

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.
- 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



123-103



323-350



223-125

SPECIFICATIONS

Metric Digital model

Range	Resolution	Order No.	Accuracy	Mass (g)
0 - 25mm	0.001mm	323-250	±4μm	290
25 - 50mm	0.001mm	323-251	±4μm	355
50 - 75mm	0.001mm	323-252	±6μm	555
75 - 100mm	0.001mm	323-253	±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
25 - 50mm	0.01mm	123-102	±4μm	250
		123-114*	±4μm	270
50 - 75mm	0.01mm	123-103	±6μm	300
		123-115*	±6μm	320
75 - 100mm	0.01mm	123-104	±6μm	375
		123-116*	±6μm	390
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	±.0002"	290
1 - 2" / 25.4 - 50.8mm	.00005" / 0.001mm	323-351	±.0002"	355
2 - 3" / 50 - 76.2mm	.00005" / 0.001mm	323-352	±.0003"	555
3 - 4" / 76.2 - 101.6mm	.00005" / 0.001mm	323-353	±.0003"	610

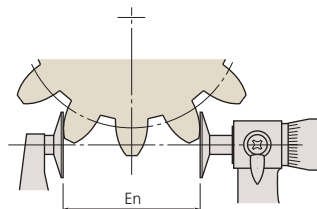
Inch Mechanical counter model

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 .00004" / 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. 1.2 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)
Alarm: Low voltage, Counting value composition error

Optional Accessories for Digital Model

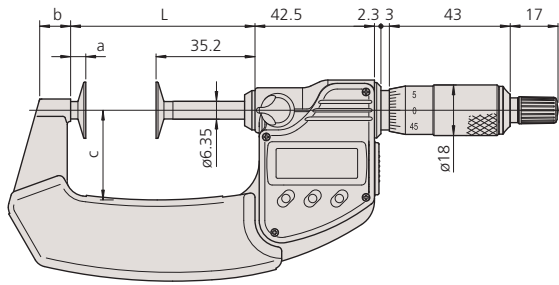
05CZA662: SPC cable with data switch (40" / 1m)
05CZA663: SPC cable with data switch (80" / 2m)



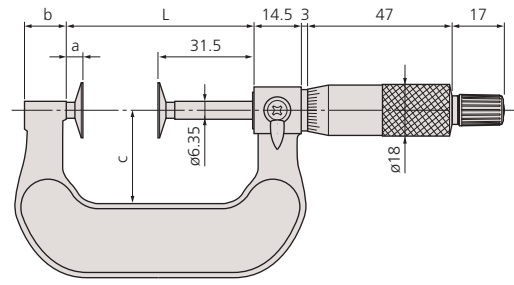
DIMENSIONS

Unit: mm

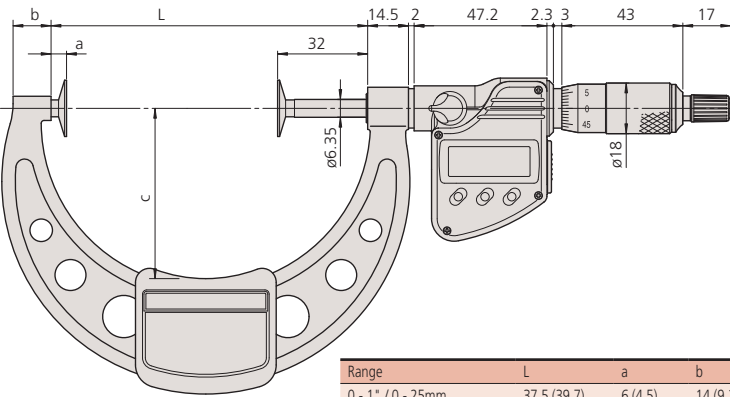
Digital models up to 75mm



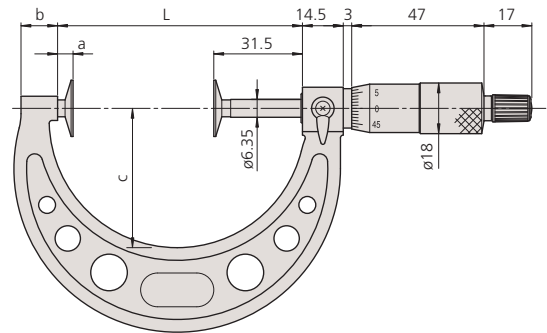
Analog models up to 50mm



Digital models over 50mm

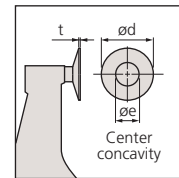


Analog over 50mm



Range	L	a	b	c	ϕd	ϕe	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.

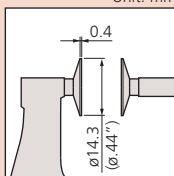


Technical Data

Graduation: .001" or 0.01mm
 Flatness: .00004" / 1 μ m
 Parallelism: .00012" / 3 μ m
 Measuring Force: 8.02 \pm 0.8N
 53.9KPa \pm 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.

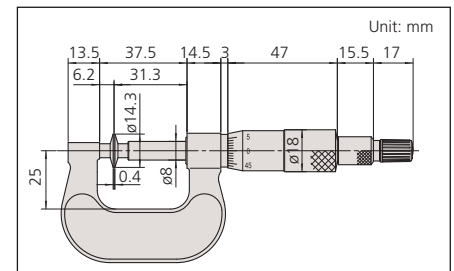


169-101

SPECIFICATIONS

Metric				
Range	Graduation	Order No.	Accuracy	Mass (g)
0 - 25mm	0.01mm	169-101	$\pm 4\mu$ m	230g

DIMENSIONS



Unit: mm

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

Mitutoyo