

# Spline Micrometers

## SERIES 331, 111



### FEATURES

- IP65 water/dust protection (Series 331).
- The anvil and spindle have a small diameter for measuring splined shafts, slots, and keyways.
- With Ratchet Stop for constant force.
- With SPC output (Series 331).
- With a standard bar except 0-1" and 0-25mm model.
- Supplied in fitted plastic case.



331-351



111-115

### SPECIFICATIONS

Metric		Digital model			
Range	Resolution	Order No.	Accuracy	Remarks	Mass (g)
0 - 25mm	0.001mm	331-251	±2µm	Type A	330
		331-261	±2µm	Type B	330
25 - 50mm	0.001mm	331-252	±2µm	Type A	470
		331-262	±2µm	Type B	470
50 - 75mm	0.001mm	331-253	±2µm	Type A	625
		331-263	±2µm	Type B	625
75 - 100mm	0.001mm	331-254	±3µm	Type A	565
		331-264	±3µm	Type B	565

Metric					
Range	Graduation	Order No.	Accuracy	Remarks	Mass (g)
0 - 25mm	0.01mm	111-115	±3µm	Type A	205
		111-215	±3µm	Type B	205
25 - 50mm	0.01mm	111-116	±3µm	Type A	305
50 - 75mm	0.01mm	111-117	±3µm	Type A	370
75 - 100mm	0.01mm	111-118	±4µm	Type A	500
100 - 125mm	0.01mm	111-119	±4µm	Type A	655
125 - 150mm	0.01mm	111-120	±4µm	Type A	710
150 - 175mm	0.01mm	111-121	±5µm	Type A	900
175 - 200mm	0.01mm	111-122	±5µm	Type A	1040

Inch/Metric		Digital model			
Range	Resolution	Order No.	Accuracy	Remarks	Mass (g)
0 - 1" / 0 - 25.4mm	.00005" / 0.001mm	331-351	±.0001"	Type A	330
		331-361	±.0001"	Type B	330
1 - 2" / 25.4-50.8mm	.00005" / 0.001mm	331-352	±.0001"	Type A	470
		331-362	±.0001"	Type B	470
2 - 3" / 50.8-76.2mm	.00005" / 0.001mm	331-353	±.0001"	Type A	625
		331-363	±.0001"	Type B	625
3 - 4" / 76.2-101.6mm	.00005" / 0.001mm	331-354	±.00015"	Type A	565
		331-364	±.00015"	Type B	565

Inch					
Range	Graduation	Order No.	Accuracy	Remarks	Mass (g)
0 - 1"	.0001"	111-166*	±.00015"	Type A	205

\*.0001" reading is obtained with vernier.

### Technical Data

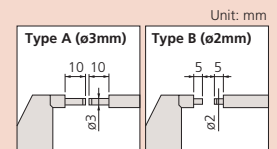
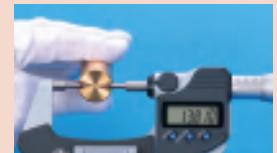
Accuracy: Refer to the list of specifications.  
 Resolution\*: .00005"/0.001mm or 0.001mm  
 Graduation\*\*: .0001" or 0.01mm, .001"  
 Flatness: .000012" / 0.3µm  
 Parallelism: (2+R/100)µm, R=max. range (mm)  
 [.00008" + .00004" (L/4")]  
 L = max. range (inch)  
 Measuring faces: Carbide tipped  
 Display\*: LCD  
 Battery\*: SR44 (1 pc.), 938882  
 Battery life\*: Approx. 1.2 years under normal use  
 Dust/Water protection level\*: IP65  
 \*Digital models \*\*Analog models

### Function of Digital Model

Origin-set, Zero-setting, 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

**Models up to 75mm**

Digital model

**Models over 75mm**

Digital model

Range	L	a	b	c
0 - 25mm	58.2 (55.3)	17.5 (17.8)	7.3 (10)	32 (38)
25 - 50mm	83.2 (80.3)	17.5 (17.8)	10.1 (12)	47 (49)
50 - 75mm	108.2 (105.3)	20.3 (17.8)	11.5 (14)	60 (60)
75 - 100mm	132.8 (132.8)	20.3 (20.3)	16.7 (17)	76.5 (79)