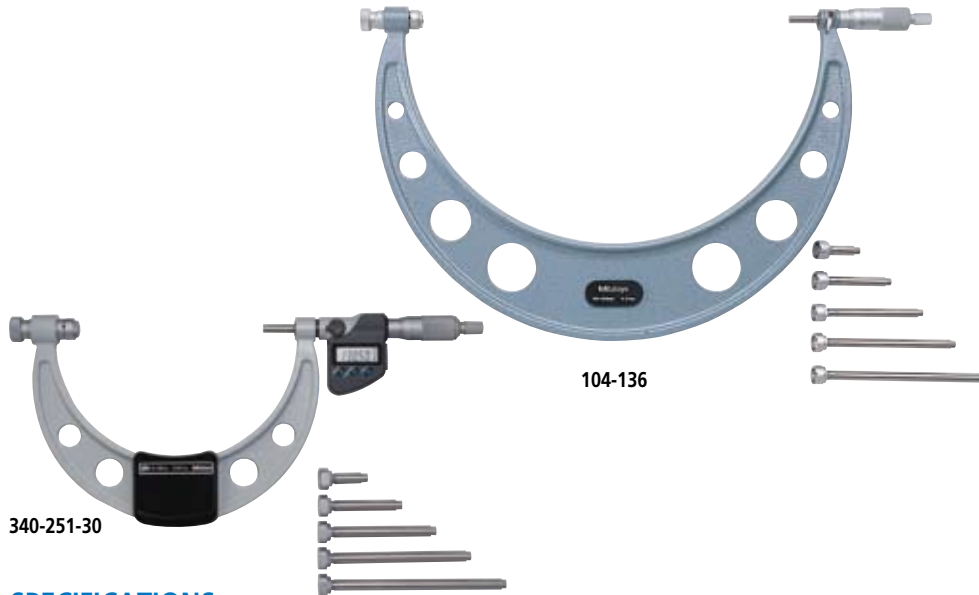


# Micrometer

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

## Outside Micrometers SERIES 340, 104 — with Interchangeable Anvils

- Wide measuring range with interchangeable anvils.
- Measuring face of the spindle is carbide tipped (standard model).
- IP 65 water/dust protection (series 340).  
\* Models with a measuring range up to 300mm.
- Equipped with Ratchet Stop for constant measuring force.



### SPECIFICATIONS

Metric						
Order No.	Range	Resolution	Interchangeable anvils	Setting Standard		Micrometer head stroke
				Qty	Size	
Digimatic (LCD)						
340-251-30	0 - 150mm	0.001mm	6pcs.	5	25-125mm	25mm
340-252-30	150 - 300mm			6	150-275mm	
340-520	300 - 400mm		4pcs.	4	300-375mm	
340-521	400 - 500mm				400-475mm	
340-522	500 - 600mm				500-575mm	
340-523	600 - 700mm				600-675mm	
340-524	700 - 800mm				700-775mm	
340-525	800 - 900mm				800-875mm	
340-526	900 - 1000mm				900-975mm	

Metric						
Order No.	Range	Graduation	Interchangeable anvils	Setting Standard		Micrometer head stroke
				Qty	Size	
Analog						
104-171*	0 - 50mm	0.01mm	1pcs.	1	25mm	25mm
104-139A	0 - 100mm		4pcs.	3	25-75mm	
104-135A	0 - 150mm		6pcs.	5	25-125mm	
104-161A	50 - 150mm		4pcs.	4	50-125mm	
104-140A	100 - 200mm				100-175mm	
104-136A	150 - 300mm		6pcs.	6	150-275mm	
104-141A	200 - 300mm				200-275mm	
104-142A	300 - 400mm				300-375mm	
104-143A	400 - 500mm				400-475mm	
104-144A	500 - 600mm				500-575mm	
104-145A	600 - 700mm		4pcs.	4	600-675mm	
104-146A	700 - 800mm				700-775mm	
104-147A	800 - 900mm				800-875mm	
104-148A	900 - 1000mm				900-975mm	

\* The frame is fitted with a heat shield.



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 340)

- 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:  
0.6µm/ .000024" for models up to 300mm/ 12"  
1.0µm/ .00004" for models over 300mm/ 12"

Parallelism:  
2µm/ .00008" for models up to 75mm/ 3"  
3µm/ .00012" for models up to 150mm/ 6"  
(2+R/100)µm for models over 150mm,  
R=max. range (mm)  
Fraction rounded up  
±[.00008" + .00004 (R/4)]" For models over 6"  
R= max. range (inch)  
Fraction rounded up  
Accuracy:  
±(4+R/75)µm, R = max. range (mm)  
±[.00016" + .00004(R/3)]" R = max. range (inch)  
(excluding quantizing error for digital models)  
Fraction rounded up  
Excluding quantizing error

Inch/Metric						
Order No.	Range	Resolution	Interchangeable anvils	Setting Standard		Micrometer head stroke
				Qty	Size	
Digimatic (LCD)						
340-251-30	0 - 6"	.00005"/ 0.001mm	6pcs.	5	1" - 5"	1"
340-252-30	6" - 12"	.0001"/ 0.001mm		6	6" - 11"	
340-720	12" - 18"				12" - 17"	
340-721	18" - 24"				18" - 23"	
340-722	24" - 30"				24" - 29"	
340-723	30" - 36"				30" - 35"	

Inch						
Order No.	Range	Interchangeable anvils	Graduation	Setting Standard		Micrometer head stroke
				Qty	Size	
Analog						
104-165	0 - 2"	1pcs.	.0001"	1	1"	25mm
104-149	0 - 4"	4pcs.	.001"	3	1" - 3"	
104-137	0 - 6"	6pcs.		5	1" - 5"	
104-162	2" - 6"	4pcs.		4	2" - 5"	
104-150	4" - 8"				4" - 7"	
104-138	6" - 12"	6pcs.		6	6" - 11"	
104-151	8" - 12"	4pcs.		4	8" - 11"	
104-152	12" - 16"				12" - 15"	
104-201	12" - 18"	6pcs.		6	12" - 17"	
104-153	16" - 20"	4pcs.		4	16" - 19"	
104-202	18" - 24"	6pcs.		6	18" - 23"	
104-154	20" - 24"	4pcs.		4	20" - 23"	
104-155	24" - 28"				24" - 27"	
104-203	24" - 30"	6pcs.		6	24" - 29"	
104-156	28" - 32"	4pcs.		4	28" - 31"	
104-204	30" - 36"	6pcs.		6	30" - 35"	
104-157	32" - 36"	4pcs.		4	32" - 35"	
104-158	36" - 40"				36" - 39"	
104-205	36" - 42"	6pcs.		6	36" - 41"	

## Battery for series 340

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

Battery life: Approx. 2.4 years under normal use  
(for series 340-2XX)  
Approx. 1.8 years under normal use  
(for series 340-5XX, 340-7XX)

Length standard: Electromagnetic rotary sensor (for series 340)

Standard accessories: Spanner (301336), 1 pc

(for maximum measuring range up to 300mm (12"))

Spanner (200154), 1 pc

(for maximum measuring range 400mm (16") or over)

## Optional accessories

Connecting cables for

**340-251-30 & 340-252-30, 340-351-30 & 340-252-30**

1m: **05CZA662**

2m: **05CZA663**

**USB Input Tool Direct**

USB-ITN-B (2m): **06ADV380B**

SPC cables for U-WAVE w/ data switch (160mm):

**02AZD790B**

For foot switch: **02AZE140B**

Connecting cables for

**340-520/1/2/3/4/5/6, 340-720/1/2/3 models**

Recommended cables:

L-Type (does not interfere with operating the thimble.)

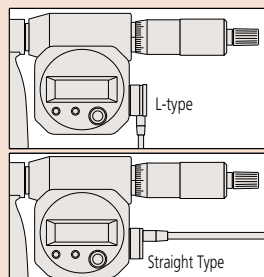
1m: **04AZB512**

2m: **04AZB513**

Straight type (may interfere with operating the thimble.)

1m: **959149**

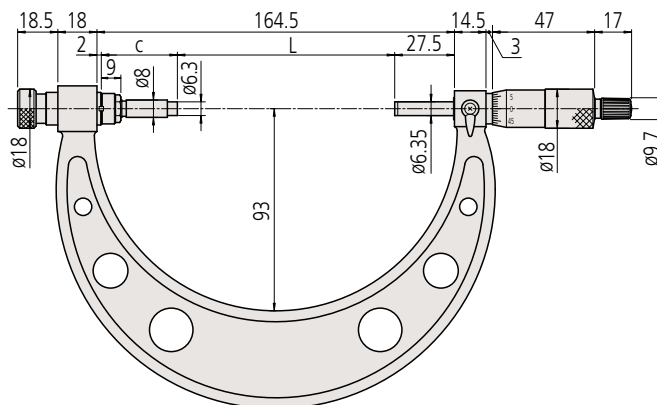
2m: **959150**



## DIMENSIONS

104-135A

Unit: mm

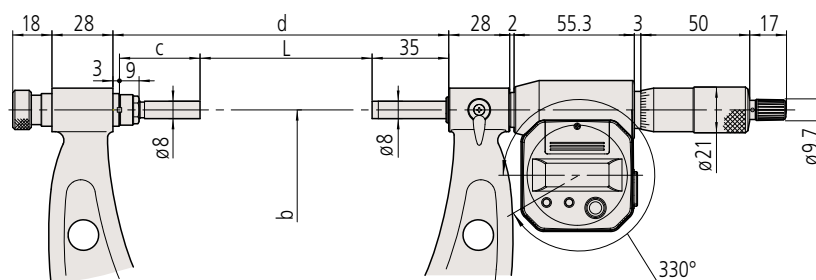


### Interchangeable anvil

		L : Range (mm)					
Range	0 to 150mm models	0 - 25	25 - 50	50 - 75	75 - 100	100 - 125	125 - 150
Range	150 to 300mm models	150 - 175	175 - 200	200 - 225	225 - 250	250 - 275	275 - 300
Order No.		<b>303950</b>	<b>303951</b>	<b>303952</b>	<b>303953</b>	<b>303954</b>	<b>303955</b>
c: Overall length (mm)		135	110	85	60	35	10
Interchangeable anvil		M1	M2	M3	M4	M5	M6

		L : Range (mm)			
Range	300 to 400mm models	300 - 325	325 - 350	350 - 375	375 - 400
Range	400 to 500mm models	400 - 425	425 - 450	450 - 475	475 - 500
Range	500 to 600mm models	500 - 525	525 - 550	550 - 575	575 - 600
Range	600 to 700mm models	600 - 625	625 - 650	650 - 675	675 - 700
Range	700 to 800mm models	700 - 725	725 - 750	750 - 775	775 - 800
Range	800 to 900mm models	800 - 825	825 - 850	850 - 875	875 - 900
Range	900 to 1000mm models	900 - 925	925 - 950	950 - 975	975 - 1000
Order No.		<b>304001</b>	<b>304002</b>	<b>304003</b>	<b>304004</b>
c: Overall length (mm)		87	62	37	12
Interchangeable anvil		M3	M4	M5	M6

### Over 400mm up to 1000mm



		L : Range (mm)				b	d
Range	300 to 400mm models	300 - 325	325 - 350	350 - 375	375 - 400	224	425
Range	400 to 500mm models	400 - 425	425 - 450	450 - 475	475 - 500	273	525
Range	500 to 600mm models	500 - 525	525 - 550	550 - 575	575 - 600	332	625
Range	600 to 700mm models	600 - 625	625 - 650	650 - 675	675 - 700	382	725
Range	700 to 800mm models	700 - 725	725 - 750	750 - 775	775 - 800	430	825
Range	800 to 900mm models	800 - 825	825 - 850	850 - 875	875 - 900	480	925
Range	900 to 1000mm models	900 - 925	925 - 950	950 - 975	975 - 1000	530	1025
Order No.		<b>304001</b>	<b>304002</b>	<b>304003</b>	<b>304004</b>		
c: Overall (mm)		87	62	37	12		
Interchangeable anvil		M3	M4	M5	M6		