

# Micrometer

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

## Point Micrometers SERIES 342, 112, 142

**MeasurLink<sup>1</sup> ENABLED**  
Data Management Software by Mitutoyo

- Measures trough diameters, such as drill web diameters.
- The measuring points (carbide tipped) have approximately 0.3 mm radius.
- Series 342:** IP65 Digimatic micrometers.
- Equipped with Ratchet Stop for constant measuring force.



342-251-30

112-201

### SPECIFICATIONS

Metric				
Order No.	Range (mm)	Resolution (mm)	Maximum permissible error $J_{MPE}$ ( $\mu$ m)	Point
Digimatic (LCD) (With carbide tip)				
342-251-30	0 - 25	0.001	$\pm 2$	15°
342-252-30	25 - 50			
342-253-30	50 - 75			
342-254-30*	75 - 100		$\pm 3$	30°
342-261-30	0 - 25			
342-262-30	25 - 50			
342-263-30	50 - 75	$\pm 3$		
342-264-30*	75 - 100			

\* Made to order.

Metric				
Order No.	Range (mm)	Graduation (mm)	Maximum permissible error $J_{MPE}$ ( $\mu$ m)	Point
Analog				
112-153	0 - 25	0.01	$\pm 3$	15°
112-154	25 - 50			
112-155	50 - 75			
112-156	75 - 100		$\pm 4$	30°
112-201	0 - 25			
112-202	25 - 50			
112-203	50 - 75	$\pm 4$		
112-204	75 - 100			
Analog (With carbide tip)				
112-165	0 - 25	0.01	$\pm 3$	15°
112-166	25 - 50			
112-167	50 - 75			
112-168	75 - 100		$\pm 4$	30°
112-213	0 - 25			
112-214	25 - 50			
112-215	50 - 75	$\pm 4$		
112-216	75 - 100			
Mechanical counter model				
142-153	0 - 25		$\pm 3$	15°
142-201				30°

Note: For functional details of **series 342** 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)	Point
Digimatic (LCD) (With carbide tip)				
342-351-30	0 - 1	0.00005 in/ 0.001 mm	$\pm 0.0001$	15°
342-352-30	1 - 2			
342-353-30	2 - 3			
342-354-30	3 - 4		$\pm 0.00015$	30°
342-361-30	0 - 1			
342-362-30	1 - 2			
342-363-30	2 - 3	$\pm 0.00015$		
342-364-30	3 - 4			

Inch							
Order No.	Range (in)	Graduation (in)	Maximum permissible error $J_{MPE}$ (in)	Point			
Analog							
112-177	0 - 1	0.001	$\pm 0.00015$	15°			
112-178	1 - 2						
112-225	0 - 1						
112-226	1 - 2		$\pm 0.00015$	30°			
Analog (With carbide tip)							
112-189	0 - 1						
112-190	1 - 2	$\pm 0.00015$	15°				
112-191	2 - 3						
112-237	0 - 1						
112-238	1 - 2	$\pm 0.00015$	30°				
Mechanical counter model							
142-177	0 - 1		$\pm 0.00015$	15°			
142-225				30°			

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).

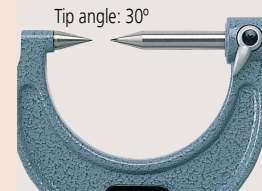
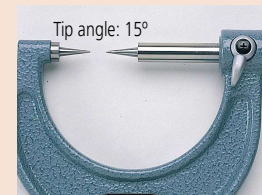


These marks indicate that a product has successfully passed IP65-level testing, which is carried out by the independent German certification organization TÜV.



### 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

- 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 to 25 mm (0 to 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**
- U-WAVE-T** dedicated connection cable  
160 mm: **02AZD790B**  
For foot switch: **02AZE140B**  
Refer to page A-27 for details.

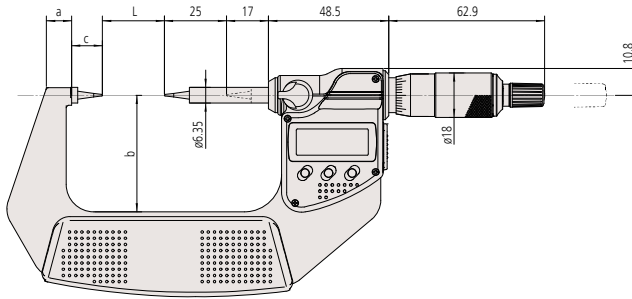
### Wireless Data Output **U-WAVE**

- U-WAVE-TM** 264-622 (IP67 type)  
264-623 (Buzzer type)
- U-WAVE-TMB** Transmitter  
**Mitutoyo Bluetooth® U-WAVE**  
264-626 (IP type)  
264-627 (Buzzer type)  
Refer to page A-16 for details.
- Connecting unit for **U-WAVE-TM/TMB**  
**02AZF310** (IP67/buzzer type common specification)  
Refer to pages A-16 and A-18 for details.

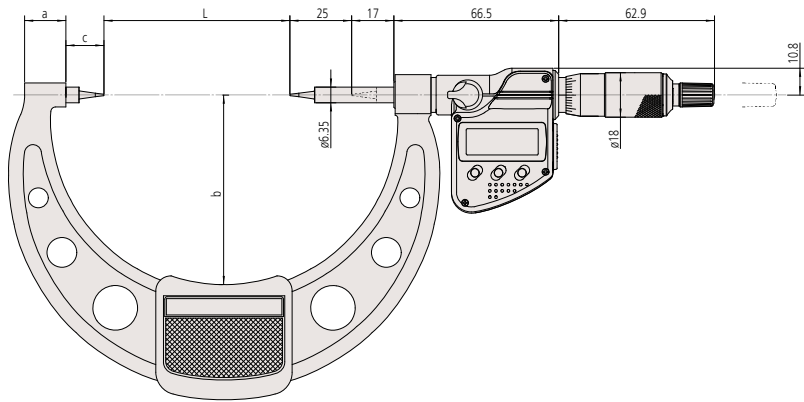
## DIMENSIONS

Unit: mm

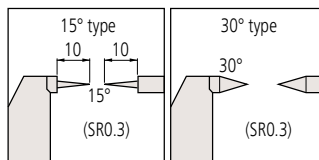
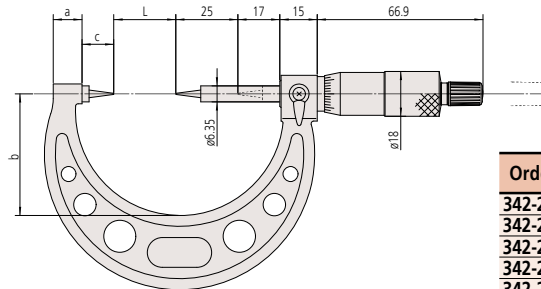
### Digimatic models up to 75 mm measuring range



### Digimatic models over 75 mm measuring range



### Analog models measuring range



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

\* Digimatic type: thickness over heat shield