

# QuantuMike

## QuantuMike

A breakthrough in micrometer technology

**2 mm** feed per spindle revolution equals...



The most **revolutionary** advance  
in Micrometer design since  
James Watt's invention in 1772

...**FASTER MEASUREMENT!**

Innovative coolant-proof micrometer delivers easier handling and higher productivity.

# Mitutoyo

# The most revolutionary advance in Micrometer design since James Watt's invention in 1772...

## The next generation

Heavy investment in refining precision screw thread manufacturing methods and developing advanced rotary encoder technology has enabled Mitutoyo to introduce **QuantuMike**\*, a new fast-action, coolant-proof micrometer that represents a quantum leap in measuring efficiency and which could be fairly described as one of the outstanding innovations in the history of the digital micrometer.

Conventionally, a digital micrometer leadscrew needs a fine pitch, typically 0.5 mm, to give enough mechanical magnification for the miniature rotary encoder on the spindle to achieve the required resolution. This makes the micrometer slow to adjust when taking measurements and checking the origin point. This is frustrating for the user and is a factor that limits measurement efficiency.

**QuantuMike** overcomes this limitation by combining a precision 2mm-pitch leadscrew with an innovative high-resolution electromagnetic induction rotary encoder\*\* to increase adjustment speed by up to 4 times, giving the user a much better measurement experience and enabling a real increase in productivity.

\* Patent registered in USA. Patent pending in Europe, Japan and China). \*\* Patent pending in Europe, USA, Japan and China.

## QuantuMike features



**ABSOLUTE**<sup>TM</sup>  
Absolute System Patented by MITUTOYO



The new global standard...



## History of Mitutoyo Micrometer advancement since the invention by James Watt



Micrometer invented by James Watt (UK)

1772



Success in manufacturing micrometers domestically

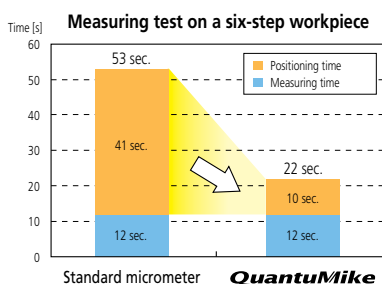
1937

1972

# ...QuantuMike

## Faster measurement

Although productivity gains depend heavily on the type of measurements made and their spacing within the measurement range, the results of one test on a stepped shaft showed that **QuantuMike** measured this workpiece 2.4 times faster than a standard digital micrometer.



## Dust/water resistance with IP65 protection level

Excellent resistance against oil, water and dust enables this product to be used in machining situations that include splashing coolant fluid.



## QuantuMike model specifications

Measuring range	Code No.	Accuracy*	Resolution	Battery Life
<b>With data output</b>				
0-1" / 0-25 mm	293-181	$\pm 1\mu\text{m}/\pm 0.00005"$	0.001mm / 0.00005"	2 years
1-2" / 25-50 mm	293-182	$\pm 1\mu\text{m}/\pm 0.00005"$	0.001mm / 0.00005"	2 years
<b>Without data output</b>				
0-1" / 0-25 mm	293-185	$\pm 1\mu\text{m}/\pm 0.00005"$	0.001mm / 0.00005"	2 years
1-2" / 25-50 mm	293-186	$\pm 1\mu\text{m}/\pm 0.00005"$	0.001mm / 0.00005"	2 years

\* Excluding quantization error in the least significant digit.

Includes case, adjusting wrench, battery and a Certificate of Inspection traceable to National Metrology Institutes.

This instrument is not rustproof and therefore corrosion protection should be applied after use.

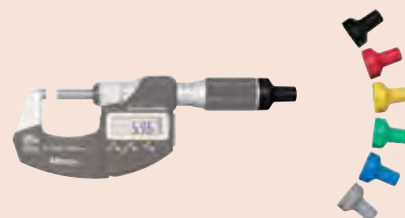


## Optional accessories

Coloured sleeves to fit over the speeder for aiding instrument identification.

Order No.	Colour
04GAA899*	Black
04GAA900	Red
04GAA901	Yellow
04GAA902	Green
04GAA903	Blue
04AAB208	Grey

\* Standard accessory



## Optional accessories for SPC

Accessories are available to enable **QuantuMike** models fitted with a DIGIMATIC data output port to be integrated into an SPC system based on a dedicated processor or a PC.

Order No.	Description
05CAZ662	Signal Cable 1 m
05CAZ663	Signal Cable 2 m
264-012	Input Tool IT-12U
264-504	DIGIMATIC Mini Processor DP-1VR

264-012

264-504



Vatt in 1772



Starting production of digit outside micrometers



1979

Starting production of DIGIMATIC micrometers



2003

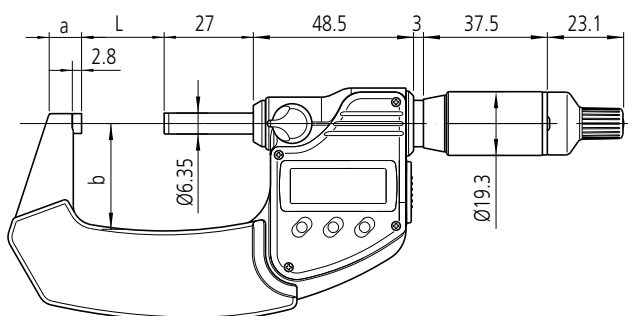
Development of coolant-proof micrometers with degree of protection IP65



2007

**QuantuMike**

## Dimensions



0-25 mm (0-1") range model

Coordinate Measuring Machines

Vision Measuring Systems

Form Measurement

Optical Measuring

Sensor Systems

Test Equipment and  
Seismometers

Digital Scale and DRO Systems

Small Tool Instruments and  
Data Management

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