

Micrometer

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

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

MeasurLink[®] 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" on page B-68.
- 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 to 25 mm/0 to 1 in measuring range).



SPECIFICATIONS

Metric								
	Order No.	Range (mm)	Resolution (mm)	Anvil dia. (mm)	Maximum permissible error J_{MPE} (μ m)	Flatness (μ m)	Parallelism (μ m)	Measuring force (N)
Digimatic (LCD)	369-250-30	0 - 25	0.001	20	±4	1	4	3 - 8
	369-251-30	25 - 50					±6	
	369-252-30	50 - 75			±4			
	369-253-30	75 - 100					3	
Quickmike type (LCD)	369-411-20	0 - 30	14.3	±4	1	4	0.5 - 2.5	
	369-412-20	25 - 55				3	2 - 10	
Quickmike type adjustable measuring force (LCD)	227-221-20	0 - 15	14.3	±4	1	3	3	0.5 - 2.5
	227-223-20	0 - 10					3	2 - 10

Metric								
	Order No.	Range (mm)	Graduation (mm)	Anvil dia. (mm)	Maximum permissible error J_{MPE} (μ m)	Flatness (μ m)	Parallelism (μ m)	Measuring force (N)
Analog	169-201-10	0 - 25	0.01	20	±4	1	4	3 - 8
	169-202-10	25 - 50					±6	
	169-205-10	50 - 75			±4			
	169-207-10	75 - 100					3	

Inch / Metric								
	Order No.	Range (in)	Resolution	Anvil dia. (in)	Maximum permissible error J_{MPE} (in)	Flatness (in)	Parallelism (in)	Measuring force (N)
Digimatic (LCD)	369-350-30	0 - 1	0.00005 in/ 0.001 mm	0.787	±0.0002	0.00004	0.0002	3 - 8
	369-351-30	1 - 2					±0.0003	
	369-352-30	2 - 3			±0.0002			
	369-353-30	3 - 4					3	
Quickmike type (LCD)	369-421-20	0 - 1.2	0.001 mm	0.787	±0.0002	0.00004	0.0002	3 - 8
	369-422-20	1 - 2.2					3	

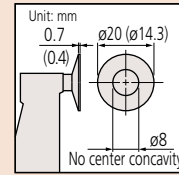
Inch								
	Order No.	Range (in)	Graduation (in)	Anvil dia. (in)	Maximum permissible error J_{MPE} (in)	Flatness (in)	Parallelism (in)	Measuring force (N)
Analog	169-203-10	0 - 1	0.001	0.787	±0.0002	0.00004	0.0002	3 - 8
	169-204-10	1 - 2					±0.0003	
	169-206-10	2 - 3			±0.0002			
	169-208-10	3 - 4					3	

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[®] 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-25 for details).

Anvil



() : Adjustable measuring force type and series 227

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 **369-2XX, 3XX**)
Approx. 5 year under normal use (for **369-4XX**)
Approx. 5 years under normal use (for **227-2XX**)
- Length standard: Electromagnetic rotary sensor (for **369-2XX, 3XX**)
Electrostatic capacity absolute sensor (for **369-4XX, 2XX**)
- Standard accessories: Reference bar, 1 pc. (except for measuring range 0 to 10 mm/0 to 15 mm/0 to 25 mm/0 to 30 mm (0 to 1/0 to 1.2 in) models)
Spanner (**301336**), 1 pc. (for **169-2XX, 369-2XX, 3XX**)
Screwdriver (**210183**), 1 pc. (for **227-2XX**)

Optional Accessories

- Connecting cables for **series 369, 227**
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-21 for details.

Wireless Data Output* U-WAVE™

- **U-WAVE-TM 264-622** (IP67 type)
264-623 (Buzzer type)
- **U-WAVE-TMB** Transmitter
Mitutoyo Bluetooth[®] U-WAVE 264-626 (IP67 type)
264-627 (Buzzer type)
Refer to page A-10 for details.
- Connecting unit for **U-WAVE-TM/TMB**
02AZF310 (IP67/buzzer type common specification)
Refer to pages A-10 and A-12 for details.
* Only **369-2XX, 3XX** can be attached.



Quickmike

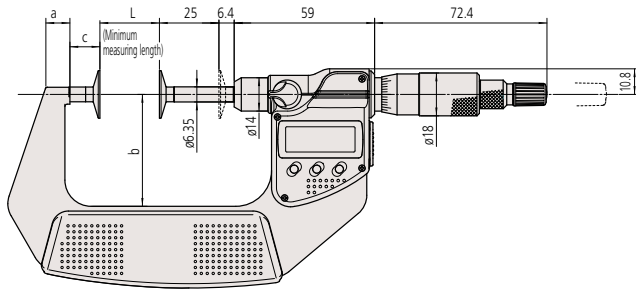
- Provides a speedy spindle feed of 10 mm per thimble rotation, which enables widely differently sized features to be measured quickly.

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.

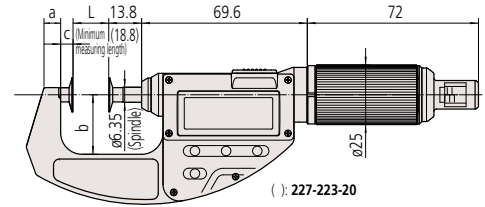
DIMENSIONS

Digimatic models up to 75 mm

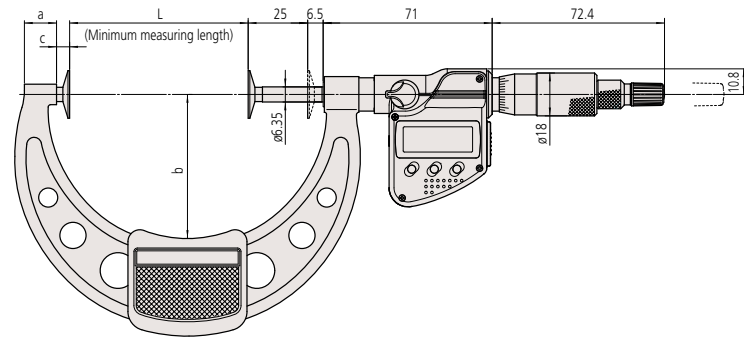


Quickmike adjustable measuring force type

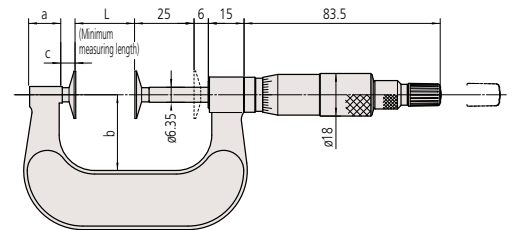
Unit: mm



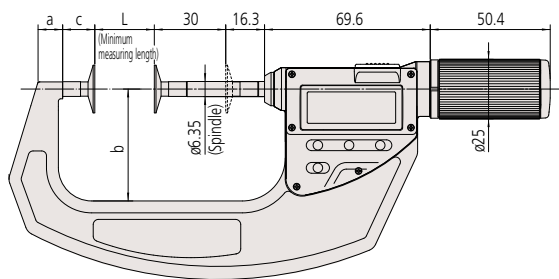
Digimatic models over 75 mm



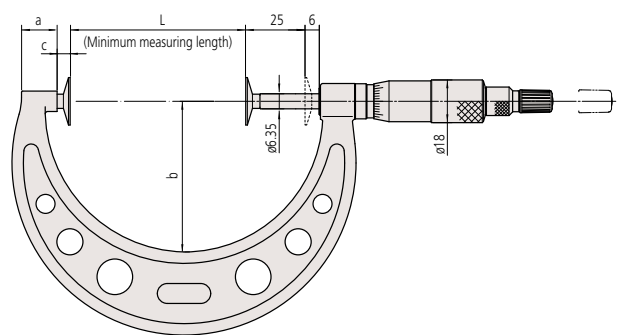
Analog models up to 50 mm



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	