

# Micrometer

The origin of Mitutoyo's trustworthy brand of small tool instruments

## Disk Micrometers SERIES 369, 227, 169 — Non-Rotating Spindle Type

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

- Measures "root tangent length" of spur gears and helical gears.
- Determination of the root tangent length: refer to "Quick Guide to Precision Measuring Instruments".
- Non-rotating spindle type.
- Measurable range of gear pitch: 0.5 to 6 module (**series 227**: 0.4 to 3 module).
- Equipped with Ratchet Stop for constant measuring force.
- Supplied with a setting standard (except for 0-25 mm/0-1 in measuring range).



### SPECIFICATIONS

Metric								
	Order No.	Range (mm)	Resolution (mm)	Accuracy* (μm)	Anvil dia. (mm)	Flatness (μm)	Parallelism (μm)	Measuring force (N)
Digimatic (LCD)	369-250-30	0 - 25	0.001	±4	20	1	4	—
	369-251-30	25 - 50					6	
	369-252-30	50 - 75		±6			4	
	369-253-30	75 - 100					3	
Quickmike type (LCD)	369-411-20	0 - 30	±4	14.3	3	0.5 - 2.5		
	369-412-20	25 - 55				2 - 10		
Quickmike type adjustable measuring force (LCD)	227-221-20	0 - 15	±4	14.3	3	0.5 - 2.5		
	227-223-20	0 - 10				2 - 10		

\* Excluding quantizing error of ±1 count

Metric								
	Order No.	Range (mm)	Graduation (mm)	Accuracy (μm)	Anvil dia. (mm)	Flatness (μm)	Parallelism (μm)	Measuring force
Analog	169-201	0 - 25	0.01	±4	20	1	4	—
	169-202	25 - 50					6	
	169-205	50 - 75		±6			4	
	169-207	75 - 100					6	

Inch / Metric								
	Order No.	Range (in)	Resolution	Accuracy* (in)	Anvil dia. (in)	Flatness (in)	Parallelism (in)	Measuring force
Digimatic (LCD)	369-350-30	0 - 1	0.00005 in/ 0.001 mm	±0.0002	0.787	0.00004	0.0002	—
	369-351-30	1 - 2					0.0003	
	369-352-30	2 - 3		±0.0003			0.0003	
	369-353-30	3 - 4					0.0002	
Quickmike type (LCD)	369-421-20	0 - 1.2	±0.0002	0.787	0.00004	0.0002		
	369-422-20	1 - 2.2				0.0002		

\* Excluding quantizing error of ±1 count

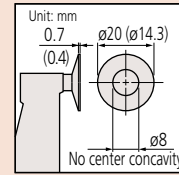
Inch							
	Order No.	Range (in)	Graduation (in)	Accuracy (in)	Anvil dia. (in)	Flatness (in)	Parallelism (in)
Analog	169-203	0 - 1	0.001	±0.0002	0.787	0.00004	0.0002
	169-204	1 - 2					0.0003
	169-206	2 - 3		±0.0003			0.0003
	169-208	3 - 4					0.0003

Note 1: For functional details of **series 369** refer to page B-8. Please note that these models are not water-proof.  
Note 2: Root tangent length measurement is not available for some types of gears.

MeasurLink<sup>®</sup> ENABLED  
Data Management Software by Mitutoyo

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).

### Anvil



( ): Adjustable measuring force type

### Technical Data

- Battery for **series 369** and **227 SR44** (1 pc.), **938882**, for initial operational checks (standard accessory)
- Battery life: Approx. 2.4 years under normal use (for **series 369-2XX, 3XX**)  
Approx. 5 year under normal use (for **series 369-4XX**)  
Approx. 5 years under normal use (for **series 227-2XX**)  
Approx. 18,000 hours in continuous use
- Length standard: Electromagnetic rotary sensor (for **series 369-2XX, 3XX**)  
Electrostatic capacity absolute sensor (for **series 369-4XX, 2XX**)
- Standard accessories: Reference bar, 1 pc. (except for measuring range 0-10 mm/0-15 mm/0-25 mm/0-30 mm (0-1/0-1.2 in) models)  
Spanner (**301336**), 1 pc. (for **series 169-2XX, 369-2XX, 3XX**)  
Screwdriver (**210183**), 1 pc. (for **series 227-2XX**)

### Optional Accessories

- Connecting cables for **369, 227 Series**  
1 m: **05CZA662**  
2 m: **05CZA663**
- USB Input Tool Direct  
**USB-ITN-B** (2 m): **06AFM380B**
- **U-WAVE-T** dedicated connection cable 160 mm: **02AZD790B**  
For foot switch: **02AZE140B**  
Refer to page A-25 for details.

### Wireless Data Output U-WAVE™

- **U-WAVE-TM 264-622** (IP67 type)  
**264-623** (Buzzer type)
- Connecting unit for **U-WAVE-TM 02AZF310** (IP67/buzzer type common specification)  
Refer to page A-15 for details.  
Note: Only **series 369-2XX, 3XX** can be attached.



### Quickmike

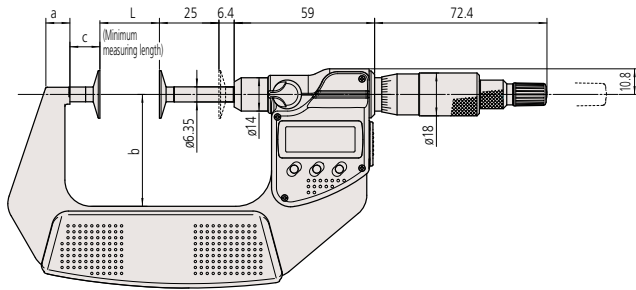
- Provides a speedy spindle feed of 10 mm per thimble rotation, which enables widely differently sized features to be measured quickly.

### Quickmike Type with Adjustable Measuring Force

- Digimatic micrometer dedicated to applications requiring a constant/low measuring force such as measuring wire, paper, and plastic/rubber parts.

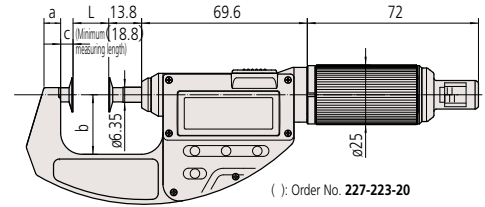
## DIMENSIONS

Digimatic models up to 75 mm

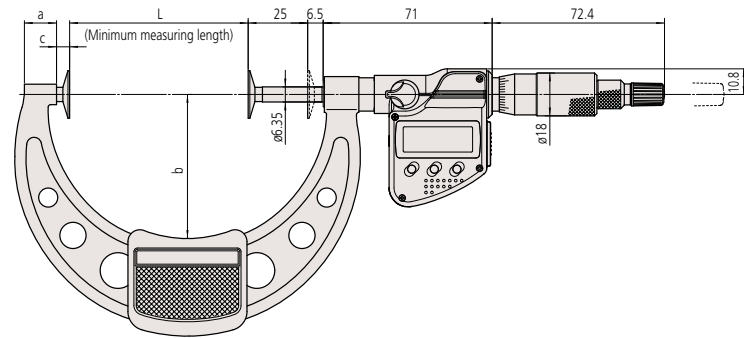


Quickmike adjustable measuring force type

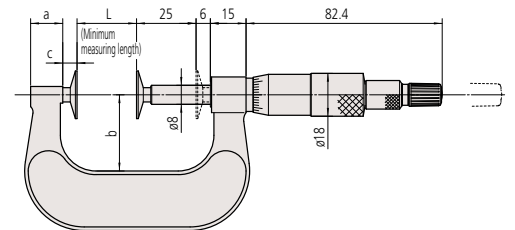
Unit: mm



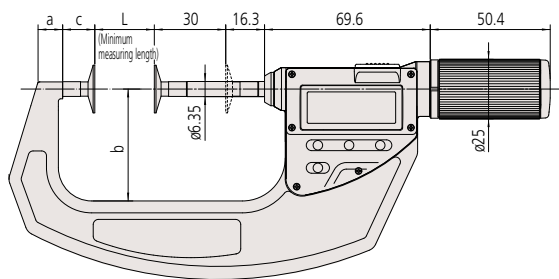
Digimatic models over 75 mm



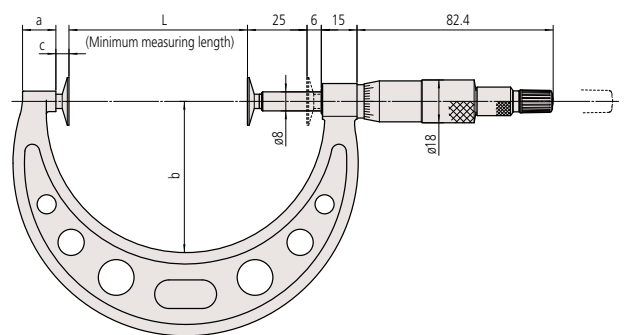
Analog models up to 50 mm



Quickmike type



Analog models over 50 mm



Digimatic models

Range (mm)	L	a	b	c
0 - 25	0	7	32	12.9
25 - 50	25	9.8	47	
50 - 75	50	11.2	60	5.5
75 - 100	75	13.5		

Analog models

Range (mm)	L	a	b	c
0 - 25	0	13.8	25	5.7
25 - 50	25		32	
50 - 75	50	12	49	5.5
75 - 100	75	14	63	

Quickmike adjustable measuring force type

Range (mm)	L	a	b	c
0 - 15	0	6.2	25	5.2
0 - 10	0			

Quickmike type

Range (mm)	L	a	b	c
0 - 30	0	8.5	36	13.5
25 - 55	25	10.3	47	