

Digital Micrometer with Coolant-proof Function

# Coolant Proof Micrometer

•Patent pending •Design registration pending

New technology Digimatic micrometers for use in coolant-exposed environments.



**WILLRICH PRECISION  
INSTRUMENT**  
*THINK MEASUREMENT... THINK WILLRICH*

Ph 866-945-5742 email:sales@willrich.com

- Based on new water-proof structural technology, these micrometers provide IP65 protection levels, enabling use in environments exposed to cutting oil, etc.
- Measurement data output function is available with a water-resistant connection cable.
- Oil-resistance materials are used in all plastic components.
- $\pm 0.00005''/\pm 1 \mu\text{m}$  instrumental error (3"/75 mm or less range models)
- Auto power ON/OFF function.
- Certificate of inspection\* is included. (2"/50mm or less range models)

\*It is not the type used to obtain calibration certificates.



Certificate of inspection



## Order No. (with ratchet stop)

Order No.	Range	Order No.	Range
293-230	0-25mm	293-330	0-1"/0-25.4mm
293-231	25-50mm	293-331	1-2"/25.4-50.8mm
293-232	50-75mm	293-332	2-3"/50.8-76.2mm
293-233	75-100mm	293-333	3-4"/76.2-101.6mm
293-240*	0-25mm	293-340*	0-1"/0-25.4mm
293-241*	25-50mm	293-341*	1-2"/25.4-50.8mm
293-242*	50-75mm	293-342*	2-3"/50.8-76.2mm
293-243*	75-100mm	293-343*	3-4"/76.2-101.6mm

\*without data output function

## Order No. (with ratchet thimble)

Order No.	Range	Order No.	Range
293-234	0-25mm	293-334	0-1"/0-25.4mm
293-235	25-50mm	—	—
293-236	50-75mm	—	—
293-237	75-100mm	—	—
293-244*	0-25mm	293-344*	0-1"/0-25.4mm
293-245*	25-50mm	293-345*	1-2"/25.4-50.8mm
293-246*	50-75mm	293-346*	2-3"/50.8-76.2mm
293-247*	75-100mm	293-347*	3-4"/76.2-101.6mm

\*without data output function

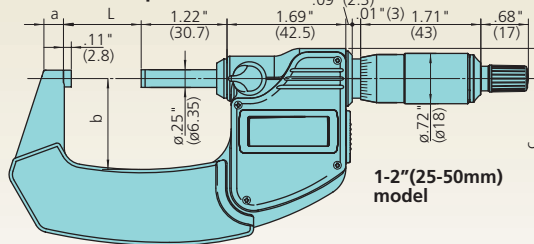
## Order No. (with friction thimble)

Order No.	Range	Order No.	Range
293-238	0-25mm	293-335	0-1"/0-25.4mm
—	—	293-336	1-2"/25.4-50.8mm
293-248*	0-25mm	293-348*	0-1"/0-25.4mm

\*without data output function

## Dimensions

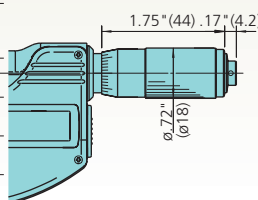
### • With ratchet stop



Unit: inch (mm)

Range	L	a	b	c
Ratchet stop				
0-1" (0-25mm)	0 (0)	.36" (9)	.99" (25)	2.38" (59.8)
1-2" (25-50mm)	.99" (25)	.39" (9.8)	1.27" (32)	2.79" (70.3)
2-3" (50-75mm)	1.99" (50)	.50" (12.6)	1.87" (47)	3.65" (91.9)
3-4" (75-100mm)	2.98" (75)	.57" (14)	2.38" (60)	4.49" (112.9)
Ratchet thimble				
0-1" (0-25mm)	0 (0)	.36" (9)	.99" (25)	2.38" (59.8)
1-2" (25-50mm)	.99" (25)	.39" (9.8)	1.27" (32)	2.79" (70.3)

### • With ratchet thimble



## Specifications

Resolution	.00005"/0.001mm, 0.001mm
Accuracy*1	±.00005"/±1μm, ±.0001"/±2μm (3-4"/75-100mm)
Functions	Origin setting (for ABS length measurements), Zero-setting (for INC measurements), Data hold, Auto power ON/OFF, Measurement data output, Error reporting
Protection level	IP65 (IEC60529), *Anti-corrosion treatment is required after use.
Flatness	.000012"/0.3μm or less
Parallelism	.00005"/1μm or less (0-1"/0-25mm, 1-2"/25-50mm models) .00008"/2μm or less (2-3"/50-75mm, 3-4"/75-100mm models)
Power supply	One button-type silver oxide battery (SR44)
Battery life	About 1.2 years under normal use conditions
Standard accessories	One standard bar (none for 0-1"/0-25mm models), one button-type silver oxide battery (SR44 <b>No. 938882</b> ), one wrench

\*Quantizing error ±1 count is not included.

## Optional accessories

### • Water-resistance connection cable\*2

1-meter cable: **No. 05CZA662**

2-meter cable: **No. 05CZA663**



\*2 This connection cable is dedicated for Coolant Proof Micrometer.

### • DP-1VR Digimatic Mini-Processor

**No. 264-504-5A**

(Data processing device for quality control applications)



### • Keyboard Input Tool

**No. 264-005**

### • RS232C Input Tool

**No. 264-007**

### • USB Input Tool

(Measurement data input device with USB keyboard signals)

**No. 264-012**





**Note:**

All our product details, in particular the illustrations, drawings, dimension and performance details and other technical specifications contained in this publication are to be considered to be approximate average values. To this extent, we reserve the right to make changes in design, technical data, dimensions and weight. Our specified standards, similar technical rules and technical specifications, descriptions and illustrations of the products are correct at the time of printing. The current version of our general terms and conditions also apply. Only offers which we have submitted can be considered to be definitive.

Coordinate Measuring Machines

Vision Measuring Systems

Surface, Form and Contour  
Measurement

Optical Measuring

Sensor Systems

Hardness Measuring

Digital Scale and DRO Systems

Small Tool Instruments and  
Data Management

**Mitutoyo America Corporation**

[www.mitutoyo.com](http://www.mitutoyo.com)

**M<sup>3</sup> Solution Center**

**Michigan**  
(734) 459-2810

**Massachusetts**  
(978) 692-8765

**Illinois**  
(630) 978-5385

**Indiana**  
(317) 577-6070

**California**  
(626) 961-9661

**No. Carolina**  
(704) 875-8332

**Mitutoyo**

**Precision is our Profession**