function

- > Peak Hold Digimatic Indicator features both a Key Lock and Parameter Lock.
- > An analog bar provides easy-to-read values when scanning for Max, Min and TIR Values.
- > Go/no-go judgment
- > The maximum, minimum or runout value can be displayed during measurement.
- MeasurLink® ENABLED Data Management Software by Mituto > Fast measurement frequency up to 50 per second.
- > Employing the ABSOLUTE linear encoder, the Signal ID-C always displays the spindle Absolute Position from the origin at power-on.
- > Improved parameter setting software makes it even easier to set all of the available parameters and determine and upload the proper coefficients for calculation. (optional) 21EZA313

			· ·						
Order No.	Resolution	Range	Accuracy	Remarks	List	Promo			
Stem dia. 3/8", #4-48 UNF Thread									
543-302	.00005/.0001/.0005"	.5"/12.7mm	±.00010"/0.003mm	w/lug	\$458.00	\$412.20			
543-302B	0.001/0.01mm Selectable	.5"/12.7mm	±.00010"/0.003mm	Flat-back	\$458.00	\$412.20			

SPC cable - 1m: 905338 2m: 905409







Prices effective September 23 through December 13, 2019

#### **Digimatic Indicator ID-H**

Remote Programming Capable

- > This digital indicator offers the excellent accuracy and functionality expected from this class of indicator. Take advantage of its high accuracy backed up by 0.5µm / .00002" resolution, remote control functionality via a handheld controller (or an RS-232C interface) and easy runout measurements with the well-established analog bar display.
- Stem dia. 3/8" #4-48 UNF Thread

- >The maximum, minimum or runout value can be displayed during measurement.
- > Go/no-go judgment is performed by setting the upper and lower tolerances. If a judgment result is out of tolerance, the display backlighting changes from green to red, so tolerance judgment can be made at a glance.
- > With RS-232C input/output



Order No.	Resolution	Range	Model	Accuracy	List	Promo
543-562A	.00002", .00005", .0001", 0.0005mm, 0.001mm	1.2" / 30.4mm	ID-H530E	0.0015mm	\$909.00	\$818.10
543-564A		2.4" / 60.9mm	ID-H560E	0.0025mm	\$1,080.00	\$972.00

SPC cable - 1m: 936937 2m: 965014

#### **ABSOLUTE Digimatic Indicator ID-F**

- > With the ABSOLUTE linear encoder technology, once the measurement reference point has been preset, it will not be lost when the power is turned on.
- > Go/no-go judgment is performed by setting the upper and lower tolerances. If a judgment result is out of tolerance, the display backlighting changes from green to red, so tolerance judgment can be made at a glance.
- > The maximum, minimum or runout value can be displayed during measurement.

> An analog bar indicator has been integrated to handle upper/lower limit approaching and zero approaching. It enhances the ease of operation in the same manner as a dial indicator. The display range of the analog bar can be changed.



Stem dia. 3/8" #4-48 UNF Thread

Order N	o. Resolution	Range	Model	Accuracy	List	Promo
543-552	.00005", .0001", .0005", .001",	1" / 25.4mm	ID-F125E	.00012"	\$687.00	\$618.30
543-558	0.001mm, 0.01mm	2" / 50.8mm	ID-F150HE	.00012"	\$796.00	\$716.40

SPC cable – 1m: **936937** 2m: **965014** 



Data Management Software by Mituto

#### **ABSOLUTE Digimatic Indicator ID-U**

- > Slim digital indicator with low price.
- > Large LCD and simple key operation.
- > After the initial origin setting, the ID-U no longer needs absolute positioning over the entire battery life; the origin is remembered even after power-off.
- > Ideal for installation into measuring devices because of compact design and long battery life.
- > Employing the ABSOLUTE linear encoder, the ID-U always displays the spindle Absolute Position from the origin at power-on. Also unlimited response speed eliminates overspeed errors.
- > Flat-back type has no option for backs.

Order No.	Resolution	Range	Model	Accuracy	Measuring force	List	Promo
575-123	.0005"/0.01mm	1" / 25.4mm	ID-U1025E	.0008"	1.8N or less	\$201.00	\$180.90

SPC cable – 1m: **905338** 2m: **905409** 





#### **ABSOLUTE Digimatic Indicator ID-S**

- > Employing the ABSOLUTE linear encoder, the ID-S always displays the spindle Absolute Position from the origin at power-on. Also unlimited response speed eliminates overspeed errors.
- > Dust/Water protection level: IP42 (IP53: **543-794B, 543-795B, 543-796B**)
- >SPC data output.



Resolution	Range	Accuracy	Measuring force	Remarks	List	Promo			
tem dia. 3/8", #4-48 UNF Thread									
.00005"/0.001mm	.5" / 12.7mm	±.0001"	1.5N or less	w/ lug back	\$281.00	\$266.95			
.00005"/0.001mm	.5" / 12.7mm	±.0001"	2.5N or less	w/ lug back	\$310.00	\$294.50			
.0001"/0.001mm	.5" / 12.7mm	±.0001"	1.5N or less	w/ lug back	\$281.00	\$266.95			
.0005"/0.01mm	.5" / 12.7mm	±.0010"	1.5N or less	w/ lug back	\$182.00	\$172.90			
.00005"/0.001mm	.5" / 12.7mm	±.0001"	1.5N or less	w/ flat-back	\$281.00	\$266.95			
.00005"/0.001mm	.5" / 12.7mm	±.0001"	2.5N or less	w/ flat-back	\$310.00	\$294.50			
.0001"/0.001mm	.5" / 12.7mm	±.0001"	1.5N or less	w/ flat-back	\$281.00	\$266.95			
.0005"/0.01mm	.5" / 12.7mm	±.0010"	1.5N or less	w/ flat-back	\$182.00	\$172.90			
M2.5 x 0.45 Thread									
.00005"/0.001mm	.5" / 12.7mm	±.0001"	1.5N or less	w/ lug back	\$290.00	\$275.50			
.00005"/0.001mm	.5" / 12.7mm	±.0001"	2.5N or less	w/ lug back	\$319.00	\$303.05			
.0005"/0.01mm	.5" / 12.7mm	±.001"	1.5N or less	w/ lug back	\$182.00	\$172.90			
.00005"/0.001mm	.5" / 12.7mm	±.0001"	1.5N or less	w/ flat-back	\$290.00	\$275.50			
.00005"/0.001mm	.5" / 12.7mm	±.0001"	2.5N or less	w/ flat-back	\$319.00	\$303.05			
.0005"/0.01mm	.5" / 12.7mm	±.001"	1.5N or less	w/ flat-back	\$182.00	\$172.90			
	., #4-48 UNF Thread .00005"/0.001mm .00005"/0.001mm .0001"/0.001mm .0005"/0.01mm .00005"/0.001mm .00005"/0.001mm .0001"/0.001mm .0005"/0.01mm .0005"/0.01mm .0005"/0.01mm .0005"/0.01mm .0005"/0.01mm .0005"/0.01mm .0005"/0.01mm	., #4-48 UNF Thread .00005"/0.001mm	.00005"/0.001mm	.00005"/0.001mm	Resolution   Range   Accuracy   Measuring force   Remarks	#4-48 UNF Thread  .00005"/0.001mm			

SPC cable - 1m: 905338 2m: 905409

#### **IDC Digimatic Indicators**

- > Absolute Encoder ensures all settings and readings maintained for the life of the battery (even when the power is turned off).
- > Preset, zero set, inch/mm, +/- direction and go/no-go functions.
- > Face rotates 330° for use at various angles.
- > Stem diameter: 3/8".
- > Protected from overspeed errors.

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

- > SPC output provided.
- > Average battery life 7,000 hours using SR-44 battery (938882).

Order No.	Range	Remarks	List	Promo					
.0005"/0.01mm Resolution									
543-402	.500"/12.7mm	lug back	\$319.00	\$303.05					
543-402B	.500"/12.7mm	flat back	\$319.00	\$303.05					
543-476B	1"/25mm	flat back	\$468.00	\$444.60					
543-496B	2"/50mm	flat back	\$615.00	\$584.25					
.00005"/.0001	"/.0005"/0.001mm/0	.01mm selectable re	solutions						
543-392	.500"/12.7mm	lug back	\$437.00	\$415.15					
543-392B	.500"/12.7mm	flat back	\$437.00	\$415.15					
543-472B	1"/25mm	flat back	\$585.00	\$555.75					
543-492B	2"/50mm	flat back	\$734.00	\$697.30					

Prices effective September 23 through December 13, 2019

SPC cable - 1m: 905338 2m: 905409



# Bore Gages / Holtest

#### **Bore Gages**

- > Carbide-tipped contact points for durability.
- > The dial indicator is fully protected by a rugged cover.

> Optional extension rods can be attached for measuring deep holes.





#### **Optional Accessories**

953549:	125mm / 4.92" Extension rod for 18-35mm / .7 -1.4" models
953552:	125mm / 4.92" Extension rod for 35-160mm / 1.4 - 6.5" models
953557:	125mm / 4.92" Extension rod for 160-400mm / 6.5 - 16" models
953550:	250mm / 9.84" Extension rod for 18-35mm / .7 - 1.4" models
953553:	250mm / 9.84" Extension rod for 35-160mm / 1.4 - 6.5" models
952361:	250mm / 9.84" Extension rod for 160-400mm / 6.5 - 16" models
953551:	500mm / 19.69" Extension rod for 18-35mm / .7 - 1.4" models
953554:	500mm / 19.69" Extension rod for 35-160mm / 1.4 - 6.5" models
953558:	500mm / 19.69" Extension rod for 160-400mm / 6.5 - 16" models
953555:	750mm / 29.53" Extension rod for 35-160mm / 1.4 - 6.5" models
953559:	750mm / 29.53" Extension rod for 160-400mm / 6.5 - 16" models
953556:	1000mm / 39.37" Extension rod for 35-160mm / 1.4 - 6.5" models
953560:	1000mm / 39.37" Extension rod for 160-400mm / 6.5 - 16" models

**MeasurLink**® ENABLED

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Order No	Range	<b>Graduation</b> (Indicator)	Anvils	Spacers	List	Promo
511-751	.7 - 1.4"		9	2	\$423.00	\$380.70
511-752	1.4 -2.5"		6	4	\$413.00	\$371.70
511-753	2.0 - 6.0"	0001" (2022CB 10)	11 (2" sub anvil)	4	\$451.00	\$405.90
511-754	4.0 - 6.5"	.0001" (2923SB-10)	13	4	\$596.00	\$536.40
511-755	6.5 - 10"		6	7	\$672.00	\$604.80
511-756	10 -16"		5 (3" sub anvil)	7	\$799.00	\$719.10



#### **Digimatic Holtest**

- > TiN-coated measuring contact points provide excellent durability and impact resistance and allow 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)

Order No	Range	Accuracy	List	Promo
468-261	.27535" / 6.925 - 8.89mm	±.0001"	\$1,110.00	\$888.00
468-262	.35425" / 8.89 - 10.795mm	±.0001"	\$1,110.00	\$888.00
468-263	.4255" / 10.795 - 12.7mm	±.0001"	\$1,120.00	\$896.00
468-264	.565" / 12.7 - 16.51mm	±.0001"	\$1,220.00	\$976.00
468-265	.658" / 16.51 - 20.32mm	±.0001"	\$1,220.00	\$976.00
468-266	.8 - 1" / 20.32 - 25.4mm	±.00015"	\$1,250.00	\$1,000.00
468-267	1 - 1.2" / 25.4 - 30.48mm	±.00015"	\$1,250.00	\$1,000.00
468-268	1.2 - 1.6" / 30.48 - 40.64mm	±.00015"	\$1,280.00	\$1,024.00
468-269	1.6 - 2" / 40.64 - 50.8mm	±.00015"	\$1,290.00	\$1,032.00
468-270	2 - 2.5" / 50.8 - 63.5mm	±.00015"	\$1,400.00	\$1,120.00
468-271	2.5 - 3" / 63.5 - 76.2mm	±.00015"	\$1,400.00	\$1,120.00
468-272	3 - 3.5" / 76.2 - 88.9mm	±.00015"	\$1,420.00	\$1,136.00
468-273	3.5 - 4" / 88.9 - 101.6mm	±.00015"	\$1,440.00	\$1,152.00



#### **Optional Accessories**

**04AZB157:** Mounting plate for stand

**156-101-10:** Stand

**952322:** Extension rod 100mm / 3.94"

For range 6-12mm / .275 - .5" models

**952621:** Extension rod 150mm / 5.9"

For range 12-20mm / .5" - .8" models 952622:

Extension rod 150mm / 5.9" For range 20-50mm / .8" - 2" models

952623: Extension rod 150mm / 5.9"

For range 50-300mm / 2" - 12" models

## 10% Off - Plus Complimentary Accredited Calibration\* (A2LA 0750.01) and Shipping\*\*

#### **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.



\*Complimentary accredited calibration applies to orders placed September 23 through December 13, 2019. 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.

\*\*Complimentary ground shipping for the 48 contiguous United States. Offer applies to orders placed September 23 through December 13, 2019. This offer is void wherever prohibited or restricted by law. No cash value. For Alaska and Hawaii special rates apply. Contact us for details. Orders may only be shipped to a single address. If customer returns product, they are responsible for the shipping cost. Refer to our terms and conditions for further details.



#### **Digimatic Height Gages**

Now with higher resolution (.0002"/.0005")

- > Heavy duty, multi-function type.\*
- > Carbide-tipped long scriber is provided.
- > Rigid construction ensures repeatable measurement.
- > Switchable resolution.
- > Optional bi-directional touch probe. (192-008)\*
- > Coarse/fine feed switching.
- >SPC data output.
- >(ABS and INC modes
- > Two-value preset memory
- > Data/hold
- > Inch/mm conversion

MeasurLink® ENABLED



Order No.	Range	Resolution	Accuracy	List	Promo
192-670-10*	0-12"/0-300mm		±001"	\$1,820.00	\$1,456.00
192-671-10*	0-18"/0-450mm		±0015"	\$2,350.00	\$1,880.00
192-672-10*	0-24"/0-600mm		±0015"	\$3,010.00	\$2,408.00
192-673-10*	0-40"/0-1000mm	.0005"(0.01mm) [.0002"(0.005mm)	±0025"	\$5,640.00	\$4,512.00
192-630-10	0-12"/0-300mm	Switchable)]	±001"	\$1,590.00	\$1,272.00
192-631-10	0-18"/0-450mm		±0015"	\$2,170.00	\$1,736.00
192-632-10	0-24"/0-600mm		±0015"	\$2,770.00	\$2,216.00
192-633-10	0-40"/0-1000mm		±0025"	\$5,230.00	\$4,184.00

#### **Dial Height Gages**

Double-column structure ensures high measuring accuracy.

> 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.
- > The counters and dial can be re-zeroed at any scriber position.



Easy and error-free reading



192-150

Order No.	Range	Graduation	List	Promo
192-150	0-12"	.001"	\$1,040.00	\$832.00
192-151	0-18"	.001"	\$1,440.00	\$1,152.00
192-152	0 - 24"	.001"	\$1,870.00	\$1,496.00
192-153	0 - 40"	.001"	\$4,110.00	\$3,288.00

# Laser Scan Micrometers / Surftest

#### **Bench Top**

#### Laser Scan Micrometer LSM-9506

- MeasurLink® ENABLED

  Data Management Software by Mitutoyo
- > Integrated display and measuring unit in one unit.
- > Statistical calculation mode.
- > RS-232C output, I/O interface and SPC output interface are standard.





Order Number	Range	Resolution	List	Promo
544-116-1A	.020" - 2.36"/0.5mm - 60mm	.000002"005"/0.00005 - 0.1mm	\$8,940.00	\$8,046.00

**QUICKTOOL\*** is 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 linearity: down to +/- 0.3 micron.
- > 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 has been increased to allow storage of up to 100 programs. 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.

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Data Management Software by Mitutoyo



Order No	Model	Range Inch	Range mm	Repeatability	Linearity	Scanning Rate	List	Promo
64PKA117	LSM-500S	.0002"08"	0.005~2mm	±0.03µm	±0.3µm	3,200 scans/sec	\$10,370.00	\$7,090.00
64PKA118	LSM-501S	.002"4"	0.05~10mm	±0.04µm	±0.5μm <sup>†</sup>	3,200 scans/sec	\$9,330.00	\$6,050.00
64PKA119	LSM-503S	.012" - 1.18"	0.3~30mm	±0.11µm	±1.0μm <sup>†</sup>	3,200 scans/sec	\$10,110.00	\$6,830.00
64PKA120	LSM-506S	.04" - 2.36"	1~60mm	±0.36µm	±3µm <sup>†</sup>	3,200 scans/sec	\$11,480.00	\$8,200.00
64PKA121	LSM-512S	.04" - 4.72"	1~120mm	±0.85µm	±6µm <sup>†</sup>	3,200 scans/sec	\$17,680.00	\$14,400.00
64PKA122	LSM-516S	.04" - 6.30"	1~160mm	±1.4µm	±7µm <sup>†</sup>	3,200 scans/sec	\$28,480.00	\$25,200.00

<sup>&</sup>lt;sup>†</sup> Linearity over entire range. Higher accuracies are possible over smaller ranges.

#### **Surftest SJ-210**

- > The 2.4" color graphic, back-lit LCD gives you excellent readability.
- > Skid system gives you user friendly and intuitive menu navigation.
- > Performs roughness analysis conforming to various international standards (EN ISO, VDA, ANSI, JIS) and customized settings.
- > Calculation results, assessed profiles, bearing and amplitude curves can be displayed.
- > Supports 16 languages.



m	2851	urLi	ink°	EN/	ABLED
Data	Manag	ement	t Softw	are by	Mitutoyo

Order No.	Decription	List	Promo
178-561-02A	SJ-210 IN 4MN (STANDARD DRIVE UNIT)	\$2,430.00	\$2,308.50
178-563-02A	SJ-210 IN 4MN (R-DRIVE UNIT)	\$2,740.00	\$2,603.00
178-571-02A	SJ-310 (INCH/MM, 4mN)	\$4,170.00	\$3,961.50

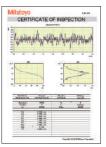
#### **Surftest SJ-310**

- > Skid system with touch-screen functionality and built-in printer.
- > Easy and intuitive menu navigation.
- > The large 5.7" color LCD gives you high visibility.
- > You can store up to 10 different measuring conditions inside the SJ-310, and up to 500 with an optional SD card.

Free communication software

- > Statistical analysis and colored tolerance judgement.
- > Supports 16 languages.





MeasurLink® ENABLED

Data Management Software by Mit

#### **Rockwell and Rockwell Superficial Hardness Tester**

#### With Real-Time Electronic Test Force Control

- > Closed-loop control of testing forces
- > Primary and final forces (loads) are applied with unparalleled accuracy and repeatability
- > Extended indenter arm reaches inside diameters and hard-to-reach surfaces at eye level, allowing the operator to easily see where the indenter accesses small or hard-to-reach parts
- > Automatic setting of preliminary test force and application of total test force
- > Indenter escape function allows automatic removal of preliminary test force at end of test cycle
- > Touch-screen operation with color LCD
- > Hardness scale is set automatically via the touch screen
- > Cylindrical and spherical surface compensation
- > Auto conversion to all hardness scales or tensile strength



Order No		810-237			
Model		HR-530			
Hardness te	esting methods	Rockwell/Rockwell Superficial/Brinell/I	Plastics hardness		
Initial test f	orce (N)	29.42N (3kgf), 98.07N (10	)kgf)		
Test force	Rockwell Superficial	147.1N (15kgf), 294.2N (30kgf), 44	11.3N (45kgf)		
(N)	Rockwell	588.4N (60kgf), 980.7N (100kgf), 14	471N (150kgf)		
	Light Force Brinell	61.29 (6.25kgf), 98.07 (10kgf), 153.2 (15.625kgf), 245.2 (25kgf), 294.2 (30kgf), 306.5 (31.25kgf), 612.9 (62.5kgf), 980.7 (100kgf), 1226 (125kgf), 1839 (187.5kgf)			
External da	ta output	RS-232C, digimatic, USB	2.0		
External dimensions	Main unit	9.84" x 26.38" x 23.82" (250(W)×667(D)×621(H) mm)	11.8" x 26.2" x 30.1" (300(W)×667(D)×766(H) mm)		
	Touch-panel display	191(W)×147(D)×71(H) mm			
Mass		Approx. 60 kg			
List		\$13,500.00			
Promo		\$12,825.00			



HR-530 (810-237)

#### Function: Touch-screen type

- Touch-screen operation with a back-lit LCD graphic display.
- Remote selection of the test force linked to the hardness scale selection.
- Choice of language: English, German, French, Spanish, Italian and Japanese.
- Cylindrical and spherical surface compensation.
- Data offset.
- Conversion to other hardness scales.
- Powerful statistical processing with flexible data point editing and 1024 data memory.
- Measured data editing
- Go/no-go tolerance judgment.
- Statistical processing, histogram and x̄-R chart

#### **Durometers (Digital and Analog)**

#### For Rubber and Plastics Hardness Testing

> Durometers are suitable for testing natural rubber, neoprene, polyesters, PVC, leather, Thiokol, nitril, wax, vinyl, cellulose acetates, glass, polystyrol and other materials.



Compact Dial 811-336-10



Compact Digital 811-336-10

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Data Management Software by Mitutoyo

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Order No	Model	Scale	Display	Graduation	Range	Indenter	List	Promo
811-335-10	HH-335	Shore A	Analog	1.0	10~90	Blunt Taper	\$599.00	\$569.05
811-336-10	HH-336	Shore A	Digital	0.5	10~90	Blunt Taper	\$1,280.00	\$1,216.00
811-337-10	HH-337	Shore D	Analog	1.0	20~90	Sharp Point	\$599.00	\$569.05
811-338-10	HH-338	Shore D	Digital	0.5	20~90	Sharp Point	\$1,280.00	\$1,216.00

#### **HH-411 Hardmatic**

Rebound portable hardness tester featuring reproducibility and ease of operation on large parts. It is lightweight and can be carried into the shop or out in the field.

Order No.	Туре	List	Promo
810-298-10	HH-411 Hardmatic	\$3,990.00	\$3,790.50



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Data Management Software by Mitutoy





#### **MF Measuring Microscopes**

- > Observation with a crisp and high-resolution erect image and a wide field of view.
- > Measuring accuracy that is highest in its class (and conforms to JIS B 7153).
- > Included 3x objective and binocular eyetube.
- > Illumination unit (reflected/transmitted) selectable from a high-intensity LED.
- > Quick-release mechanism useful for moving the stage quickly when measuring workpieces that are large in size or quantity.
- > Dedicated camera port allows for simultaneous eyepiece and digital observation.

Model No. (XY stage size)	1010D
XY stage travel range	4 x 4" / 100 x 100mm
Z-axis travel range	6" / 150mm
Focusing method	Manual focusing (Coarse focusing: 30mm/rev., Fine focusing: 0.2mm/rev.)
Measurement method	Linear encoder (2-axis model: X / Y-axis, 3-axis model: X / Y / Z-axis)
Resolution (switchable)	.0001" / .00005" / .00001" (0.001mm / 0.0005mm / 0.0001mm)
Measuring accuracy (at 20°C)	XY-axis: (2.2+0.02L)µm, L = Measuring length (mm) when not loaded, JIS B 7153
Indication accuracy (at 20°C)	Z-axis: $(5+0.04L)\mu m$ , L = Measuring length (mm), (MF-B type)
Floating function	X and Y axes with Quick-release mechanism
XY stage top size	11 x 11" / 280 x 280mm
Effective glass size	7 x 7" / 180 x 180mm
Max. stage loading	22lbs / 10kg
Max. workpiece height	6" / 150mm



Order No	Description	List	Promo	
64PKA092A	MF-A1010D Package			
176-861-10	MF-A1010D	£10,000,00	\$17,064.00	
176-445A	LED Illumination unit (MF)	\$18,960.00		
176-393	Binocular Tube			

#### **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.
- > Included 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.







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 gauge 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 lbs. / 5kg			
Linear measurement method		Micrometer heads included			
	List	\$5,590.00	\$7,290.00		
	Promo	\$5,031.00	\$6,561.00		

# Microscopes / Digital Readout

#### **Trinocular Stereo Microscope MSM-414TL**

- > Continuous 1X 4X magnification
- > Image always in focus throughout zoom range
- > Crisp, erect images with high resolution and excellent stereoscopic effect
- > Stereo-tube can be rotated a full 360° for viewing at any angle
- > Bilateral zoom control knob adds convenience and increases operator efficiency
- > Diopter adjustment for both eyepieces

Model	MSM-414TL
Order No.	377-974A
Optical tube	Trinocular
Total magnification	10X - 40X
Eyepiece	10X (377-016)
Objective	1X - 4X
Working distance	80mm
Field of view	20mm - 5mm
Dimensions	H=13.2"x W=6.7"x D=9.3"
Mass	13.2 lbs (6kg)

Order No.	Description	List	Promo
377-974A	MSM-414TL Stereo Microscope	\$1,380.00	\$1,311.00
377-481	C-mount Video Adapter for MSM-414TL	\$53.85	
64AAB526	Digital camera w/software 1080, 2.0 Mega Pixels, HDMI/USB	\$1,250.00	



Camera with software for digital viewing



**Mitutoyo's Digital Readout Packages** 

Mounting Hardware Included on all machine retrofit packages

#### All DRO Packages Include:

- >KA-200 Counter
- > KA-200 Counter tray/arm kit
- > High resolution Linear Scales
- > Bracket Kit(s)



Package Part No.	Description	X Travel	Y Travel	Z Travel	X Axis Type	Y Axis Type	Z Axis Type	List	Promo
64PKA058A	12" X 30" DRO Mill Package	30"	12"		AT715	AT715		\$1,490.00	\$1,290.00
64PKA059A	12" X 36" DRO Mill Package	36"	12"		AT715	AT715		\$1,490.00	\$1,290.00
64PKA060A	14" X 30" DRO Mill Package	30"	14"		AT715	AT715		\$1,490.00	\$1,290.00
64PKA062A	16" X 36" DRO Mill Package	36"	16"		AT715	AT715		\$1,490.00	\$1,290.00
64PKA063A	16" X 40" DRO Mill Package	40"	16"		AT715	AT715		\$1,490.00	\$1,290.00
64PKA035A	6" X 28" Lathe Package	6"		28"	AT116		AT715	\$1,450.00	\$1,250.00
64PKA039A	8" X 40" Lathe Package	8"		40"	AT116		AT715	\$1,450.00	\$1,250.00
64PKA042A	10" X 40" Lathe Package	10"		40"	AT116		AT715	\$1,450.00	\$1,250.00
64PKA046A	12" X 40" Lathe Package	12"		40"	AT116		AT715	\$1,450.00	\$1,250.00
64PKA050A	12" X 60" Lathe Package	12"		60"	AT116		AT715	\$1,650.00	\$1,450.00
64PKA052A	14" X 40" Lathe Package	14"		40"	AT116		AT715	\$1,450.00	\$1,250.00
64PKA057A	16" X 60" Lathe Package	16"		60"	AT116		AT715	\$1,650.00	\$1,450.00
64PKA026A	6" X 12" Grinder Package	6"		12"	AT116		AT116	\$1,620.00	\$1,420.00
64PKA028A	8" X 12" Grinder Package	8"		12"	AT116		AT116	\$1,620.00	\$1,420.00
64PKA029A	8" X 14" Grinder Package	8"		14"	AT116		AT116	\$1,620.00	\$1,420.00

Other packages and kits are available for mills, lathes, grinders and custom machines and applications. Contact your local distributor for details.

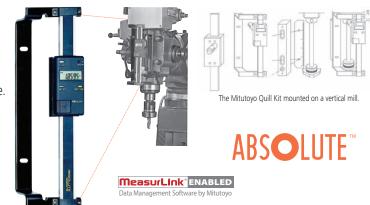
# Digimatic Scales

#### **Digimatic Quill Kit**

#### Easy Installation, Fits Most Vertical Knee Mills

- > Easy-to-read LCD with resolution of .0005"/0.01mm. 0 -6" travel.
- > Push-button controls for inch/mm, Zero-Set and On/Off.
- > Powered by a single SR-44 Battery which lasts about 1 year with normal use.
- > SPC Output for data transmission to data processors or a remote display.
- > ABS encoder.

Order No.	Description	List	Promo
053906B	Digimatic Quill Kit complete with brackets & scale for Bridgeport Type machines.	\$310.00	\$279.00



#### **ABSOLUTE Digimatic Scale Units**

- > The Origin key allows setting of an absolute zero point to be used as reference in subsequent measurements. Once set, the ABS Digimatic Scale Unit is ready to show its true position whenever turned on, rather than 0.00" as with standard models.
- >The Zero/ABS key allows the display to be zero-set at any slider position along the beam for incremental comparison measurements. This key will also allow return to the absolute coordinate with a display of the true position from the origin point.
- > No rack, no pinion, no glass scale. Digimatic scale unit is safely embedded in the hardened stainless steel blade.
- > Horizontal or vertical face according to the scale mounting direction.
- > Multi-function types with diameter displaying function are also available for lathes. (Contact Mitutoyo.)
- > All units come with two mounting brackets, each located at either end of the scale.
- > With SPC data output.

# **ABSOLUTE**

Order No	Model	Range	Accuracy	Resolution	Туре	List	Promo
572-210-30	SD-4"DX	0-4" / 0-100mm	.001" / 0.03mm	.0005" / 0.01mm	Horizontal single-function	\$235.00	\$223.25
572-211-30	SD-6"DX	0-6" / 0-150mm	.001" / 0.03mm	.0005" / 0.01mm	Horizontal single-function	\$249.00	\$236.55
572-212-30	SD-8"DX	0-8" / 0-200mm	.001" / 0.03mm	.0005" / 0.01mm	Horizontal single-function	\$290.00	\$275.50
572-213-10	SD-12"D	0-12" / 0-300mm	.002" / 0.04mm	.0005" / 0.01mm	Horizontal single-function	\$559.00	\$531.05
572-310-10	SDV-6"D	0-4" / 0-100mm	.001" / 0.03mm	.0005" / 0.01mm	Vertical single function	\$260.00	\$247.00
572-311-10	SDV-6"D	0-6" / 0-150mm	.001" / 0.03mm	.0005" / 0.01mm	Vertical single-function	\$276.00	\$262.20
572-312-10	SDV-8"D	0-8" / 0-200mm	.001" / 0.03mm	.0005" / 0.01mm	Vertical single function	\$320.00	\$304.00
572-313-10	SDV-12"D	0-12" / 0-300mm	.002" / 0.04mm	.0005" / 0.01mm	Vertical single function	\$616.00	\$585.20

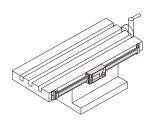


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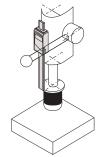
Data Management Software by Mitutovo

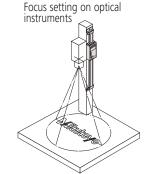
#### **Applications**

Machine table position



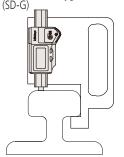
Drilling machine stroke position



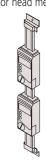


#### **Special Applications**

As a measurement jig for outdoor use (SD-G)



Detector head mechanism



www.mitutoyo.com



# Complimentary Shipping on ALL Profile Projectors\* DOMESTIC U.S. ORDERS ONLY

\*Complimentary ground shipping for the 48 contiguous United States. Offer applies to orders placed September 23 through December 13, 2019. 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. For Alaska and Hawaii special rates apply. Contact us for details.

Complimentary shipping cannot be applied toward previously placed orders. Orders may only be shipped to a single address. If customer returns product, they are responsible for the shipping cost. Refer to our terms and conditions for further details.

#### **PV-5110 Profile Projector**

- > Large 500mm screen
- > Floor model uses a downward illumination system.
- > Digital readout protractor screen (including zero-setting, ABS/INC coordinate switching functions) for easy and error-free angle measurement.
- > Angled screen allows projected images to be easily traced or compared with a template.
- > The oblique surface illumination system provides clear and bright images, allowing easy inspection of non-reflective workpieces such as plastic parts or printed materials.

#### **Standard Accessories**

- > 200 x 100mm (8 x 4") XY travel
- > 10x projection lens set
- > Surface illumination unit
- > Counter stand for KA counter
- > Power cord, halogen bulb, fuse, grounding wire, allen wrench, vinyl cover



PV-5110



MeasurLin	k" ENABLED
Data Management C	Charles Inc. A Charles

Order No.	Description	List
304-919A	Profile Projector PV-5110	\$19,500.00
264-156A	QM-Data200 (Arm-Mount Model)	\$2,720.00
332-151	Optoeye-200	\$1,650.00
12AAE672	Attachment (B) for Optoeye-200	\$58.65
174-183A	KA 200 Counter	\$587.00

#### **PJ-A3000 Vertical Profile Projector**

- A series of midsize profile projectors featuring bright, 12.40" (315mm) diameter screens and easy-to-operate XY measurement tables.
- > A floating table makes measuring quick and easy.
- > Built-in, easy-to-read digital counters are located near the projection screen, thereby minimizing strain associated with excessive movement.
- > For edge-sensing capabilities, order the Optoeye-200, part number 332-151.



PJ-A3010F-200



Order No.	Description	XY Travel	List
302-701A	PJ-A3010F-200	8" x 4"	\$13,600.00
302-702A	PJ-A3005F-150	6" x 2"	\$12,000.00
302-703A	PJ-A3010F-100	4" x 4"	\$10,800.00
302-704A	PJ-A3005D-50	2" x 2"	\$8,890.00

#### **PJ-H30 Vertical Profile Projector**

- > Newly designed optical system with high NA lenses provides drastically brighter and clearer screen images during surface illumination.
- > The three-lens mounting turret includes a 10X lens as standard. Four types of projection lenses (5X, 20X, 50X, 100X) are available.





Order No.	Description	XY Travel	List
303-712-1A	PJ-H30A1010B	4 x 4" /100x100mm	\$23,100.00
303-713-1A	PJ-H30A2010B	8 x 4" /200x100mm	\$28,200.00
303-714-1A	PJ-H30A2017B	8 x 6.7" /200x170mm	\$33,300.00
303-715-1A	PJ-H30A3017B	12 x 6.7" /300x170mm	\$38,400.00
303-732-1A	PJ-H30D1010B	4 x 4" /100x100mm	\$28,200.00
303-733-1A	PJ-H30D2010B	8 x 4" /200x100mm	\$33,300.00
303-734-1A	PJ-H30D2017B	8 x 6.7" /200x170mm	\$38,400.00
303-735-1A	PJ-H30D3017B	12 x 6.7" /300x170mm	\$43,600.00

#### **PH-3515 Profile Projector and 2D Processor Packages**

Heavy-Duty, Bench-Top Model with Horizontal Optical System featuring touch screen M2 geometric measuring display

- >ø14" Screen, Horizontal Projector
- > 10" x 6" Travel T Slot table for accessories
- > Linear Glass Scales for accurate movement
- > Profile and Fiber Optic Surface Illumination
- > Easy to use all-in-one PC Touch Screen
- > M2 Geometric 2D Measurement Software

Data Management Software by Mitutov

- > Optional Edge Detection
- > Digital built-in angle counter

MeasurLink® ENABLED Data Management Software by Mitutovo

Order No.	Description	List	Promo
64PKA088A*	PH-3515F Profile Projector w/QM Data (Arm Mount)	\$13,500.00	\$12,825.00
64PKA089B	PH-3515F Profile Projector w/KA counter & tray	\$11,600.00	\$11,020.00
64AAB176	PH-3515 Stand (optional)	\$687.00	
64PKA165	PH-3515 PROFILE PROJECTOR - WITH OPTICAL EDGE DETECTION AND TOUCH SCREEN M2 GEOMETRIC DISPLAY	\$15,900.00	\$15,105.00
64PKA166	PH-3515 PROFILE PROJECTOR - WITH TOUCH SCREEN M2 GEOMETRIC DISPLAY	\$14,500.00	\$13,775.00



<sup>\*12</sup>AAE671 and 332-151 (Optoeye-200 Edge detection system) must be sold together as an option



Optoeye-200 Edge detection system

#### PH-A14 Profile Projector and 2D Processor Packages

Horizontal projector equipped with highly accurate linear glass scales and touch screen M2 geometric measurement display

- >ø14" Screen, Horizontal Projector
- >8" x 4" Travel T Slot table for accessories
- > Linear Glass Scales for accurate movement
- > Profile and Fiber Optic Surface Illumination
- > Easy to use all-in-one PC Touch Screen Display
- >M2 Geometric 2D Measurement Software
- > Optional Edge Detection (64PKA155) for fast and repeatable measurements

Order No.	Description	List
64PKA154A	PH-A14 PROFILE PROJECTOR - WITH TOUCH SCREEN M2 GEOMETRIC DISPLAY	\$10,490.00
64PKA155A	PH-A14 PROFILE PROJECTOR - WITH OPTICAL EDGE DETECTION AND TOUCH SCREEN M2 GEOMETRIC DISPLAY	\$11,900.00

(Includes installation and A2LA accredited calibration)

#### Other packages available

Order No.	Description	List
64PKA086A	PH-A14 w/KA-200 Counter & Tray	\$7,490.00
64PKA087*	PH-A14 w/QM Data (Arm Mount)	\$9,490.00

<sup>\*12</sup>AAE671 and 332-151 (Optoeye-200 Edge detection system) must be sold together as an option





#### Mitutoyo America Corporation

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### **FALL PROMO 2019**

#### PRECISION TOOLS & INSTRUMENTS

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#### 2019 Remaining Tradeshow Schedule:

WESTEC - Sep 24, 2019 - Long Beach, CA - Booth #1209 Neuroscience Show - Oct 19, 2019 - Chicago, IL - Booth #531 The Quality Show - Oct 22, 2019 - Rosemont, IL - Booth #1308





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