

# Micrometer

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

## Point Micrometers SERIES 342, 142, 112

- Pointed spindle and anvil for measuring the web thickness of drills, small grooves, keyways and other hard-to-reach features.
- The measuring points (carbide tipped) have approximately 0.3 mm radius.
- Series 342: IP65 Digimatic micrometers.
- Equipped with Ratchet Stop for constant measuring force.

**MeasurLink<sup>®</sup> ENABLED**  
Data Management Software by Mitutoyo

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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.



(Refer to page X for details.)



342-251-30



112-201

## SPECIFICATIONS

Metric				
Order No.	Range	Resolution	Accuracy*	Point
Digimatic (LCD) (With carbide tip)				
342-251-30	0 - 25 mm	0.001 mm	±2 μm	15°
342-252-30	25 - 50 mm			
342-253-30	50 - 75 mm			
342-254-30	75 - 100 mm		±3 μm	30°
342-261-30	0 - 25 mm			
342-262-30	25 - 50 mm			
342-263-30	50 - 75 mm	±3 μm		
342-264-30	75 - 100 mm			

\* Excluding quantizing error of ±1 count

Inch/Metric				
Order No.	Range	Resolution	Accuracy*	Point
Digimatic (LCD) (With carbide tip)				
342-351-30	0 - 1 in	0.00005 in/ 0.001 mm	±0.0001 in	15°
342-352-30	1 - 2 in			
342-353-30	2 - 3 in			
342-354-30	3 - 4 in		±0.00015 in	30°
342-361-30	0 - 1 in			
342-362-30	1 - 2 in			
342-363-30	2 - 3 in	±0.00015 in		
342-364-30	3 - 4 in			

\* Excluding quantizing error of ±1 count

Metric				
Order No.	Range	Graduation	Accuracy	Point
Analog				
112-153	0 - 25 mm	0.01 mm	±3 μm	15°
112-154	25 - 50 mm			
112-155	50 - 75 mm		±4 μm	30°
112-156	75 - 100 mm			
112-201	0 - 25 mm	0.01 mm	±3 μm	30°
112-202	25 - 50 mm			
112-203	50 - 75 mm		±4 μm	15°
112-204	75 - 100 mm			
Analog (With carbide tip)				
112-165	0 - 25 mm	0.01 mm	±3 μm	15°
112-166	25 - 50 mm			
112-167	50 - 75 mm		±4 μm	30°
112-168	75 - 100 mm			
112-213	0 - 25 mm	0.01 mm	±3 μm	30°
112-214	25 - 50 mm			
112-215	50 - 75 mm		±4 μm	15°
112-216	75 - 100 mm			
Mechanical counter model				
142-153	0 - 25 mm		±3 μm	15°
142-201				30°

Inch				
Order No.	Range	Graduation	Accuracy	Point
Analog				
112-177	0 - 1 in	0.001 in	±0.00015 in	15°
112-178	1 - 2 in			30°
112-225	0 - 1 in		±0.00015 in	
112-226	1 - 2 in			30°
Analog (With carbide tip)				
112-189	0 - 1 in	0.001 in	±0.00015 in	15°
112-190	1 - 2 in			30°
112-191	2 - 3 in		±0.00015 in	
112-237	0 - 1 in			30°
112-238	1 - 2 in	±0.00015 in	15°	
Mechanical counter model				
142-177	0 - 1 in		±0.00015 in	15°
142-225				30°

## IP Codes (series 342)

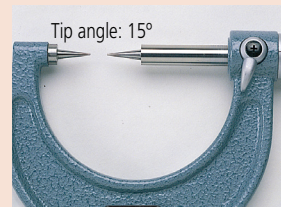
Level 6: Dust-proof.

No ingress of dust allowed.

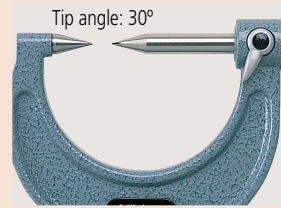
Level 5: Protected against water jets.

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

## Technical Data



Tip angle: 15°



Tip angle: 30°

## Battery for Series 342

**SR44** (1 pc), **938882**, for initial operational checks (standard accessory)

Battery life: Approx. 2.4 years under normal use (for series 342)

Length standard: Electromagnetic rotary sensor (for series 342)

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 342**

1 m: **05CZA662**

2 m: **05CZA663**

**USB Input Tool Direct**

**USB-ITN-B** (2 m): **06AFM380B**

Wireless data output **U-WAVE**

**U-WAVE-TM 264-622** (IP67 type)

**264-623** (Buzzer type)

Connecting unit for U-WAVE-TM

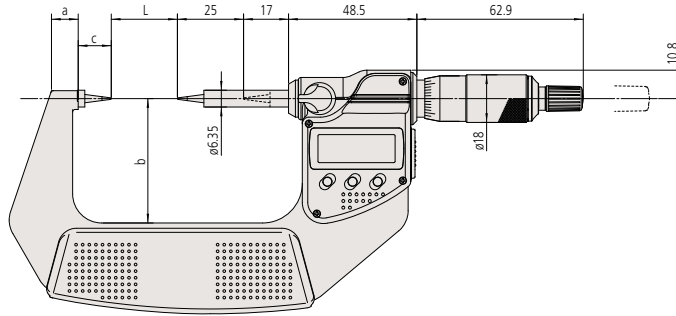
**02AZF310** (IP67 type)

Refer to page A-15 for details

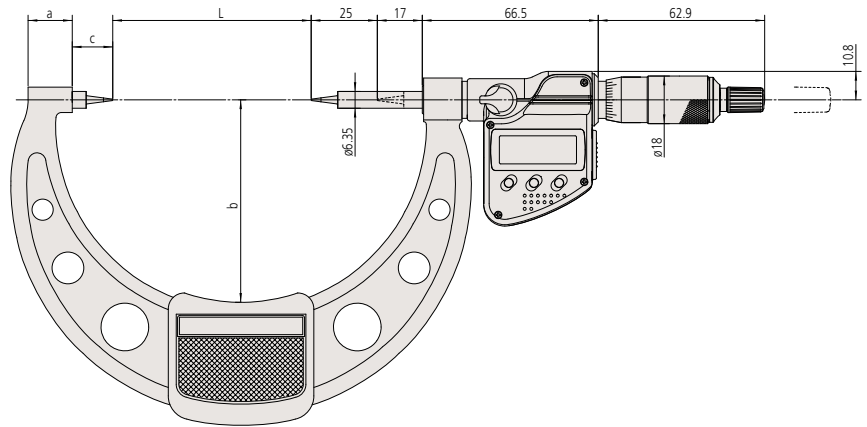
## DIMENSIONS

Unit: mm

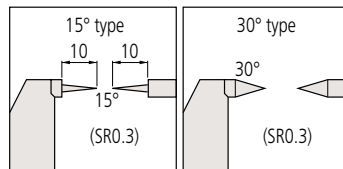
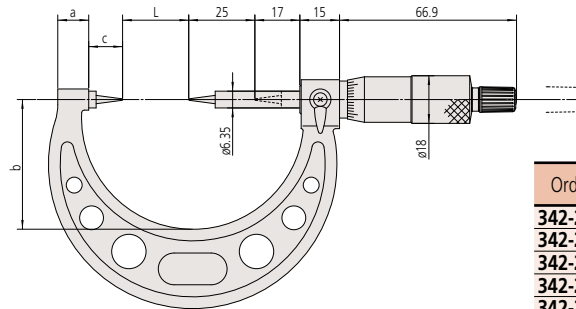
### Digital models up to 75 mm measuring range



### Digital models over 75 mm measuring range



### Analog models measuring range



Order No.	L	a	b	c	Frame thickness*1
<b>342-251-30</b>	0	7.3	32.5		(11.2)
<b>342-261-30</b>					(12.8)
<b>342-252-30</b>	25	10.1	47	12.5	(12.8)
<b>342-262-30</b>					(12.8)
<b>342-253-30</b>	50	11.5	60		(20.8)
<b>342-263-30</b>					(20.8)
<b>342-254-30</b>	75	16.7	76	15.3	(9)
<b>342-264-30</b>					(10)
<b>112-153</b>	0	10	38		(11)
<b>112-154</b>	25	12	49	12.5	(11)
<b>112-155</b>	50	14	60		(13)
<b>112-156</b>	75	16.7	79	15.3	

\*1 Digimatic type: thickness over heat shield