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 (mm)	Resolution (mm)	Accuracy* (µm)	Anvil dia. (mm)	Measurable module
Digimatic (LCD)					
323-250-30	0 - 25	0.001	±4	ø20	0.5 - 6
323-251-30	25 - 50				
323-252-30	50 - 75		±6		
323-253-30	75 - 100				

* Excluding quantizing error of ±1 count

Metric

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

* The measuring disks have carbide tips.
Note 1: For functional details of **series 323**, refer to page B-8. Optional connecting cable is available only for water-proof type (Digimatic model).
Note 2: Root tangent length measurement is not available for some types of gears.

Inch/Metric

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

* Excluding quantizing error of ±1 count

Inch

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

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)

Root tangent length
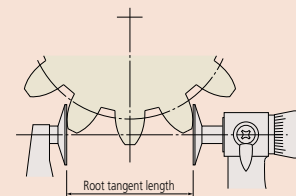
Technical Data
- Battery for **series 323**
SR44 (1 pc.), **938882**, for initial operational checks (standard accessory)
- Battery life: Approx. 2.4 years under normal use (for **series 323**)
- Length standard: Electromagnetic rotary sensor (for **series 323**)
- Standard accessories: Reference bar, 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**
- **U-WAVE-T** dedicated connection cable
160 mm: **02AZD790B**
For foot switch: **02AZE140B**
Refer to page A-25 for details.

Wireless Data Output U-WAVE fit
- U-WAVE-TM **264-622** (IP67 type)
264-623 (Buzzer type)
- Connecting unit for **U-WAVE-TM**
02AZF310 (IP67/buzzer type common specification)
Refer to page A-15 for details.