

Micrometer

The origin of Mitutoyo's trustworthy brand of small tool instruments

Spline Micrometers SERIES 331, 111, 131

MeasurLink ENABLED
Data Management Software by Mitutoyo

- The anvil and spindle are of small diameter for measuring splined shafts, slots and keyways.
- IP65 water/dust protection (**series 331**).
- Measuring faces: Carbide.
- Equipped with Ratchet Stop for constant measuring force.



331-251-30



111-115

SPECIFICATIONS

Metric				
Order No.	Range (mm)	Resolution (mm)	Accuracy* (µm)	Remarks
Digimatic (LCD)				
331-251-30	0 - 25	0.001	±2	Type A
331-252-30	25 - 50			
331-253-30	50 - 75			
331-254-30 ⁺²	75 - 100			
331-261-30	0 - 25			
331-262-30	25 - 50		±2	Type B
331-263-30	50 - 75			
331-264-30 ⁺²	75 - 100			

*1 For functional details of **series 331** refer to page B-8.
Optional connecting cable is available only for water-proof type (Digimatic model).

*2 Made to order.

Metric							
Order No.	Range (mm)	Graduation (mm)	Accuracy (µm)	Remarks			
Analog							
111-215	0 - 25	0.01	±3	Type B			
111-115	0 - 25						
111-116	25 - 50						
111-117	50 - 75						
111-118	75 - 100						
111-119	100 - 125						
111-120	125 - 150						
111-121	150 - 175				±4	Type A	
111-122	175 - 200						
111-123	200 - 225						
111-124	225 - 250						
111-125	250 - 275						
111-126	270 - 300						
Mechanical counter model							
131-115	0 - 25			±3			Type A

Inch / Metric				
Order No.	Range (in)	Resolution	Accuracy* (in)	Remarks
Digimatic (LCD)				
331-351-30	0 - 1	0.00005 in/ 0.001 mm	±0.0001	Type A
331-352-30	1 - 2			
331-353-30	2 - 3			
331-354-30	3 - 4			
331-361-30	0 - 1			
331-362-30	1 - 2		±0.0001	Type B
331-363-30	2 - 3			
331-364-30	3 - 4			

* Excluding quantizing error of ±1 count

Inch				
Order No.	Range (in)	Graduation (in)	Accuracy (in)	Remarks
Analog				
111-166	0 - 1	0.0001	±0.00015	Type A

MeasurLink ENABLED
Data Management Software by Mitutoyo

Products equipped with the measurement data output function can be connected to the measurement data network system MeasurLink (refer to page A-5 for details).



These marks indicate that a product has successfully passed IP65-level testing, which is carried out by the independent German certification organization TÜV Rheinland.



IP Codes (series 331)

Level 6: Dust-proof.

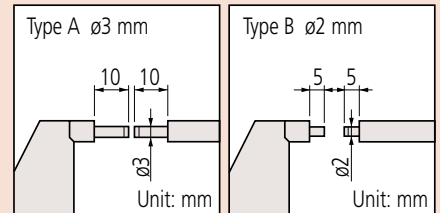
No ingress of dust allowed.

Level 5: Protected against water jets.

Water projected in jets against the enclosure from any direction shall have no harmful effects.

Technical Data

Flatness: 0.3 µm/0.000012 in
Parallelism: (2 + R/100) µm, R = max. range (mm)
[0.00008 in + 0.00004 (R/4)] in, R = max range (inch)
fraction rounded down



Technical Data

- Battery for **series 331**
SR44 (1 pc.), **938882**, for initial operational checks (standard accessory)
- Battery life: Approx. 2.4 years under normal use (for **series 331**)
- Length standard: Electromagnetic rotary sensor (for **series 331**)
- Standard accessories: Reference bar, 1 pc. (except for measuring range 0-25 mm (0-1 in) models)
Spanner (**301336**), 1 pc.

Optional Accessories

- Connecting cables for **series 331**
1 m: **05CZA662**
2 m: **05CZA663**
- USB Input Tool Direct
USB-ITN-B (2 m): **06AFM380B**
- **U-WAVE-T** dedicated connection cable
160 mm: **02AZD790B**
For foot switch: **02AZE140B**
Refer to page A-25 for details.

Wireless Data Output **U-WAVE**

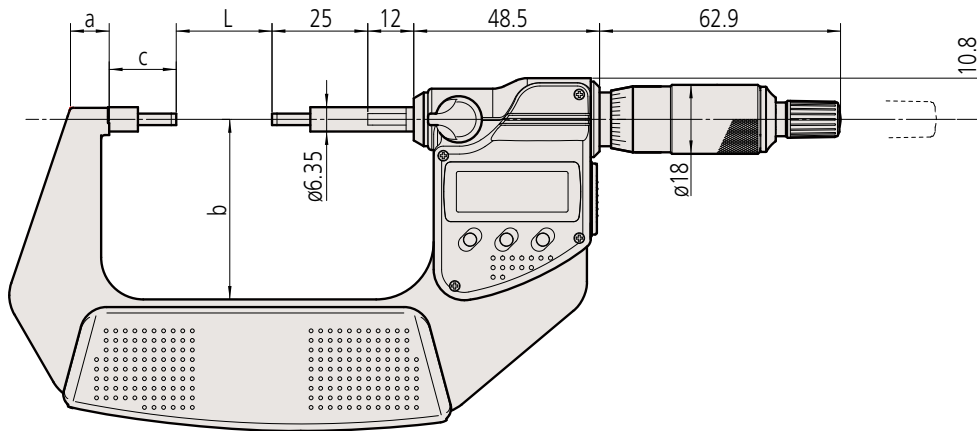
- **U-WAVE-TM** **264-622** (IP67 type)
264-623 (Buzzer type)
- Connecting unit for **U-WAVE-TM**
02AZF310 (IP67/buzzer type common specification)
Refer to page A-15 for details.

DIMENSIONS

Digimatic models

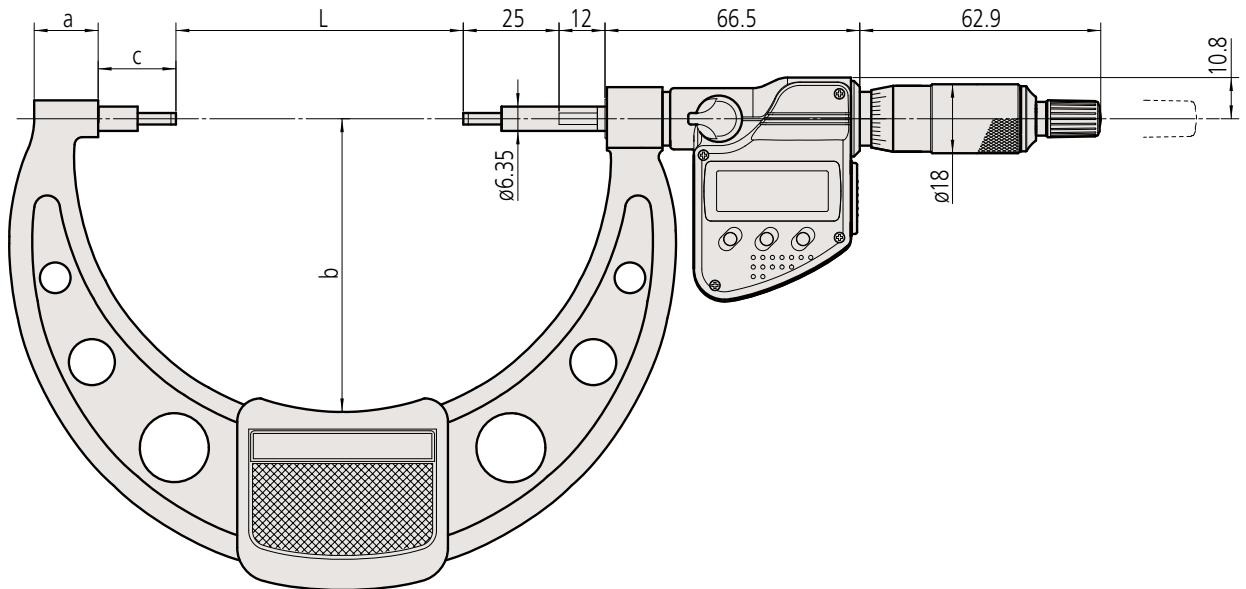
Models up to 75 mm measuring range

Unit: mm



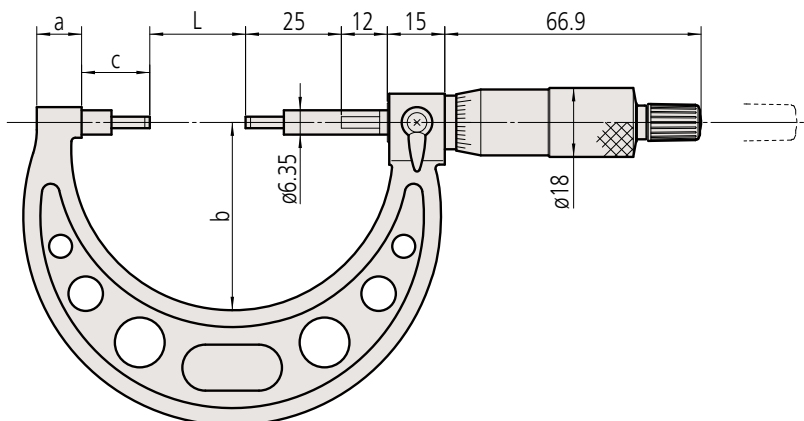
Digimatic models

Models over 75 mm measuring range



Analog models

Models up to 300 mm measuring range



Order No.	L	a	b	c
331-251-30	0	7.3	32.5	17.5
331-261-30				
331-252-30	25	10.1	47	
331-262-30				
331-253-30	50	11.5	60	20.3
331-263-30				
331-254-30	75	16.7	76	17.5
331-264-30				
111-215	0	10	38	
111-115	25	12	49	
111-117	50	14	60	
111-118	75	16.7	79	
111-119	100	18.8	94	
111-120	125	19.1	106	
111-121	150	18.2	118	
111-122	175	16.8	130	
111-123	200	18	143	20.5
111-124	225		156	21.5
111-125	250		169	
111-126	275		181	