

Micrometer

Disk Micrometers
SERIES 369 — Non-Rotating Spindle Type

- Can be used for making root tangent measurements on spur gears and helical gears.
- Determination of the root tangent length: refer to "Quick Guide to Precision Measuring Instruments" on page 02-80.
- Non-rotating spindle eliminates torque on workpiece.
- Measurable range of gear pitch: 0.5 to 6 module.
- Equipped with Ratchet Stop for constant measuring force.



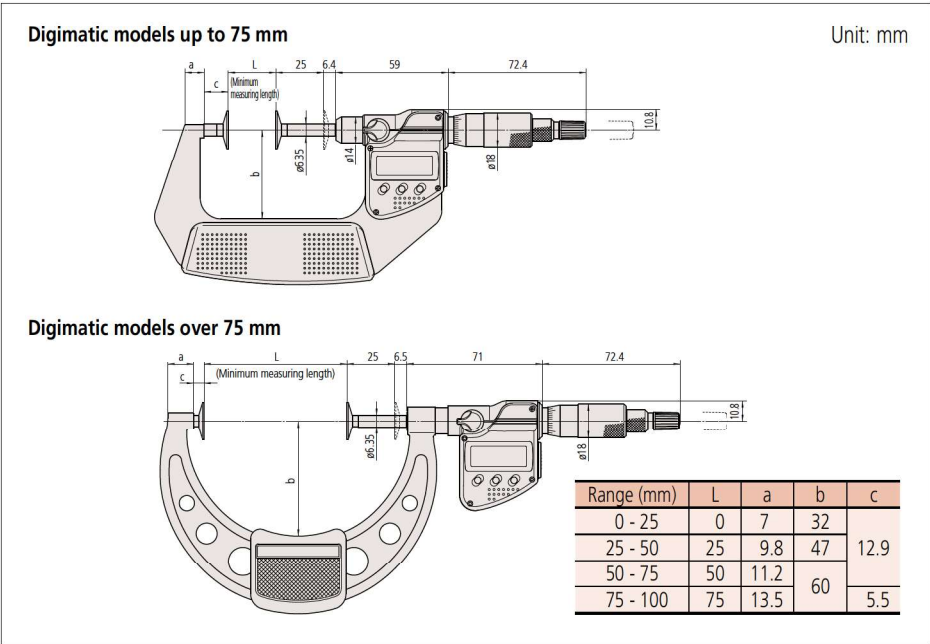
SPECIFICATIONS

Metric							
Code No.	Range (mm)	Resolution (mm)	Anvil dia. (mm)	Maximum permissible error J_{MPE} (μm)	Flatness (μm)	Parallelism (μm)	Measuring force (N)
With SPC data output							
369-250-30	0 - 25	0.001	ø20	±4	1	4	3 - 8
369-251-30	25 - 50			±6		6	
369-252-30	50 - 75						
369-253-30	75 - 100						
Inch / Metric							
Code No.	Range (in)	Resolution	Anvil dia. (in)	Maximum permissible error J_{MPE} (in)	Flatness (in)	Parallelism (in)	Measuring force (N)
With SPC data output							
369-350-30	0 - 1	0.00005 in/ 0.001 mm	ø0.787	±0.0002	0.00004	0.0002	3 - 8
369-351-30	1 - 2			±0.0003		0.0003	
369-352-30	2 - 3						
369-353-30	3 - 4						

- Power source: SR44 battery (1 pc.), **938882** included as standard (for operational checks)
- Battery life: Approx. 2.4 years under normal use
- Position detection method: Electromagnetic rotary sensor
- Standard accessories: Setting standard, 1 pc. (except for measuring range 0 to 25 mm (0 to 1 in) models)
Spanner (**301336**), 1 pc.

Note 1: For functional details, refer to page 02-7. Please note that these models are not water-proof.
Note 2: Root tangent length measurement is not available for some types of gears.

DIMENSIONS



Measurement example



Optional Accessories

Code No.	Type	Description
264-020	—	USB Input Tool Series USB Keyboard Signal Conversion Type IT-020U
05CZA662	B	Connection cable (1 m)
05CZA663	B	Connection cable (2 m)
06AFM380B	B	USB Input Tool Direct (2 m)
02AZD730G	IP67	U-WAVE-T
02AZD880G	Buzzer	U-WAVE-T
02AZE200	—	U-WAVE-T mounting bracket
02AZD790B	B	Connection cable for U-WAVE-T (160 mm)
02AZE140B	B	Connection cable for U-WAVE-T For foot switch
264-622	IP67	U-WAVE-TM
264-623	Buzzer	U-WAVE-TM
264-626	IP67	U-WAVE-TMB
264-627	Buzzer	U-WAVE-TMB
02AZF310	IP67	Connecting unit for U-WAVE-TM/TMB

Disk Micrometers

SERIES 369, 227 — Non-Rotating Spindle Type

- Can be used for making root tangent measurements on spur gears and helical gears.
- Determination of the root tangent length: refer to "Quick Guide to Precision Measuring Instruments" on page 02-80.
- Non-rotating spindle eliminates torque on workpiece.
- 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.



Quickmike type (LCD)
369-411-20

SPECIFICATIONS

Metric								
	Code No.	Range (mm)	Resolution (mm)	Anvil dia. (mm)	Maximum permissible error J_{MPE} (μm)	Flatness (μm)	Parallelism (μm)	Measuring force (N)
Quickmike type (LCD)	369-411-20	0 - 30	0.001	ø20	±4	1	4	3 - 8
	369-412-20	25 - 55						
Quickmike type adjustable measuring force (LCD)	227-221-20	0 - 15		ø14.3			3	0.5 - 2.5
	227-223-20	0 - 10						2 - 10

Inch / Metric								
	Code No.	Range (in)	Resolution	Anvil dia. (in)	Maximum permissible error J_{MPE} (in)	Flatness (in)	Parallelism (in)	Measuring force (N)
Quickmike type (LCD)	369-421-20	0 - 1.2	0.00005 in / 0.001 mm	ø0.787	±0.0002	0.00004	0.0002	3 - 8
	369-422-20	1 - 2.2						

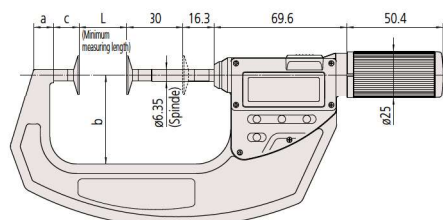
- Power source: SR44 battery (1 pc.), **938882** included as standard (for operational checks)
- Battery life: Approx. 5 years under normal use
- Position detection method: Electrostatic capacity absolute sensor
- Standard accessories: Setting standard, 1 pc. (except for measuring range 0 to 10 mm/0 to 15 mm/0 to 30 mm (0 to 1/0 to 1.2 in) models), Screwdriver (**210183**), 1 pc.

Note: Root tangent length measurement is not available for some types of gears.

DIMENSIONS

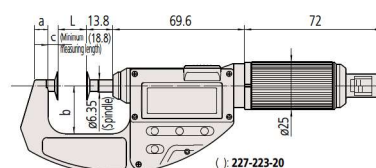
Quickmike type

Unit: mm



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

Quickmike adjustable measuring force type



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

Micrometer

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SERIES 169 — Non-Rotating Spindle Type

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- Determination of the root tangent length: refer to "Quick Guide to Precision Measuring Instruments" on page 02-80.
- Non-rotating spindle eliminates torque on workpiece.
- Measurable range of gear pitch: 0.5 to 6 module.
- Equipped with Ratchet Stop for constant measuring force.



169-201-10

SPECIFICATIONS

Metric										
	Code No.	Range (mm)	Graduation (mm)	Anvil dia. (mm)	Maximum permissible error J_{MPE} (μm)	Flatness (μm)	Parallelism (μm)	Measuring force (N)		
Analog	169-201-10	0 - 25	0.01	ø20	±4	1	4	3 - 8		
	169-202-10	25 - 50								
	169-205-10	50 - 75			±6		6			
	169-207-10	75 - 100								

Inch										
	Code 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	ø0.787	±0.0002	0.00004	0.0002	3 - 8		
	169-204-10	1 - 2								
	169-206-10	2 - 3			±0.0003		0.0003			
	169-208-10	3 - 4								

• Standard accessories: Setting standard, 1 pc. (except for measuring range 0 to 25 mm (0 to 1 in) models)
Spanner (301336), 1 pc.
Note: Root tangent length measurement is not available for some types of gears.

DIMENSIONS

Unit: mm

Diagram showing dimensions for analog models up to 50 mm and over 50 mm. Dimensions include L (Minimum measuring length), 25, 6, 15, 83.5, $\varnothing 6.35$, and $\varnothing 18$.

Diagram showing dimensions for analog models over 50 mm. Dimensions include L (Minimum measuring length), 25, 6, 15, 83.5, $\varnothing 6.35$, and $\varnothing 18$.

Diagram showing dimensions for the center recess: t, $\varnothing e$, and $\varnothing f$.

Range (mm)	L	a	b	c	e	f	t			
0 - 25	0	13.8	25	5.7	20	8	0.7			
25 - 50	25		32							
50 - 75	50	12	49	5.5						
75 - 100	75	14	63							