

High-speed and High-accuracy Digimatic Micrometer QuantuMike

Small Tool Instruments
and Data Management



DIGIMATIC *S1*



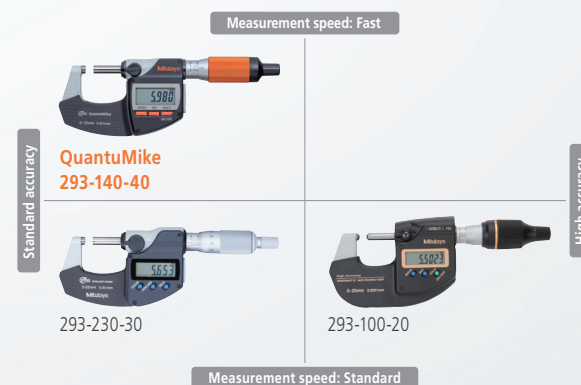
COOLANT PROOF™ IP65

High precision, further progress

Significantly reduces time
for workpiece approach and
release

Utilizes a 2.0 mm high-lead screw, reducing approach time by approximately 60%. Furthermore, the workpiece release time is also shortened, making it possible to dramatically reduce time when measuring multi-stepped workpieces.

This unit is designed for ease of use in various workplaces.



1

High speed & High accuracy

Achieves spindle movement 4 times faster than standard micrometers. Enables more efficient measurement work through speedy movement and excellent accuracy with a maximum permissible error (JMP) of just $\pm 1 \mu\text{m}$.

2

Reliable

Detects collision with workpiece due to excessive speed. Is also equipped with functions such as tolerance judgment, calculation, and calibration timing notification that allow measurement work to be performed reliably, without human error.

3

Easy to use

Equipped with various features to meet the needs of measuring workers, such as a large display and bidirectional communication. Designed for ease of use, the main unit enables comfortable measurement in actual manufacturing processes.



See video from here

QuantuMike

The product name QuantuMike is a combination of Quantum* and Micrometer. This name reflects the quantum* leap forward in precision measurement that our company has pioneered, as well as our commitment to advancement and innovation.

*Quantum = dramatic

U-WAVE fit

MeasurLink ENABLED
Data Management Software by Mitutoyo

DIGIMATIC S1

COOLANT PROOF™ IP65



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ABSOLUTE™



TECHNOLOGY

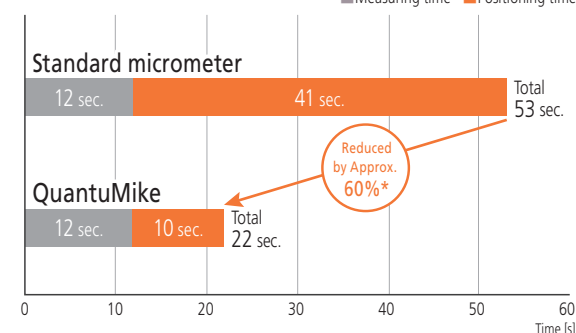
1 High speed & High accuracy



High-speed movement for faster measurement

Using our unique processing technology, we have produced a highly accurate, high-lead screw for the slim spindle. Unlike a typical micrometer with a 0.5 mm screw lead, the thimble moves the spindle 2.0 mm in a single rotation, allowing for rapid measurement. Because the spindle can be released by a large amount with just a small amount of rotation, it is ideal for cases such as when various dimensions need to be measured.

Comparison of time needed to measure a 6-stepped workpiece (with one hand)



*According to Mitutoyo's comparison test data

High accuracy measurement of $\pm 1 \mu\text{m}$

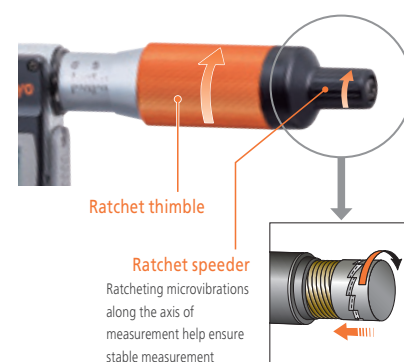
With a maximum permissible error (MPE) of just $\pm 1 \mu\text{m}$ *, QuantuMike is suitable for workpieces that require increasingly high accuracy.

* $\pm 2 \mu\text{m}$ in a measurement range of 50 - 100 mm

Ratchet thimble mechanism for stable measurement

The micrometer features a ratchet thimble mechanism that allows stable measurement to be performed, even when operated one-handed. Ratcheting works with both the thimble and the speeder. The sound of the ratchet allows the user to verify the certainty of operation, and the speeder ratchet is convenient for rapid spindle feed.

Ratchet thimble mechanism



Reliable operation through the sound of the ratchet



Can be used in environments where there is water, oil, or dust

The micrometer achieves protection level IP65 for water-resistant and dust-resistant performance. It can be used with confidence even at sites where it may be splashed by coolant liquid.



COOLANT PROOF™ IP65

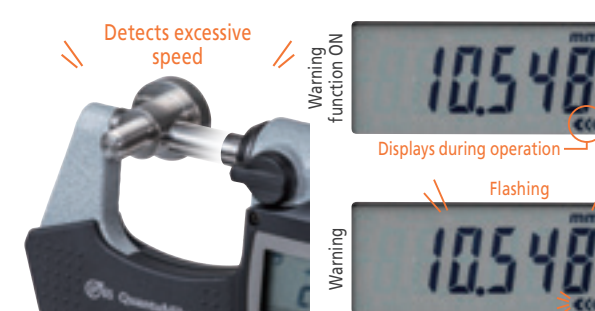


ACCESSIBILITY

2 Reliable

Approach speed warning function

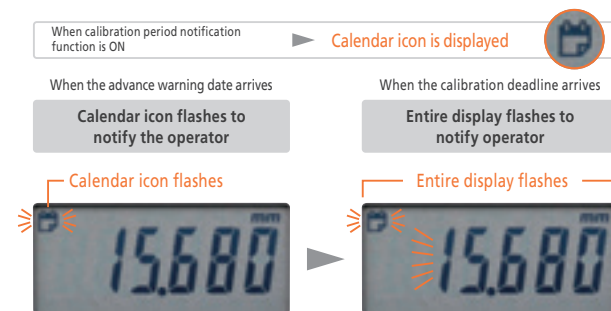
NEW



The approach speed warning function detects collisions with workpieces due to excessive speed. Even inexperienced workers can obtain stable and accurate measurement results.

Calibration schedule alert function

NEW



Calibration advance warning date and calibration date can be set. A warning is displayed when the calibration time approaches and on the calibration date to prevent skipped calibration. This is an effective function for proper management of the Digimatic gage.

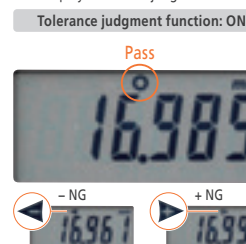
Supports measuring workers with tolerance judgment and calculation functions

NEW

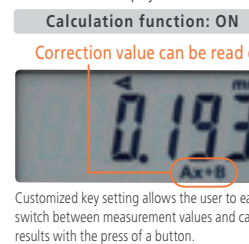
Measurement with QuantuMike



Displays tolerance judgment mark



Calculates and displays correction value



Simply enter the calculation result



The micrometer determines whether the measurement value is within the upper and lower limits of tolerance and displays a tolerance judgment mark. The user can judge pass/failure at a glance.

Also, using the calculation function, it is possible to calculate correction values for a processing machine from the measurement results. This eliminates the potential inconvenience of calculations and prevents human errors such as confusing plus and minus values when entering correction values into a processing machine, thereby contributing to the reduction of processing defects.

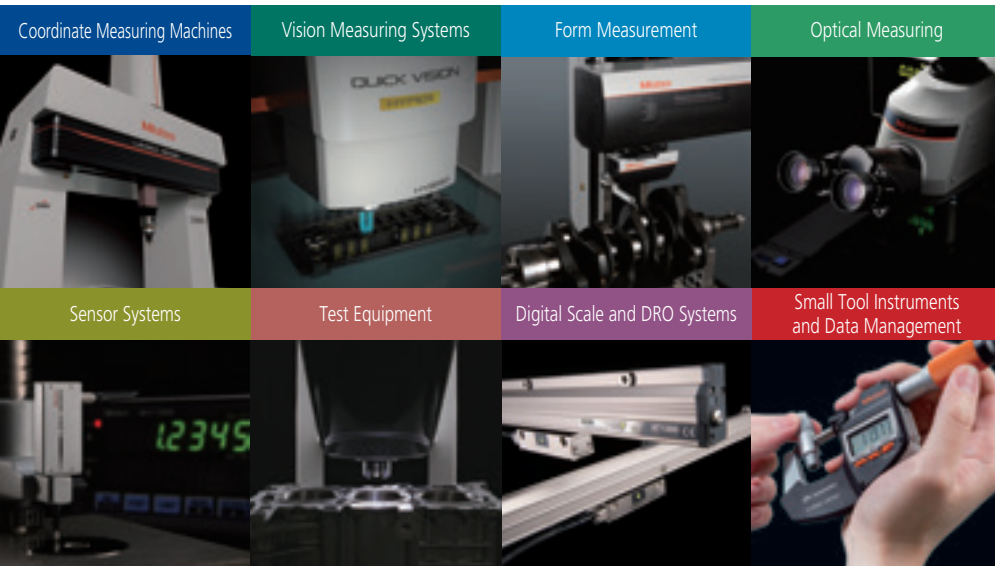
Key operation lock to prevent errors



The function settings can be locked to prevent them from being changed.

Auto power ON /OFF

If the micrometer is left idle for approx. 20 minutes, the power will automatically turn off to reduce battery consumption. Turning the spindle or operating the keys causes the power to come on automatically.



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 measuring solutions and even, if deemed cost-effective, take your critical measurement challenges in-house on a sub-contract basis.



Find additional product literature and our product catalogue

<https://www.mitutoyo.co.jp/global.html>

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