

Micrometer

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

Disk Micrometers SERIES 323, 223, 123

- Measures "root tangent length" of spur gears and helical gears.
- Determination of the root tangent length: refer to "Quick Guide to Precision Measuring Instruments".



SPECIFICATIONS

Metric					
Order No.	Range	Resolution	Accuracy*	Anvil dia.	Measurable module
Digimatic (LCD)					
323-250-30	0 - 25mm		$\pm 4\mu\text{m}$		
323-251-30	25 - 50mm	0.001mm	$\pm 6\mu\text{m}$	$\varnothing 20\text{mm}$	0.5 - 6
323-252-30	50 - 75mm				
323-253-30	75 - 100mm				

* Excluding quantizing error

Metric					
Order No.	Range	Graduation	Accuracy	Anvil dia.	Measurable module
Mechanical counter model					
223-101	0 - 25mm	0.01mm	$\pm 4\mu\text{m}$	$\varnothing 20\text{mm}$	0.5 - 6
223-102	25 - 50mm				
Analog					
123-101	0 - 25mm				
123-113*	25 - 50mm		$\pm 4\mu\text{m}$		
123-102	50 - 75mm				
123-114*	75 - 100mm				
123-103	100 - 125mm				
123-115*	125 - 150mm				
123-104	150 - 175mm				
123-116*	175 - 200mm				
123-105	200 - 225mm				
123-106	225 - 250mm				
123-107	250 - 275mm				
123-108	275 - 300mm				

* The measuring disks have carbide tips.

- Equipped with Ratchet Stop for constant measuring force.
- Supplied with a setting standard (except for 0-25mm/0-1" measuring range).



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



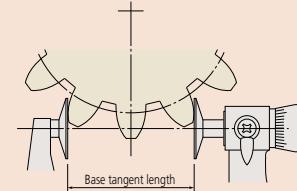
IP Codes (series 323)

- 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

- Flatness: $1\mu\text{m}/0.0004"$ for models up to 100mm/4"
 $1.6\mu\text{m}/0.00063"$ for models over 100mm/4"
Parallelism: 4μm for models up to 50mm
.0002" for models up to 2"
6μm for models up to 100mm
.0003" for models up to 4"
(5+R/75)μm for models over 100mm,
R = max. range (mm)
fraction rounded up

Root tangent length of gear (En)



Battery for series 323

- SR44** (1 pc), **938882**, for initial operational checks (standard accessory)
Battery life: Approx. 2.4 years under normal use (for series 323)
Length standard: Electromagnetic rotary sensor (for series 323)
Standard accessories: Reference bar, 1 pc
(except for measuring range 0-25mm (0-1") models)
Spanner (301336), 1 pc

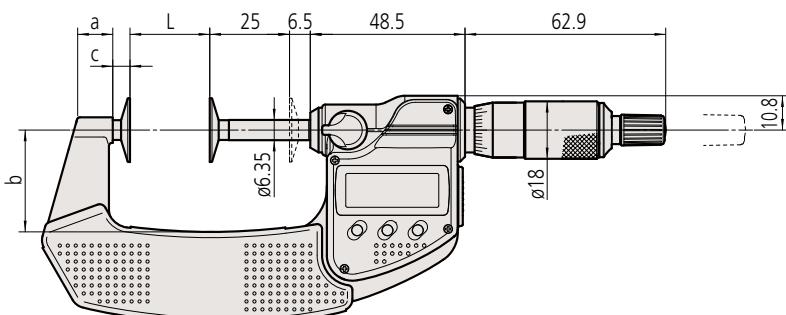
Optional accessories for series 323

- Connecting cables
1m: **05CZA662**
2m: **05CZA663**
USB Input Tool Direct
USB-ITN-B (2m): **06ADV380B**
Connecting cables for **U-WAVE-T**
02AZD790B 160mm
For foot switch: **02AZE140B**
Refer to page B-68 for details.

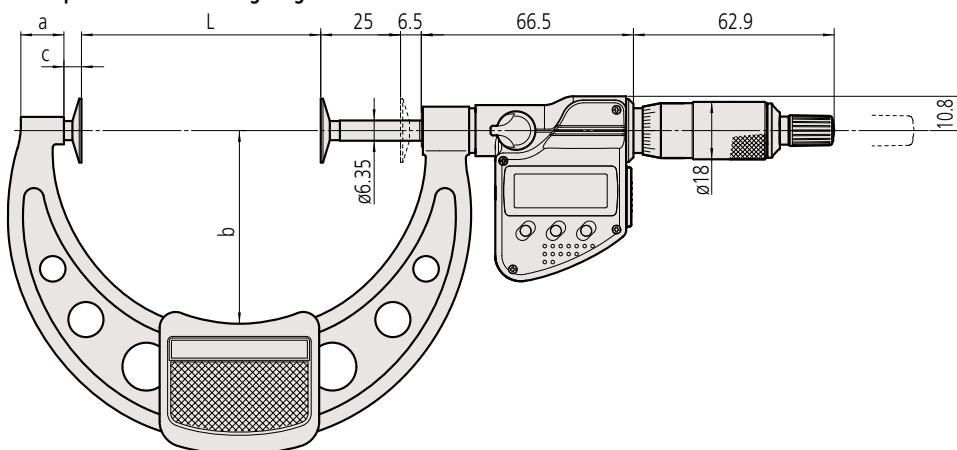
DIMENSIONS

Digital models up to 75mm measuring range

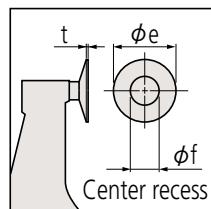
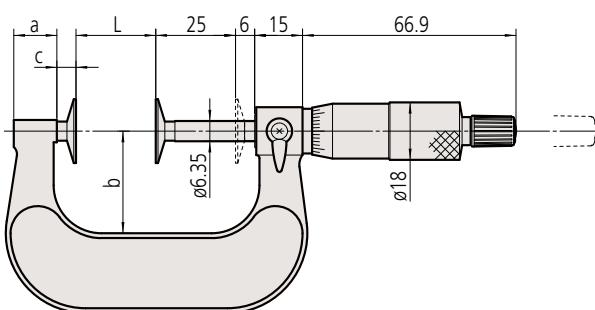
Unit: mm



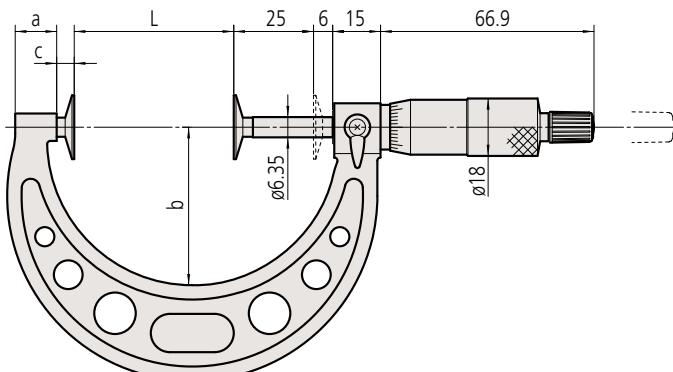
Digital models up to 100mm measuring range



Analog models up to 50mm measuring range



Analog over 50mm measuring range



Range	L	a	b	c	e	f	t
Digimatic (LCD)							
0 - 25mm	0	9.2	25	4.5			
25 - 50mm	25	11	31	5.4			
50 - 75mm	50	12.2	50	5.5			
75 - 100mm	75	14	60	5.5	20	8	0.7
Analog							
0 - 25mm	0	13.8	25	5.7			
25 - 50mm	25	32					
50 - 75mm	50	12	49				
75 - 100mm	75	14	63		5.5		
100 - 125mm	100	12	79				
125 - 150mm	125	15	94				
150 - 175mm	150	16	106				
175 - 200mm	175	15	118				
200 - 225mm	200		130				
225 - 250mm	225		143				
250 - 275mm	250		156				
275 - 300mm	275	15	169				

* Data in () applies to those with carbide-faced disks.