

Measurement example



Optional Accessories

Code No.	Type	Description
264-020	—	USB Input Tool Series USB Keyboard Signal Conversion Type IT-020U
05CZA662	B	Connection cable (1 m)
05CZA663	B	Connection cable (2 m)
06AFM380B	B	USB Input Tool Direct (2 m)
02AZD730G	IP67	U-WAVE-T
02AZD880G	Buzzer	U-WAVE-T
02AZE200	—	U-WAVE-T mounting bracket
02AZD790B	B	Connection cable for U-WAVE-T (160 mm)
02AZE140B	B	Connection cable for U-WAVE-T For foot switch
264-622	IP67	U-WAVE-TM
264-623	Buzzer	U-WAVE-TM
264-626	IP67	U-WAVE-TMB
264-627	Buzzer	U-WAVE-TMB
02AZF310	IP67	Connecting unit for U-WAVE-TM/TMB

Disk Micrometers SERIES 323

- Measures "root tangent length" of spur gears and helical gears.
- Determination of the root tangent length: refer to "Quick Guide to Precision Measuring Instruments" on page 02-80.
- Equipped with Ratchet Stop for constant measuring force.



323-250-30

SPECIFICATIONS

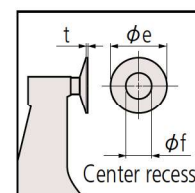
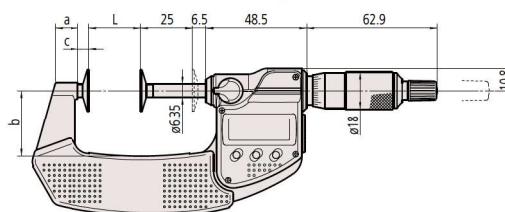
Metric							
Code No.	Range (mm)	Resolution (mm)	Maximum permissible error J_{MPE} (μm)	Flatness (μm)	Parallelism (μm)	Anvil dia. (mm)	Measurable module
With SPC data output							
323-250-30	0 - 25	0.001	±4	1	4	ø20	0.5 - 6
323-251-30	25 - 50		±6		6		
323-252-30	50 - 75						
323-253-30	75 - 100						
Inch / Metric							
Code No.	Range (in)	Resolution	Maximum permissible error J_{MPE} (in)	Flatness (in)	Parallelism (in)	Anvil dia. (in)	Measurable module
With SPC data output							
323-350-30	0 - 1	0.00005 in/ 0.001 mm	±0.0002	0.00004	0.0002	ø0.787	0.5 - 6
323-351-30	1 - 2		±0.0003		0.0003		
323-352-30	2 - 3						
323-353-30	3 - 4						

- Power source: SR44 battery (1 pc.), **938882** included as standard (for operational checks)
 - Battery life: Approx. 2.4 years under normal use
 - Position detection method: Electromagnetic rotary sensor
 - Standard accessories: Setting standard, 1 pc. (except for measuring range 0 to 25 mm (0 to 1 in) models), Spanner (**301336**), 1 pc.
- Note 1: Root tangent length measurement is not available for some types of gears.
Note 2: For functional details, refer to page 02-7.
Optional connection cable is available only for water-proof type (Digimatic model).

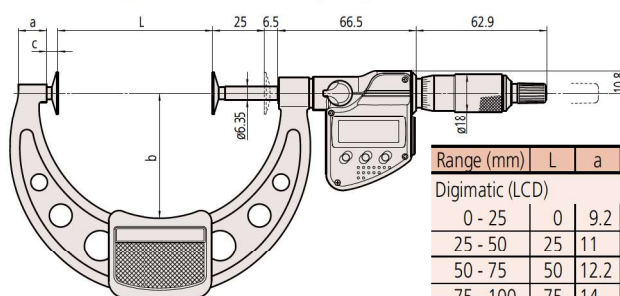
DIMENSIONS

Digimatic models up to 75 mm measuring range

Unit: mm



Digimatic models up to 100 mm measuring range



Range (mm)	L	a	b	c	e	f	t
Digimatic (LCD)							
0 - 25	0	9.2	25	4.5	20	8	0.7
25 - 50	25	11	31	5.4			
50 - 75	50	12.2	50	5.5			
75 - 100	75	14	60				

Micrometer

02
Micrometers

Disk Micrometers
SERIES 223, 123

- Can be used for making root tangent measurements on spur gears and helical gears.
- Determination of the root tangent length: refer to "Quick Guide to Precision Measuring Instruments" on page 02-80.
- Equipped with Ratchet Stop for constant measuring force.



SPECIFICATIONS

Metric										
Code No.	Range (mm)	Graduation (mm)	Maximum permissible error <i>J</i> MPE (μm)	Flatness (μm)	Parallelism (μm)	Anvil dia. (mm)	Measurable module			
Mechanical counter model										
223-101	0 - 25	0.01	±4	1	4	ø20	0.5 - 6			
223-102	25 - 50									
Analog										
123-101	0 - 25	0.01	±4	1	4	ø20	0.5 - 6			
123-113*										
123-102	25 - 50		±6		6					
123-114*										
123-103	50 - 75		±7	1.6	7	ø30	0.7 - 11			
123-115*										
123-104	75 - 100		±8		8					
123-116*										
123-105	100 - 125		±9		9					
123-106	125 - 150									
123-107	150 - 175		±9		9					
123-108	175 - 200									
123-109	200 - 225		±9		9					
123-110	225 - 250									
123-111	250 - 275		±9		9					
123-112	275 - 300									
Inch										
Code No.	Range (in)	Graduation (in)	Maximum permissible error <i>J</i> MPE (in)	Flatness (in)	Parallelism (in)	Anvil dia. (in)	Measurable module			
Mechanical counter model										
223-125	0 - 1	0.001	±0.0002	0.00004	0.0002	ø0.787	0.5 - 6			
Analog										
123-125	0 - 1	0.001	±0.0002	0.00004	0.0002	ø0.787	0.5 - 6			
123-126	1 - 2				0.0003					
123-127	2 - 3									
123-128	3 - 4									

* The measuring disks have carbide tips.
• Standard accessories: Setting standard, 1 pc. (except for measuring range 0 to 25 mm (0 to 1 in) models), Spanner (301336), 1 pc.
Note: Root tangent length measurement is not available for some types of gears.

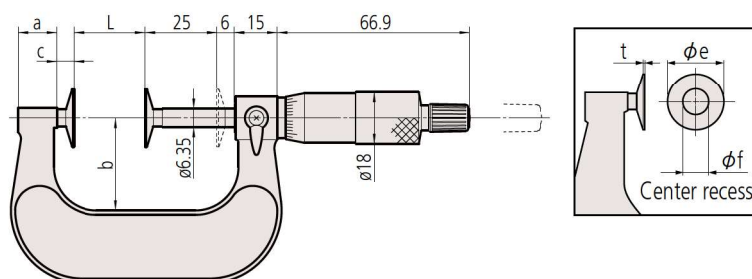
Special Purpose Micrometers

Disk Micrometers **SERIES 223, 123**

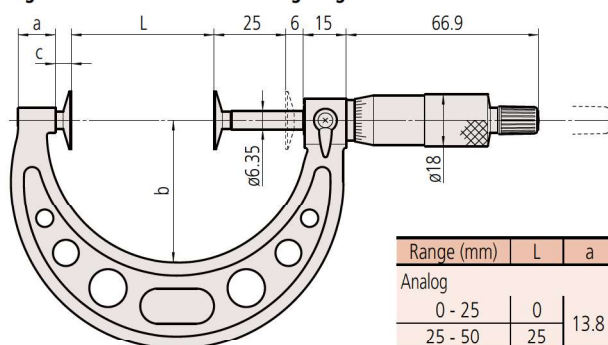
DIMENSIONS

Analog models up to 50 mm measuring range

Unit: mm



Analog models over 50 mm measuring range



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

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