

Micrometer

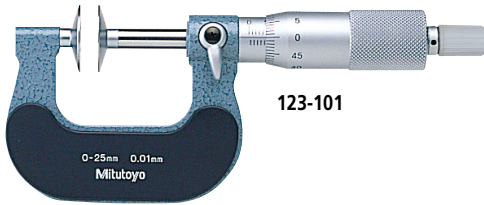
The origin of Mitutoyo's trustworthy brand of small tool instruments

Disk Micrometers SERIES 323, 223, 123

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".

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



123-101



323-250-30



123-103

SPECIFICATIONS

Metric					
Order No.	Range	Resolution	Accuracy*	Anvil dia.	Measurable module
Digimatic (LCD)					
323-250-30	0 - 25 mm	0.001 mm	±4 μm	ø20 mm	0.5 - 6
323-251-30	25 - 50 mm				
323-252-30	50 - 75 mm				
323-253-30	75 - 100 mm				
			±6 μm		

* Excluding quantizing error of ±1 count

Metric					
Order No.	Range	Graduation	Accuracy	Anvil dia.	Measurable module
Mechanical counter model					
223-101	0 - 25 mm	0.01 mm	±4 μm	ø20 mm	0.5 - 6
223-102	25 - 50 mm				
Analog					
123-101	0 - 25 mm	0.01 mm	±4 μm	ø20 mm	0.5 - 6
123-113*					
123-102	25 - 50 mm				
123-114*					
123-103	50 - 75 mm				
123-115*					
123-104	75 - 100 mm				
123-116*					
123-105	100 - 125 mm				
123-106	125 - 150 mm				
123-107	150 - 175 mm				
123-108	175 - 200 mm				
123-109	200 - 225 mm				
123-110	225 - 250 mm				
123-111	250 - 275 mm				
123-112	275 - 300 mm				
			±6 μm		
			±7 μm		
			±8 μm	ø30 mm	0.7 - 11
			±9 μm		

* The measuring disks have carbide tips.

Inch/Metric					
Order No.	Range	Resolution	Accuracy*	Anvil dia.	Measurable module
Digimatic (LCD)					
323-350-30	0-1 in	0.00005 in/ 0.001 mm	±0.0002 in	0.787 in	0.5 - 6
323-351-30	1-2 in				
323-352-30	2-3 in				
323-353-30	3-4 in				
			±0.0003 in		

* Excluding quantizing error of ±1 count

Inch					
Order No.	Range	Graduation	Accuracy	Anvil dia.	Measurable module
Mechanical counter model					
223-125	0-1 in	0.001 in	±0.0002 in	0.787 in	0.5 - 6
Analog					
123-125	0-1 in	0.001 in	±0.0002 in	0.787 in	0.5 - 6
123-126	1-2 in				
123-127	2-3 in				
123-128	3-4 in				
			±0.0003 in		

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-5 for details).



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.

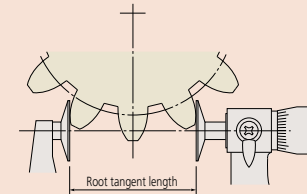
Level 5: Protected against water jets.

Water projected in jets against the enclosure from any direction shall have no harmful effects.

Technical Data

Flatness: 1 μm/0.00004 in for models up to 100 mm/4 in
1.6 μm/0.000063 in for models over 100 mm/4 in
Parallelism: 4 μm for models up to 50 mm
0.0002 in for models up to 2 in
6 μm for models up to 100 mm
0.0003 in for models up to 4 in
(5+R/75) μm for models over 100 mm,
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 0-25 mm (0-1 in) models)

Spanner (301336), 1 pc

Optional Accessories for Series 323

Connecting cables

1 m: **05CZA662**

2 m: **05CZA663**

USB Input Tool Direct

USB-ITN-B (2 m): **06AFM380B**

Wireless data output **U-WAVE** **ifit**

U-WAVE-TM **264-622** (IP67 type)

264-623 (Buzzer type)

Connecting unit for U-WAVE-TM

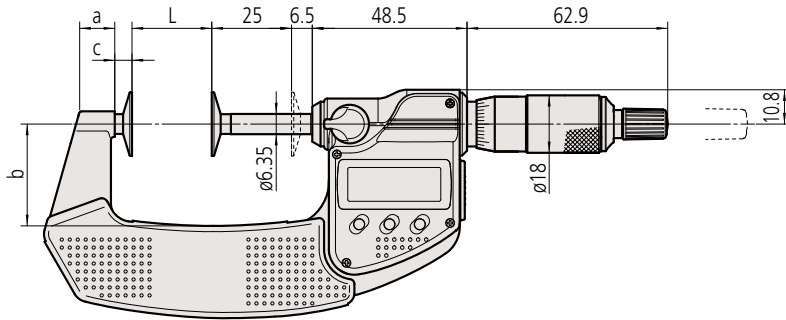
02AZF310 (IP67 type)

Refer to page A-15 for details

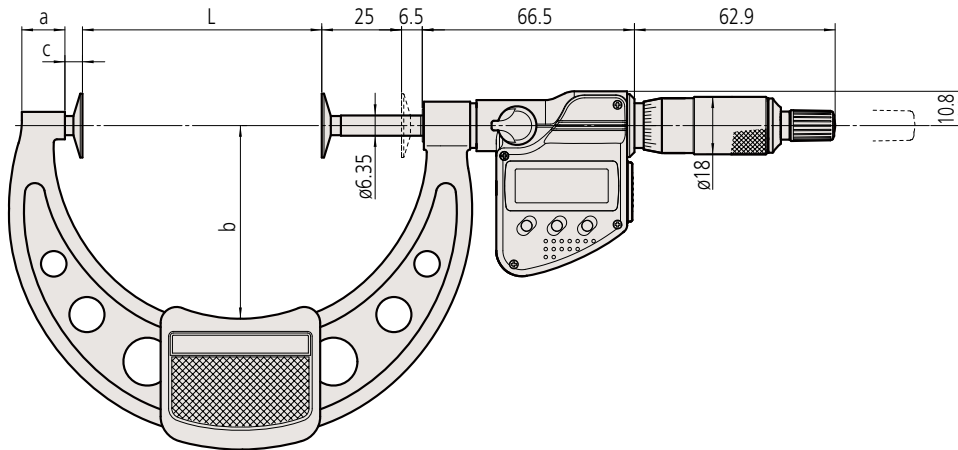
DIMENSIONS

Digital models up to 75 mm measuring range

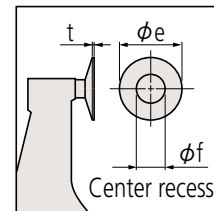
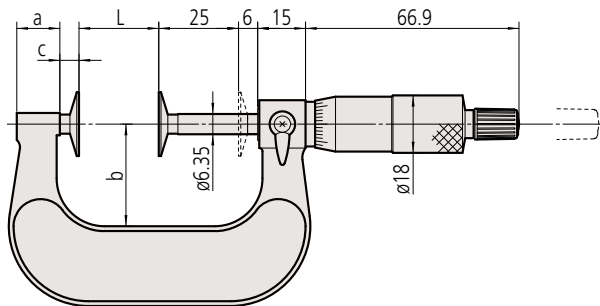
Unit: mm



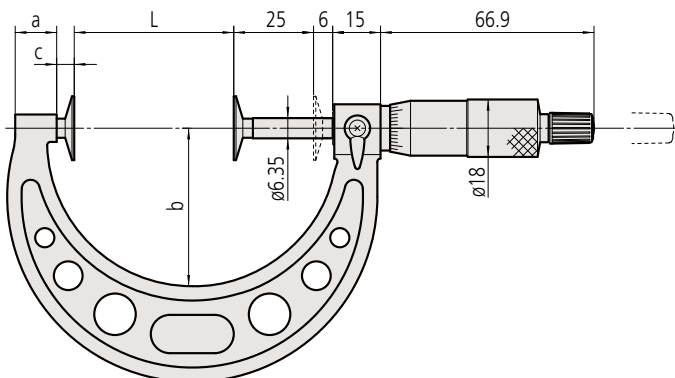
Digital models up to 100 mm measuring range



Analog models up to 50 mm measuring range



Analog over 50 mm measuring range



Range	L	a	b	c	e	f	t
Digimatic (LCD)							
0 - 25 mm	0	9.2	25	4.5	20	8	0.7
25 - 50 mm	25	11	31	5.4			
50 - 75 mm	50	12.2	50	5.5			
75 - 100 mm	75	14	60				
Analog							
0 - 25 mm	0	13.8	25	5.7	20	8 (9.8)	0.7 (0.7)
25 - 50 mm	25		32	5.5			
50 - 75 mm	50	12	49				
75 - 100 mm	75	14	63				
100 - 125 mm	100	12	79	6	30	12	1
125 - 150 mm	125	14.5	94				
150 - 175 mm	150	15.2	106				
175 - 200 mm	175	14.5	118				
200 - 225 mm	200	13.5	130				
225 - 250 mm	225		143				
250 - 275 mm	250	156					
275 - 300 mm	275	14.5	169				

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