

# Disk Micrometers

## SERIES 323, 223, 123 - Rotating Spindle



### FEATURES

- Diameter of measuring disk: .787" / 20mm.
- .028" / 0.7mm (1mm: models over 100mm) edge thickness to enter narrow recesses.
- With ratchet stop for constant force.
- Non-slip grip finish (digital models).
- With a standard bar except for 0 - 1" / 0 - 25mm model.
- With SPC output (Series 323).
- The Series 223 is provided with a mechanical digit counter for quick reading of measurements.
- Supplied in fitted plastic case. (Over 100mm models supplied wooden cases).



123-125



323-350-30



123-103



223-125

### SPECIFICATIONS

#### Metric Digital model

Range	Resolution	Order No.	Accuracy	Mass (g)
0 - 25mm	0.001mm	323-250-30	±4µm	290
25 - 50mm	0.001mm	323-251-30	±4µm	355
50 - 75mm	0.001mm	323-252-30	±6µm	555
75 - 100mm	0.001mm	323-253-30	±6µm	610

#### Metric Mechanical counter model

Range	Graduation	Order No.	Accuracy	Mass (g)
0 - 25mm	0.01mm	223-101	±4µm	260
25 - 50mm	0.01mm	223-102	±4µm	290

#### Metric

Range	Graduation	Order No.	Accuracy	Mass (g)
0 - 25mm	0.01mm	123-101	±4µm	200
		123-113*	±4µm	230
		123-114*	±4µm	270
25 - 50mm	0.01mm	123-102	±4µm	250
		123-115*	±6µm	320
50 - 75mm	0.01mm	123-103	±6µm	300
		123-116*	±6µm	390
75 - 100mm	0.01mm	123-104	±6µm	375
100 - 125mm	0.01mm	123-105	±7µm	520
125 - 150mm	0.01mm	123-106	±7µm	570
150 - 175mm	0.01mm	123-107	±8µm	730
175 - 200mm	0.01mm	123-108	±8µm	890
200 - 225mm	0.01mm	123-109	±8µm	1000
225 - 250mm	0.01mm	123-110	±9µm	1200
250 - 275mm	0.01mm	123-111	±9µm	1410
275 - 300mm	0.01mm	123-112	±9µm	1680

\*The measuring disks have carbide tips.  
Note: The disk diameter of models over 100mm is 30mm.

#### Inch/Metric Digital model

Range	Resolution	Order No.	Accuracy	Mass (g)
0 - 1" / 0 - 25.4mm	.00005" / 0.001mm	323-350-30	±.0002"	290
1 - 2" / 25.4 - 50.8mm	.00005" / 0.001mm	323-351-30	±.0002"	355
2 - 3" / 50 - 76.2mm	.00005" / 0.001mm	323-352-30	±.0003"	555
3 - 4" / 76.2 - 101.6mm	.00005" / 0.001mm	323-353-30	±.0003"	610

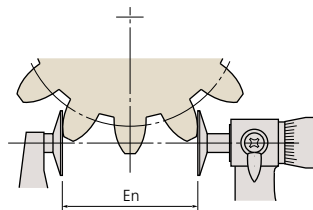
#### Inch Mechanical counter model

Range	Graduation	Order No.	Accuracy	Mass (g)
0 - 1"	.001"	223-125	±.0002"	260

#### Inch

Range	Graduation	Order No.	Accuracy	Mass (g)
0 - 1"	.001"	123-125	±.0002"	200
1 - 2"	.001"	123-126	±.0002"	250
2 - 3"	.001"	123-127	±.0003"	300
3 - 4"	.001"	123-128	±.0003"	375

### Root tangent length of gear (En)



Note: Root tangent length measurement is not available for some types of gears.

### Technical Data

Accuracy: Refer to the list of specifications  
Resolution\*: .00005" / 0.001mm or 0.001mm  
Graduation\*\*: .001" or 0.01mm  
Flatness: .00004" / 1µm for models up to 4" / 100mm  
.000063" / 1.6µm for models over 4" / 100mm  
Parallelism: .00016" / 4µm for models up to 2" / 50mm  
.00024" for models up to 4"  
(4+R/50)µm for models up to 100mm  
(5+R/75)µm for models over 100mm, R=max. range (mm)  
Measurable module: 0.5-6 (0.7-11: models over 100mm)  
Display\*: LCD  
Battery\*: SR44 (1 pc.), 938882  
Battery life\*: Approx. 2.4 years under normal use  
\*Digital models \*\*Analog models

### Function of Digital Model

Origin-set, Zero / ABS, Data hold, Data output, inch/mm conversion (on inch/metric models only)  
Function lock  
Alarm: Low voltage, Counting value composition error

### Optional Accessories for Digital Model

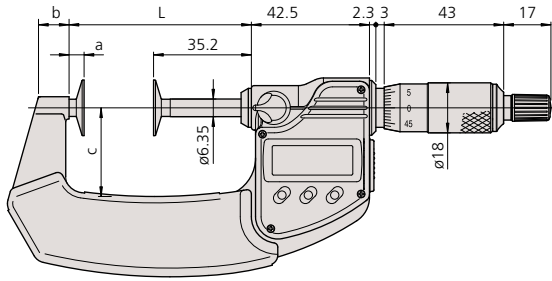
05CZA662: SPC cable with data switch (40" / 1m)  
05CZA663: SPC cable with data switch (80" / 2m)



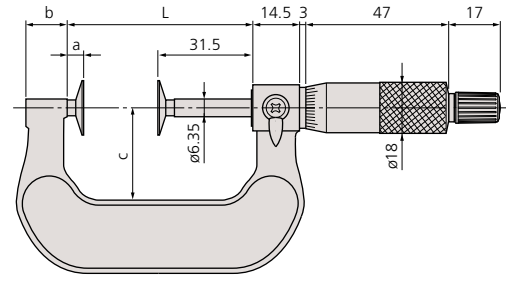
# DIMENSIONS

Unit: mm

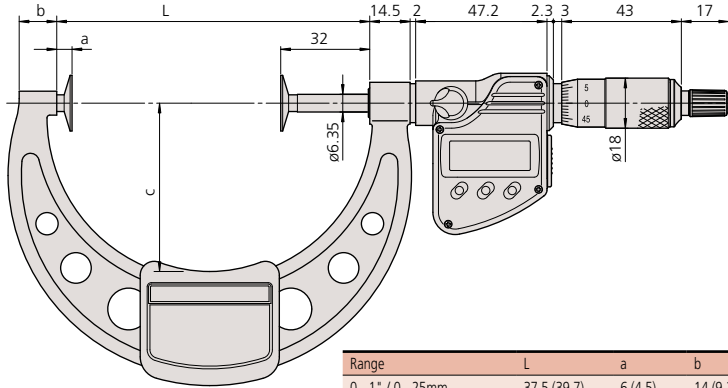
## Digital models up to 75mm



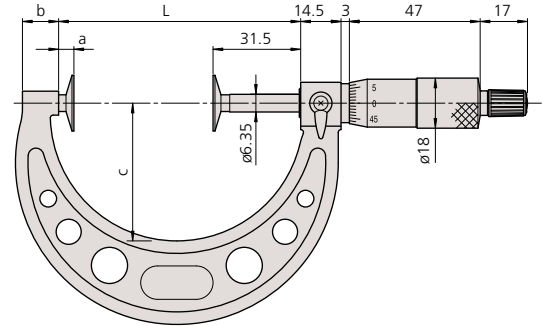
## Analog models up to 50mm



## Digital models up to 75mm

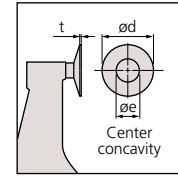


## Analog over 50mm



Range	L	a	b	c	ød	øe	t
0 - 1" / 0 - 25mm	37.5 (39.7)	6 (4.5)	14 (9.2)	25 (25.4)	20	8 (9.8)	0.7
1 - 2" / 25 - 50mm	62.5 (65.6)	6 (5.4)	14 (11)	32 (31.9)	20	8 (9.8)	0.7
2 - 3" / 50 - 75mm	87 (90.7)	5.5 (5.5)	11 (12.2)	49 (50)	20	8 (9.8)	0.7
3 - 4" / 75 - 100mm	112 (112.5)	5.5 (5.5)	11 (13.5)	63 (60.5)	20	8 (9.8)	0.7
4 - 5" / 100 - 125mm	137.5	6	12	79	30	12	1
5 - 6" / 125 - 150mm	162.5	6	15	94	30	12	1
6 - 7" / 150 - 175mm	187.5	6	16	106	30	12	1
7 - 8" / 175 - 200mm	212.5	6	15	118	30	12	1
8 - 9" / 200 - 225mm	237.5	6	14	130	30	12	1
9 - 10" / 225 - 250mm	262.5	6	14	143	30	12	1
10 - 11" / 250 - 275mm	287.5	6	15	156	30	12	1
11 - 12" / 275 - 300mm	312.5	6	15	169	30	12	1

Data in ( ) applies to those with carbide tipped disks.

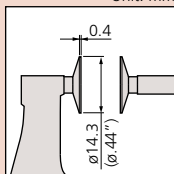


## Technical Data

Graduation: .001" or 0.01mm  
 Flatness: .00004" / 1µm  
 Parallelism: .00012" / 3µm  
 Measuring Force: 8.02 ±0.8N  
 53.9KPa ±4.9 KPa



Unit: mm



( ) : Inch model

# Paper Thickness Micrometers

**SERIES 169 — Non-Rotating Spindle Type Designed for Paper Thickness Measurement**

## FEATURES

- Non-rotating spindle.
- With ratchet stop for constant force.
- Supplied in fitted plastic case.

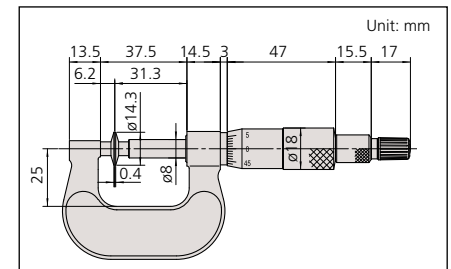


169-101

## SPECIFICATIONS

Metric				
Range	Graduation	Order No.	Accuracy	Mass (g)
0 - 25mm	0.01mm	169-101	±4µm	230g

## DIMENSIONS



Inch				
Range	Graduation	Order No.	Accuracy	Mass (g)
0 - 1"	.001"	169-103	±.0002"	230g