

# Inside Micrometers

For easy and accurate measurement of inside size and diameter

## Tubular Inside Micrometers SERIES 137, 337 — Extension Rod Type

**MeasurLink<sup>1</sup> ENABLED**  
Data Management Software by Mitutoyo

- Wide range of inside measurements possible by combining extension rods and anvils with the micrometer head.
- Two types of measuring faces are available; with or without carbide tip. (Order No. 337-101/301/302/102/303/304 only available with carbide tip)
- The sleeve is rotated to adjust the reference point adjustment when setting to a length standard.
- An inside length standard is required for accurately setting the micrometer.
- Order No. 337-101/301/302/102/303/304 features:
  - IP65 (water-proof) protection level that enables use in the presence of cutting fluid.
  - A large-character LCD display.
  - Storage of 2 preset values for use when setting to an inside length standard.
  - A function lock that prevents accidental changing of the reference setting during measurement.



### SPECIFICATIONS

Metric						
Order No.	Range (mm)	Resolution (mm)	Micrometer head stroke (mm)	Extension rods Qty	Extension rods Size (mm)	Display unit (mm)
Digimatic (LCD)						
337-101	200 - 225	0.001	25	—	—	200 - 225
337-301	200 - 1000			6	25, 50, 100 (2 pcs.), 200, 300	
337-302	200 - 1500			7	25, 50, 100, 200, 300 (3 pcs.)	

Metric						
Order No.	Range (mm)	Graduation (mm)	Micrometer head stroke (mm)	Extension rods Qty	Extension rods Size (mm)	Main unit (mm)
Analog						
137-201	50 - 150	0.01	13	3	13, 25, 50	50 - 63
137-202	50 - 300			5	13, 25, 50 (2 pcs.), 100	
137-203	50 - 500			6	13, 25, 50 (2 pcs.), 100, 200	
137-204	50 - 1000			8	13, 25, 50 (2 pcs.), 100, 200 (2 pcs.), 300	
137-205	50 - 1500			10	13, 25, 50 (2 pcs.), 100, 200 (3 pcs.), 300 (2 pcs.)	

Metric						
Order No.	Range (mm)	Graduation (mm)	Micrometer head stroke (mm)	Extension rods Qty	Extension rods Size (mm)	Main unit (mm)
Analog (With carbide measuring face)						
137-206	50 - 150	0.01	13	3	13, 25, 50	50 - 63
137-207	50 - 300			5	13, 25, 50 (2 pcs.), 100	
137-208	50 - 500			6	13, 25, 50 (2 pcs.), 100, 200	
137-209	50 - 1000			8	13, 25, 50 (2 pcs.), 100, 200 (2 pcs.), 300	
137-210	50 - 1500			10	13, 25, 50 (2 pcs.), 100, 200 (3 pcs.), 300 (2 pcs.)	

Inch/Metric						
Order No.	Range (in)	Resolution	Micrometer head stroke (in)	Extension rods Qty	Extension rods Size (in)	Display unit (in)
Digimatic (LCD)						
337-102	8 - 9	0.0001 in/ 0.001 mm	1	—	—	8 - 9
337-303	8 - 40			6	1, 2, 4 (2 pcs.), 8, 12	
337-304	8 - 60			7	1, 2, 4, 8, 12 (3 pcs.)	

Inch						
Order No.	Range (in)	Graduation (in)	Micrometer head stroke (in)	Extension rods Qty	Extension rods Size (in)	Main unit (in)
Analog						
137-211	2 - 6	0.001	0.5	3	0.5, 1, 2	2 - 2.5
137-212	2 - 12			5	0.5, 1, 2 (2 pcs.), 4	
137-213	2 - 20			6	0.5, 1, 2 (2 pcs.), 4, 8	
137-214	2 - 40			8	0.5, 1, 2 (2 pcs.), 4, 8 (2 pcs.), 12	
137-215	2 - 60			10	0.5, 1, 2 (2 pcs.), 4, 8 (3 pcs.), 12 (2 pcs.)	

Inch						
Order No.	Range (in)	Graduation (in)	Micrometer head stroke (in)	Extension rods Qty	Extension rods Size (in)	Main unit (in)
Analog (With carbide measuring face)						
137-216	2 - 6	0.001	0.5	3	0.5, 1, 2	2 - 2.5
137-217	2 - 12			5	0.5, 1, 2 (2 pcs.), 4	
137-218	2 - 20			6	0.5, 1, 2 (2 pcs.), 4, 8	
137-219	2 - 40			8	0.5, 1, 2 (2 pcs.), 4, 8 (2 pcs.), 12	
137-220	2 - 60			10	0.5, 1, 2 (2 pcs.), 4, 8 (3 pcs.), 12 (2 pcs.)	

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Products equipped with the measurement data output function can be connected to the measurement data network system MeasurLink (refer to page A-5 for details).



These marks indicate that a product has successfully passed IP65-level testing, which is carried out by the independent German certification organization TÜV Rheinland.



### IP Codes

**Level 6:** Dust-proof.

No ingress of dust allowed.

**Level 5:** Protected against water jets.

Water projected in jets against the enclosure from any direction shall have no harmful effects.

### Technical Data

• Spindle feed error: 3 μm/0.00015 in

Note: "Spindle feed error" refers to the difference between the maximum and minimum indication error values within the measuring range of the micrometer head



### Functions

(for 337-101/301/302/102/303/304)

- Zero-setting
- Origin restoration
- Data hold
- 2-point Preset
- Function lock
- Automatic power ON/OFF
- Error alarm
- Data output

### Technical Data

- Battery and Scale Type (for 337-101/301/302/102/303/304) SR44 (1 pc.), **938882**, for initial operational checks (standard accessory)
- Battery life: Approx. 1.2 years under normal use
- Scale type: Electromagnetic induction-type rotary encoder

### Optional Accessories

Refer to page A-27 for details.

- Connecting cables with **IT/DP/MUX**, etc.
  - 1 m: **05CZA662**
  - 2 m: **05CZA663**
- **USB** Input Tool Direct (2 m): **06AFM380B**
- Connecting cables for **U-WAVE-T**
  - For standard (160 mm): **02AZD790B**
  - For foot switch: **02AZE140B**

### Technical Data

- Spindle feed error 3 μm/0.00015 in
- Note: "Spindle feed error" refers to the difference between the maximum and minimum indication error values within the specification range of the micrometer head

## Tubular Inside Micrometers SERIES 137 — Extension Rod Type (main unit)

- Micrometer head for Extension Rod Type inside micrometer.
- The sleeve is rotated to adjust the reference point adjustment when setting to a length standard.
- Optional Setting Rings and Gauge Block Accessory Sets are available as reference gages for datum adjustment. (Refer to pages C-47 and E-17 to E-20 for details)



137-011

### SPECIFICATIONS

Metric			
Order No.	Range (mm)	Graduation (mm)	Micrometer head stroke (mm)
137-011	50 - 63	0.01	13
Carbide-tipped 137-013			
Inch			
Order No.	Range (in)	Graduation (in)	Micrometer head stroke (in)
137-012	2 - 2.5	0.001	0.5
Carbide-tipped 137-014			

### DIMENSIONS

