

USABILITY

3 Easy to use

Large display with excellent visibility



The display portion has been increased without enlarging the body of the unit itself. Measurement values and feature icons are now easier to see from any angle.

Large buttons and key customization



Frequently used functions can be easily recalled for improved work efficiency. Compared with conventional models, the size of the buttons is larger, making them easier to press. Key operation settings can be freely modified.

Supports bidirectional serial communication* to dramatically improve work efficiency by connecting to a PC or mobile device

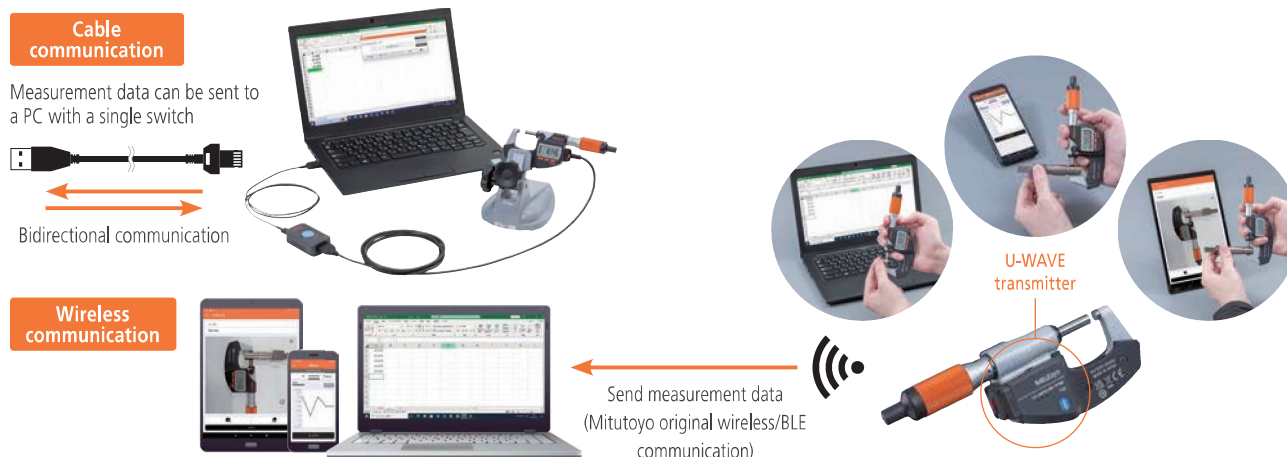
Refer to Bulletin No.E12051 for details.
Measurement Data Management System



In addition to Digimatic d1/d2 (output), support is also provided for Digimatic S1 (input/output) communication. Bidirectional serial communication enables easy setting and management of Digimatic gages. Individual management of Digimatic gages can be performed from a PC, and settings can also be changed. The same settings can also be applied to multiple Digimatic gages.

*An optional cable and measurement data input unit are required for bidirectional serial communication (see page 7).

Please note that S1 communication cannot currently be used with the U-WAVE series. Additionally, USB-ITPAK V3.0 must be installed on the PC being used.



U-WAVE^{fit}

Measurement Data Wireless Communication System

Measurement data from micrometers and calipers with Digimatic output can be wirelessly transferred to PCs, smartphones, tablets and other such devices.

MeasurLink[®] ENABLED

Data Management Software by Mitutoyo

Measurement Data Network System

MeasurLink[®] is a measurement data management system based on databases (SQL Server). You can build a network to manage the measurement results and measuring instruments simply by combining the required functions.

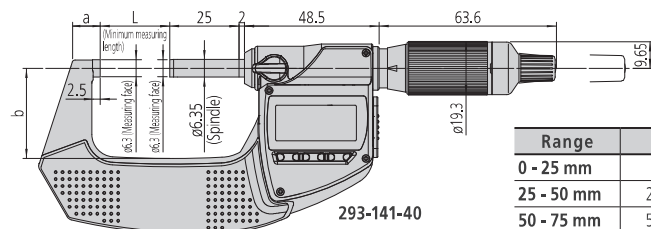
MeasurLink[®] is a registered trademark of Mitutoyo Corporation in Japan and Mitutoyo America Corporation in the United States.

DIGIMATIC S1

Digimatic S1

This is the original Mitutoyo bidirectional serial communication system. In addition to outputting measurement data, it is also possible to perform such operations as setting and controlling the Digimatic gage itself and collecting individual information of Digimatic gages from the connected PC.

■ Dimensions



Unit: mm

Range	L	a	b
0 - 25 mm	0	9	25
25 - 50 mm	25	9.8	32.5
50 - 75 mm	50	12.6	47
75 - 100 mm	75	14	60

■ Specifications

Inch/Metric	Order No.	Range (in)	Resolution	Measuring force* ¹ (N)	Maximum permissible error J_{NPE} (in)	Flatness (in)	Parallelism (in)	Mass (g)
With SPC data output	293-180-40	0 - 1	0.00005 in/ 0.001 mm	7 - 12	±0.00005	0.000012	0.00004	265
	293-181-40	1 - 2					325	
	293-182-40	2 - 3			±0.0001		0.00008	465
	293-183-40	3 - 4					620	
Metric	Order No.	Range (mm)	Resolution (mm)	Measuring force* ¹ (N)	Maximum permissible error J_{NPE} (μm)	Flatness (μm)	Parallelism (μm)	Mass (g)
With SPC data output	293-140-40	0 - 25	0.001	7 - 12	±1	0.3	1	265
	293-141-40	25 - 50					325	
	293-142-40	50 - 75			±2		2	465
	293-143-40	75 - 100					620	

- Degree of protection: IP65 (IEC60529)*2
 - Power supply: One CR2032 lithium metal battery included as standard accessory (for operation check)
 - Battery life: Approx. 2 years under normal conditions
 - Position detection system: Electromagnetic rotary sensor
- *1 Measuring force when using the speeder ratchet (Apply a measuring force in the same condition as for measurement and then set the origin.)

*2 Rustproofing should be applied after use.

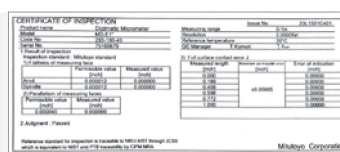


■ Functions

Origin point setting (ABS length measurement system)	The measurement origin can be preset to any value within the display range for convenience in measuring.
Zero setting (INC length measurement system)	The display can be zeroed at any position of the spindle, making comparison measurements easier. Returning to the ABSOLUTE measurement mode is easily accomplished.
Hold	The hold function freezes the current value on the display, making it useful for performing measurements in locations where the display is difficult to see. Also, when the hold function is released, the measurement value from the most recently set zero set position or origin point position is displayed.
Calibration schedule alert function	Supports proper management of the Digimatic gage.
Approach speed warning function	Reduces variation in measurement values and improves reliability of measurements.
Tolerance judgment function	You can judge pass/failure at a glance, which is effective even when handling numerous workpieces.
Calculation function (Ax + B)	Enables calculation and direct reading of correction values for a processing machine, thereby improving the efficiency of processing work.
Key operation lock feature	Locks the ORIGIN (origin point setting) and ZERO (zero setting) functions to prevent the origin point from being accidentally changed.
Auto power ON /OFF	The reading on the LCD disappears if the micrometer is left idle for approx. 20 minutes, but the origin point (preset value) for ABSOLUTE length measurement is retained. Turning the spindle again will restore the reading on the LCD.
Key customization function	Helps to easily recall frequently used functions for improved work efficiency.
Measurement data output function (Digimatic S1)	Bidirectional communication allows setting changes and information management to be easily performed from a PC.
Error message	In the event of an overflow on the LCD or a computing error, an error message appears on the LCD, and the measuring function stops. This prevents continuation of measurement with an erroneous display. Also, when the battery voltage drops to a certain level, the battery depletion indicator appears well before the micrometer becomes unusable.

■ Inspection Certificate attached (Applicable only to 0-25 mm (0-1 in) type and 25-50 mm (1-2 in) type)

- A Certificate of Inspection containing inspection data at the time of shipment is included.



■ Standard accessories

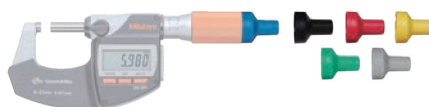
- Reference bar (except for 0-25 mm (0-1 in) models)
- Storage case
- Spanner (301336), 1 piece
- Battery, 1 piece
- User's manual
- Inspection Certificate*

*Inspection Certificate included as standard accessory for sizes 0 to 25 mm (0-1 in) and 25 to 50 mm (1-2 in).

■ Optional Accessories

Code No.	Description (Type)
264-020	USB Input Tool Series USB Keyboard Signal Conversion Type IT-020U
06AGL111	Connection cable (1 m)
06AGL121	Connection cable (2 m)
06AGQ001A	USB Input Tool Direct (2 m)
264-622	U-WAVE-TM (IP67)
264-623	U-WAVE-TM (Buzzer)
264-626	U-WAVE-TMB (IP67)
264-627	U-WAVE-TMB (Buzzer)
02AZF960	Connecting unit for U-WAVE-TM/TMB (IP67)

■ Color speeder sleeve (optional)



Color speeder sleeves in black, red, yellow, green, blue, and gray are available for measuring management.

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

* Standard accessory

Regarding measuring instruments with Inspection Certificate

Regarding measuring instruments with Inspection Certificate
Mitutoyo guarantees product quality as a leading precision measuring instrument
manufacturer and ships measuring instruments with an Inspection Certificate that
includes inspection data so that customers can use them with confidence.