

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.



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-25 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.

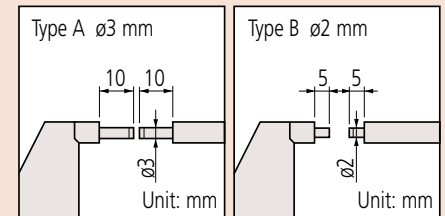


Dust- and Water-Protected
www.tuv.com
ID 000040191

Applicable models: **series 331**

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.



SPECIFICATIONS

Metric						
Order No.	Range (mm)	Resolution (mm)	Maximum permissible error J_{MPE} (μm)	Flatness (μm)	Parallelism (μm)	Remarks
Digimatic (LCD)						
331-251-30	0 - 25	0.001	±2	0.3	2	Type A
331-252-30	25 - 50					
331-253-30	50 - 75					
331-254-30*	75 - 100					
331-261-30	0 - 25		±3	0.3	3	Type B
331-262-30	25 - 50					
331-263-30	50 - 75					
331-264-30*	75 - 100					

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

Inch / Metric						
Order No.	Range (in)	Resolution	Maximum permissible error J_{MPE} (in)	Flatness (in)	Parallelism (in)	Remarks
Digimatic (LCD)						
331-351-30	0 - 1	0.00005 in/ 0.001 mm	±0.0001	0.000012	0.00008	Type A
331-352-30	1 - 2					
331-353-30	2 - 3					
331-354-30	3 - 4					
331-361-30	0 - 1		±0.00015	0.000012	0.00012	Type B
331-362-30	1 - 2					
331-363-30	2 - 3					
331-364-30	3 - 4					

Metric						
Order No.	Range (mm)	Graduation (mm)	Maximum permissible error J_{MPE} (μm)	Flatness (μm)	Parallelism (μm)	Remarks
Analog						
111-215	0 - 25	0.01	±3	0.3	2	Type A
111-115	0 - 25					
111-116	25 - 50					
111-117	50 - 75					
111-118	75 - 100					
111-119	100 - 125					
111-120	125 - 150		±4	0.3	3	Type A
111-121	150 - 175					
111-122	175 - 200					
111-123	200 - 225					
111-124	225 - 250					
111-125	250 - 275					
111-126	270 - 300	±5	0.3	4	Type A	
111-125	250 - 275					
111-126	270 - 300	±6	0.3	5	Type A	
111-125	250 - 275					
Mechanical counter model						
131-115	0 - 25		±3	0.3	2	Type A

Inch						
Order No.	Range (in)	Graduation (in)	Maximum permissible error J_{MPE} (in)	Flatness (in)	Parallelism (in)	Remarks
Analog						
111-166	0 - 1	0.0001	±0.00015	0.000012	0.00008	Type A

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 to 25 mm (0 to 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-21 for details.

Wireless Data Output **U-WAVE fit**

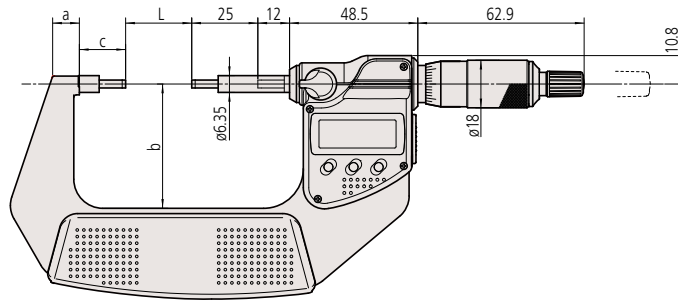
- **U-WAVE-TM 264-622** (IP67 type)
264-623 (Buzzer type)
- **U-WAVE-TMB** Transmitter
Mitutoyo Bluetooth® U-WAVE 264-626 (IP67 type)
264-627 (Buzzer type)
Refer to page A-10 for details.
- Connecting unit for **U-WAVE-TM/TMB 02AZF310** (IP67 / buzzer type common specification)
Refer to pages A-10 and A-12 for details.

DIMENSIONS

Unit: mm

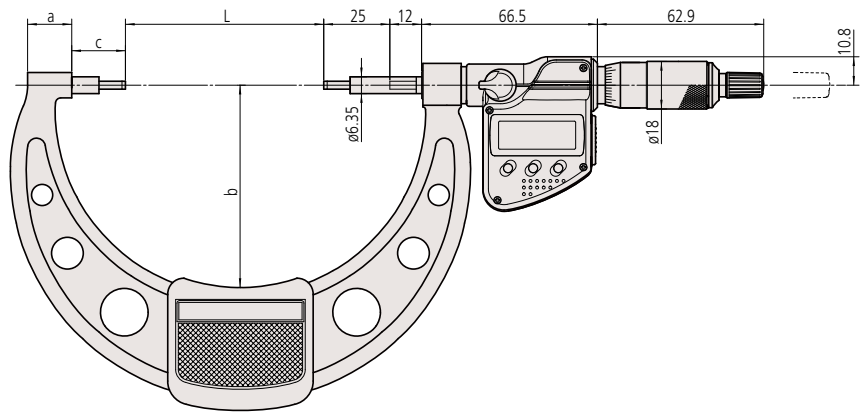
Digimatic models

Models up to 75 mm measuring range



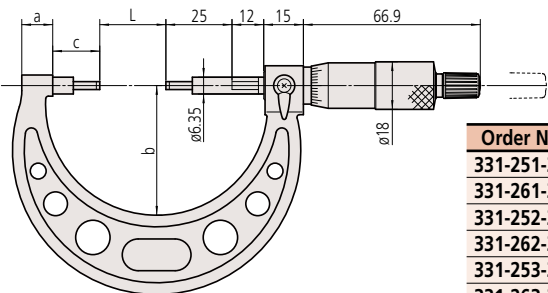
Models over 75 mm measuring range

Digimatic models



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	25	10.1	47			
331-252-30	50	11.5	60			
331-262-30	75	16.7	76			
331-253-30	100	18.8	94	20.3		
331-263-30	125	19.1	106	21.5		
331-254-30	150	18.2	118			
331-264-30	175	16.8	130			
111-215	200	18	143		20.5	
111-115	225		156		21.5	
111-116	250		169			
111-117	275		181			
111-118	0		10			38
111-119	25		12			49
111-120	50		14			60
111-121	75		16.7	79	20.3	
111-122	100		18.8	94	20.7	
111-123	125		19.1	106	21.1	
111-124	150	18.2	118	21.3		
111-125	175	16.8	130	21.7		
111-126	200	143	20.5			
	225	156				
	250	169				
	275	181				