

Inside Micrometers

For easy and accurate measurement of inside diameters

Tubular Inside Micrometers SERIES 137, 337 — Extension Rod Type

- 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. (No. 337-101/301/302/102/303/304 only available with carbide tip.)
- The sleeve is rotated to adjust the index line position 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.
 - An output port for measurement data that enables inclusion in a statistical process control or networked measurement system. Refer to page A-3 for details.
 - Ability to use Interface Input Tools that enable conversion of measurement data to keyboard signals that are then directly input to cells in off-the-shelf spreadsheet software such as Excel. Refer to page A-5 for details.



337-301



137-205

SPECIFICATIONS

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

Metric						
Order No.	Range	Graduation	Micrometer head stroke	Extension rods		Main unit
				Qty	Size	
Analog						
137-201	50 - 150mm	0.01mm	13mm	3	13, 25, 50mm	50 - 63mm
137-202	50 - 300mm			5	13, 25, 50 (2 pcs.), 100mm	
137-203	50 - 500mm			6	13, 25, 50 (2 pcs.), 100, 200mm	
137-204	50 - 1000mm			8	13, 25, 50 (2 pcs.), 100, 200 (2 pcs.), 300 mm	
137-205	50 - 1500mm			10	13, 25, 50 (2 pcs.), 100, 200 (3 pcs.), 300 (2 pcs.)mm	
Analog (With carbide measuring face)						
137-206	50 - 150mm	0.01mm	13mm	3	13, 25, 50mm	50 - 63mm
137-207	50 - 300mm			5	13, 25, 50 (2 pcs.), 100mm	
137-208	50 - 500mm			6	13, 25, 50 (2 pcs.), 100, 200mm	
137-209	50 - 1000mm			8	13, 25, 50 (2 pcs.), 100, 200 (2 pcs.), 300 mm	
137-210	50 - 1500mm			10	13, 25, 50 (2 pcs.), 100, 200 (3 pcs.), 300 (2 pcs.)mm	

Inch/Metric						
Order No.	Range	Resolution	Micrometer head stroke	Extension rods		Display unit
				Qty	Size (inch)	
Digimatic (LCD)						
337-102	8" - 9"	.0001"/0.001mm	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	Graduation	Micrometer head stroke	Extension rods		Main unit
				Qty	Size (inch)	
Analog						
137-211	2" - 6"	.001"	.5"	3	.5", 1", 2"	2 - 2.5"
137-212	2" - 12"			5	.5", 1", 2" (2 pcs.), 4"	
137-213	2" - 20"			6	.5", 1", 2" (2 pcs.), 4", 8"	
137-214	2" - 40"			8	.5", 1", 2" (2 pcs.), 4", 8" (2 pcs.), 12"	
137-215	2" - 60"			10	.5", 1", 2" (2 pcs.), 4", 8" (3 pcs.), 12" (2 pcs.)	
Analog (With carbide measuring face)						
137-216	2" - 6"	.001"	.5"	3	.5", 1", 2"	2 - 2.5"
137-217	2" - 12"			5	.5", 1", 2" (2 pcs.), 4"	
137-218	2" - 20"			6	.5", 1", 2" (2 pcs.), 4", 8"	
137-219	2" - 40"			8	.5", 1", 2" (2 pcs.), 4", 8" (2 pcs.), 12"	
137-220	2" - 60"			10	.5", 1", 2" (2 pcs.), 4", 8" (3 pcs.), 12" (2 pcs.)	



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



(Refer to page X for details.)

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

Accuracy
±(3 + number of rods + maximum measurement length/50) μm (fraction rounded up)
Excluding quantizing error (only for Digimatic)



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

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-21 for details.
- Connecting cables with **IT/DP/MUX**, etc.
 - 1m: **05CZA662**
 - 2m: **05CZA663**
- USB Input Tool Direct** (2m): **06ADV380B**
- Connecting cables for **U-WAVE-T**
 - For standard (160mm): **02AZD790B**
 - For foot switch: **02AZE140B**