

Micrometer

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



**WILLRICH PRECISION
INSTRUMENT**
THINK MEASUREMENT... THINK WILLRICH
Ph 866-945-5742 email:sales@willrich.com

Disk Micrometers

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

- 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 0-25mm/0-1" measuring range).



SPECIFICATIONS

Metric								
	Order No.	Range	Resolution	Accuracy*	Anvil dia.	Flatness	Parallelism	Measuring force
Digimatic (LCD)	369-250-30	0 - 25mm	0.001mm	±4μm	ø20	1μm	4μm	—
	369-251-30	25 - 50mm		±6μm			6μm	
	369-252-30	50 - 75mm					6μm	
	369-253-30	75 - 100mm					6μm	
Quickmike type (LCD)	369-411	0 - 30mm	0.001mm	±4μm	ø14.3	1μm	4μm	—
	369-412	25 - 55mm					4μm	
Quickmike type adjustable measuring force (LCD)	227-221	0 - 15mm	0.001mm	±4μm	ø14.3	1μm	3μm	0.5N - 2.5N
	227-223	0 - 10mm					3μm	2N - 10N

* Excluding quantizing error

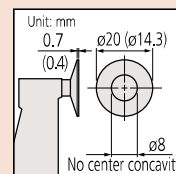
Metric								
	Order No.	Range	Graduation	Accuracy	Anvil dia.	Flatness	Parallelism	Measuring force
Analog	169-201	0 - 25mm	0.01mm	±4μm	ø20	1μm	4μm	—
	169-202	25 - 50mm		±6μm			6μm	
	169-205	50 - 75mm					6μm	
	169-207	75 - 100mm					6μm	

Inch/Metric								
	Order No.	Range	Resolution	Accuracy*	Anvil dia.	Flatness	Parallelism	Measuring force
Digimatic (LCD)	369-350-30	0 - 1"	.00005" / 0.001mm	±.0002"	ø20	.00004"	.0002"	—
	369-351-30	1" - 2"		±.0003"			.0003"	
	369-352-30	2" - 3"					.0003"	
	369-353-30	3" - 4"					.0003"	
Quickmike type (LCD)	369-421	0 - 1.2"	.001"	±.0002"	ø20	.00004"	.0002"	—
	369-422	1" - 2.2"		±.0003"			.0003"	

* Excluding quantizing error

Inch							
	Order No.	Range	Graduation	Accuracy	Anvil dia.	Flatness	Parallelism
Analog	169-203	0 - 1"	.001"	±.0002"	ø20	.00004"	.0002"
	169-204	1" - 2"		±.0003"			.0003"
	169-206	2" - 3"					
	169-208	3" - 4"					

Anvil



(): Adjustable measuring force type

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. 1 year under normal use

(for series 369-4XX)

Approx. 3 years under normal use

(for series 227-2XX)

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 0-10mm / 0-15mm / 0-25mm

/ 0-30mm (0-1"/0-1.2") models)

Spanner (301336), 1 pc (for series 169-2XX, 369-2XX, 3XX)

Screwdriver (No.210183), 1pc (for series 227-2XX)

Optional accessories

- Connecting cables for 369-250-30 to 369-253-30, 369-350-30 to 369-353-30
1m: **05CZA662**
2m: **05CZA663**

USB Input Tool Direct

USB-ITN-B (2m): **06ADV380B**

- SPC cables for U-WAVE w/ data switch (160mm):

02AZD790B

For foot switch: **02AZE140B**

(Refer to page B-68 for details.)

- SPC cables for Quickmike and micrometers with adjustable measuring force device

937387: SPC cable (1m)*

965013: SPC cable (2m)*

- only for Quickmike and micrometers with adjustable measuring force device

06ADV380E: USB Input Tool Direct with data switch(2m)

02AZD790E: SPC cable for U-WAVE (160mm)

For footswitch: **02AZE140E**



Quickmike

Provides a speedy spindle feed of 10mm 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.



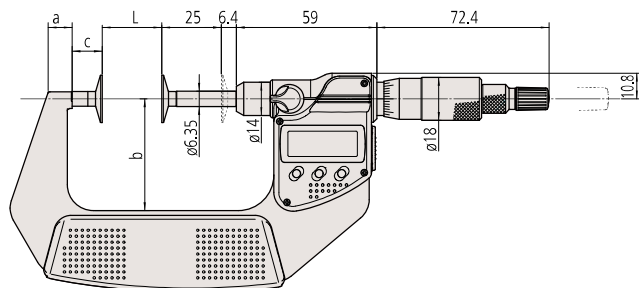
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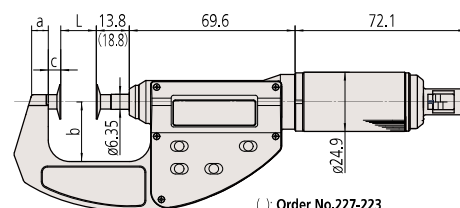
DIMENSIONS

Unit: mm

Digital models up to 75mm

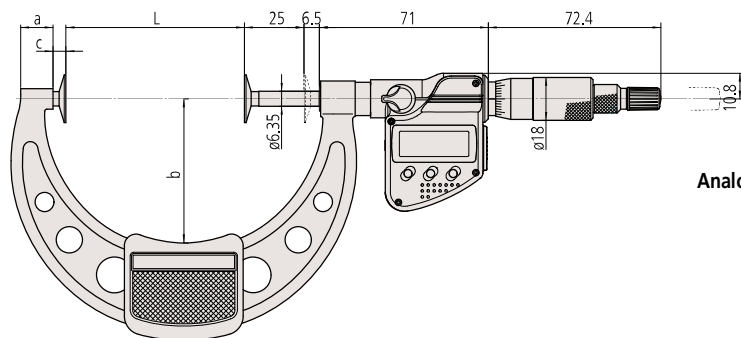


Adjustable measuring force type

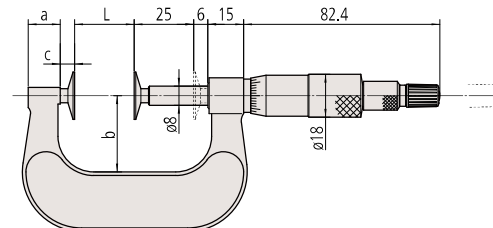


() : Order No.227-223

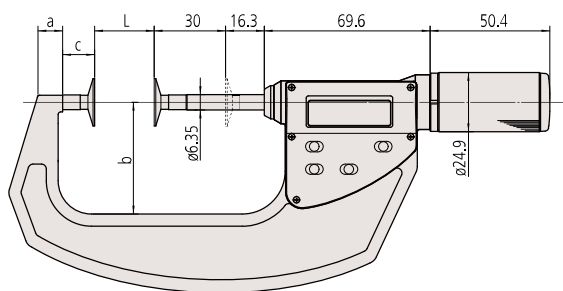
Digital models over 75mm



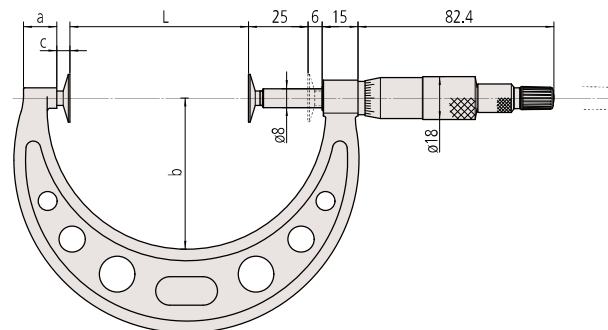
Analog models up to 50mm



Quickmike type



Analog models over 50mm



Digital models

Range	L	a	b	c
0 - 25mm	0	7	32	12.9
25 - 50mm	25	9.8	47	
50 - 75mm	50	11.2	60	5.5
75 - 100mm	75	13.5		
0 - 30mm*	0	8.5	36	13.5
25 - 55mm*	25	10.3	47	

*Quickmike type

Analog models

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