

## High-Accuracy Digimatic Micrometer

Small Tool Instruments  
and Data Management



# High-Accuracy Digimatic Micrometer



0.0001<sup>Resolution</sup>mm

## The world's first 0.1μm micrometer

(Based on Mitutoyo's data valid as of June 2011)

- Enabling 0.1μm resolution measurement, this micrometer is ideal for customers who need to make highly accurate measurements with a hand-held tool.
- The High-Accuracy Digimatic Micrometer utilizes Mitutoyo's innovative 0.1μm resolution ABS (absolute) rotary sensor<sup>\*1</sup> and high-accuracy screw machining technology to reduce the instrumental error to ±0.5μm, delivering higher accuracy without sacrificing operability.

<sup>\*1</sup>: Patent registered in Japan, the United States of America, China, France, Germany, and United Kingdom)

- A highly rigid frame and high-performance constant-force mechanism<sup>\*2</sup> enable more stable measurement, while the clicks emitted while the workpiece is being measured assure the operator that measurement is proceeding normally.

<sup>\*2</sup>: Patent registered in Japan, the United States of America, , China, Germany, and United Kingdom)

- The measuring faces are hard-wearing carbide.

- Body heat transferred to the instrument is reduced by a (removable) heat shield, minimizing the error caused by thermal expansion of the frame when performing handheld measurements.

- The ABS (absolute) rotary sensor<sup>\*1</sup> eliminates the need to perform origin setting each time the power is turned on, letting you start measuring straight away. With no possibility of overspeed errors, the High-Accuracy Digimatic Micrometer also delivers a higher level of reliability.

**ABSOLUTE™**

- The High-Accuracy Digimatic Micrometer has a range of features to enable flexible measurement, including switchable resolution (0.0001mm/0.0005mm), function lock and preset.



Function lock

## Specifications

	Metric	Inch/Metric
Code No.	<b>293-100</b>	<b>293-130</b>
Measuring range	0 - 25mm	0 - 1"
Resolution	0.0001mm/0.0005mm (switchable)	.000005"/.00002" (switchable)
Instrumental error (20°C) <sup>*3</sup>	±0.5μm	±.00002"
Measuring surface	ø3.2mm	
Measuring force	7 to 9 N	
Measuring system	Electromagnetic induction type ABS rotary sensor	
Mass	400 g (440 g with heat shield attached)	
Power supply	Lithium battery (CR2032) x 1	
Battery life	Approx. two years when used under normal conditions	

<sup>\*3</sup>: Excludes quantization error of ±1 count.



293-100





Coordinate Measuring Machines



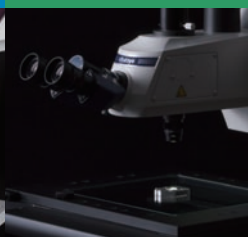
Vision Measuring Systems



Form Measurement



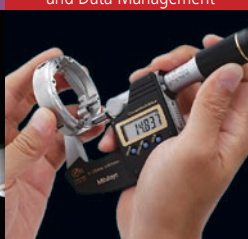
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and Data Management

**Whatever your challenges are, Mitutoyo supports you from start to finish.**

Mitutoyo is not only a manufacturer of top quality measuring products but one that also offers qualified support for the lifetime of the equipment, backed up by comprehensive services that ensure your staff can make the very best use of the investment.

Apart from the basics of calibration and repair, Mitutoyo offers product and metrology training, as well as IT support for the sophisticated software used in modern measuring technology. We can also design, build, test and deliver bespoke measuring solutions and even, if deemed cost-effective, take your critical measurement challenges in-house on a sub-contract basis.



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# Mitutoyo

## Mitutoyo Corporation

20-1, Sakado 1-Chome,  
Takatsu-ku, Kawasaki-shi,  
Kanagawa 213-8533, Japan

T +81 (0) 44 813-8230

F +81 (0) 44 813-8231

<http://www.mitutoyo.co.jp>