

# 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.
- Non-slip grip finish (digital models)
- 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.

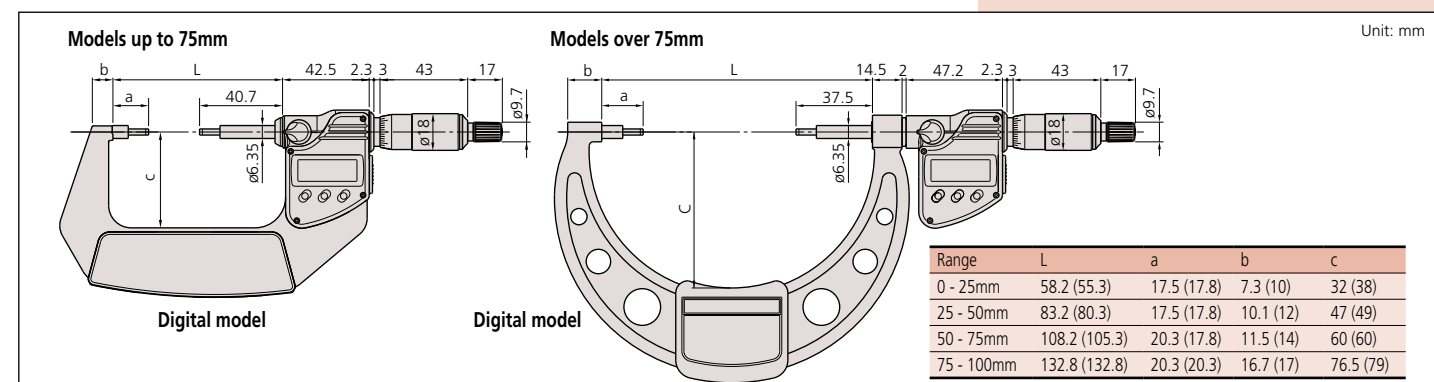


## SPECIFICATIONS

| Metric     |            | Digital model |          |         |          |
|------------|------------|---------------|----------|---------|----------|
| Range      | Resolution | Order No.     | Accuracy | Remarks | Mass (g) |
| 0 - 25mm   | 0.001mm    | 331-251-30    | ±2μm     | Type A  | 330      |
|            |            | 331-261-30    | ±2μm     | Type B  | 330      |
| 25 - 50mm  | 0.001mm    | 331-252-30    | ±2μm     | Type A  | 470      |
|            |            | 331-262-30    | ±2μm     | Type B  | 470      |
| 50 - 75mm  | 0.001mm    | 331-253-30    | ±2μm     | Type A  | 625      |
|            |            | 331-263-30    | ±2μm     | Type B  | 625      |
| 75 - 100mm | 0.001mm    | 331-254-30    | ±3μm     | Type A  | 565      |
|            |            | 331-264-30    | ±3μm     | Type B  | 565      |

| Metric      |            | Digital model |          |         |          |
|-------------|------------|---------------|----------|---------|----------|
| 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      |
|             |            | 111-117       | ±3μm     | Type A  | 370      |
| 50 - 75mm   | 0.01mm     | 111-118       | ±4μm     | Type A  | 500      |
|             |            | 111-119       | ±4μm     | Type A  | 655      |
| 125 - 150mm | 0.01mm     | 111-120       | ±4μm     | Type A  | 710      |
|             |            | 111-121       | ±5μm     | Type A  | 900      |
| 150 - 175mm | 0.01mm     | 111-122       | ±5μm     | Type A  | 1040     |
|             |            |               |          |         |          |

## DIMENSIONS



## 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. 2.4 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)  
 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)

| Inch/Metric           |                   | Digital model |          |         |          |
|-----------------------|-------------------|---------------|----------|---------|----------|
| Range                 | Resolution        | Order No.     | Accuracy | Remarks | Mass (g) |
| 0 - 1" / 0 - 25.4mm   | .00005" / 0.001mm | 331-351-30    | ±.0001"  | Type A  | 330      |
|                       |                   | 331-361-30    | ±.0001"  | Type B  | 330      |
| 1 - 2" / 25.4-50.8mm  | .00005" / 0.001mm | 331-352-30    | ±.0001"  | Type A  | 470      |
|                       |                   | 331-362-30    | ±.0001"  | Type B  | 470      |
| 2 - 3" / 50.8-76.2mm  | .00005" / 0.001mm | 331-353-30    | ±.0001"  | Type A  | 625      |
|                       |                   | 331-363-30    | ±.0001"  | Type B  | 625      |
| 3 - 4" / 76.2-101.6mm | .00005" / 0.001mm | 331-354-30    | ±.00015" | Type A  | 565      |
|                       |                   | 331-364-30    | ±.00015" | Type B  | 565      |

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

\*.0001" reading is obtained with vernier.

