

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

B



SPECIFICATIONS

Metric					
Order No.	Range	Resolution	Accuracy*	Anvil dia.	Measurable module
Digimatic (LCD)					
323-250	0 - 25mm	0.001mm	±4μm	ø20mm	0.5 - 6
323-251	25 - 50mm				
323-252	50 - 75mm				
323-253	75 - 100mm				
			±6μm		

* Excluding quantizing error

Metric					
Order No.	Range	Graduation	Accuracy	Anvil dia.	Measurable module
Mechanical counter model					
223-101	0 - 25mm	0.01mm	±4μm	ø20mm	0.5 - 6
223-102	25 - 50mm		±4μm		
Analog					
123-101	0 - 25mm	0.01mm	±4μm	ø20mm	0.5 - 6
123-113*			25 - 50mm		
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	±9μm			
123-108		275 - 300mm	±9μm		
123-109					
123-110					
123-111					
123-112					

* The measuring disks have carbide tips.

Inch/Metric					
Order No.	Range	Resolution	Accuracy*	Anvil dia.	Measurable module
Digimatic (LCD)					
323-350	0 - 1"	0.001mm	±.0002"	.787"	0.5 - 6
323-351	1" - 2"				
323-352	2" - 3"				
323-353	3" - 4"				

* Excluding quantizing error

Inch					
Order No.	Range	Graduation	Accuracy	Anvil dia.	Measurable module
Mechanical counter model					
223-125	0 - 1"	.001"	±.0002"	.787"	0.5 - 6
Analog					
123-125	0 - 1"	.001"	±.0002"	.787"	0.5 - 6
123-126	1" - 2"		±.0003"		
123-127	2" - 3"				
123-128	3" - 4"				



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



www.tuv.com
ID 4011207400

IP Codes (323 series)

Level 6: Dust-proof.

No ingress of dust allowed.

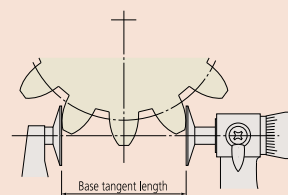
Level 5: Protected against water jets.

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

Technical Data

Flatness: 1μm/.00004" for models up to 100mm/4"
1.6μm/.000063" for models over 100mm/4"
Parallelism: 4μm/.00016" for models up to 50mm/2"
6μm/.00024" for models up to 100mm
(5+R/75)μm for models over 100mm,
R = max. range (mm)
fraction rounded up
.00024" for models up to 4"

Root tangent length of gear (En)



Battery for series 323

SR44 (1 pc), 938882, for initial operational checks (standard accessory)

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

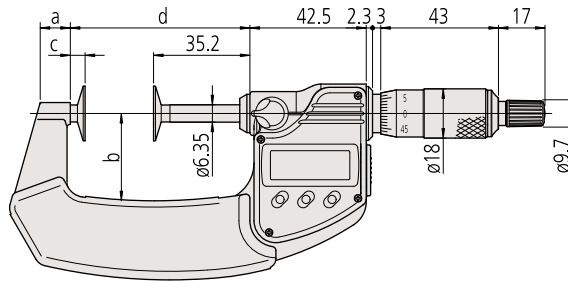
For foot switch: 02AZE140B

Refer to page A-21 for details.

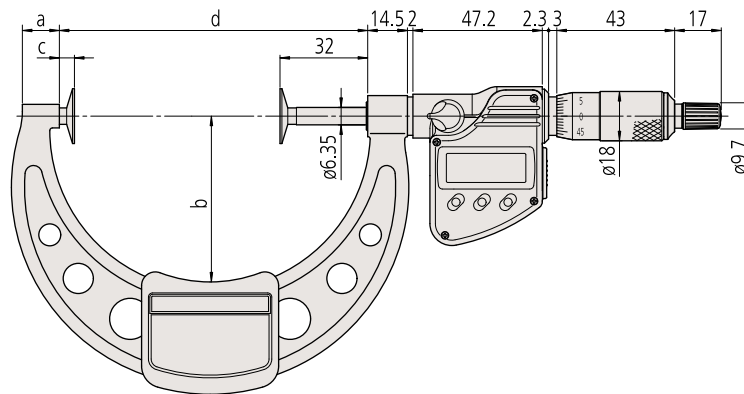
DIMENSIONS

Digital models up to 75mm measuring range

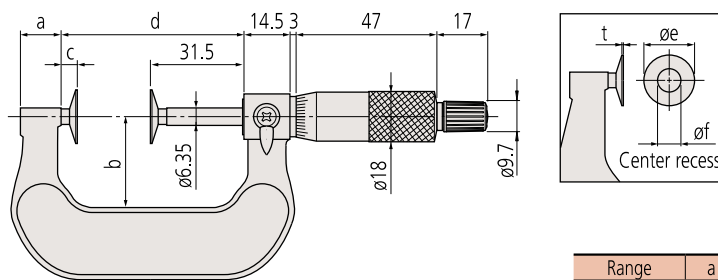
Unit: mm



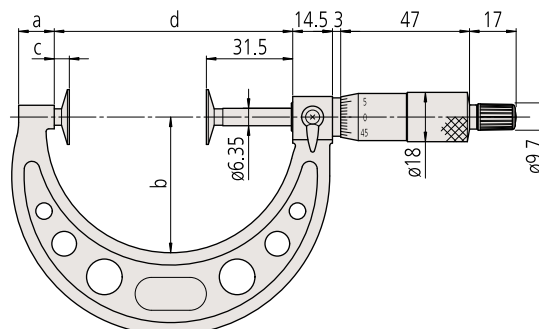
Digital models up to 100mm measuring range



Analog models up to 50mm measuring range



Analog over 50mm measuring range



Range	a	b	c	d	e	f	t	
Digimatic (LCD)								
0 - 25mm	9.2	25	4.5	39.7	20	8	0.7	
25 - 50mm	11	31	5.4	65.6				
50 - 75mm	12.2	50	5.5	90.7				
75 - 100mm	14	60	5.5	112				
Analog								
0 - 25mm	13.8	25	5.7	37.2	20	8 (9.8)	0.7 (0.7)	
25 - 50mm		32		62.2				
50 - 75mm		12		49				87
75 - 100mm		14		63				112
100 - 125mm	12	79	6	137.5	30	12	1	
125 - 150mm	15	94		162.5				
150 - 175mm	16	106		187.5				
175 - 200mm	15	118		212.5				
200 - 225mm	14	130	5.5	237.5	30	12	1	
225 - 250mm		143		262.5				
250 - 275mm		156		287.5				
275 - 300mm	15	169	312.5					

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