

Inside Micrometers

Tubular Inside Micrometers SERIES 133 — Single-Rod Type

- Standard Single-Rod Type inside micrometer.
- Carbide measuring faces.
- The sleeve is rotated to adjust the reference point adjustment when setting to a length standard.
- Optional Setting Rings (nominal size below 300 mm), CERA Inside Micro Checker and Gauge Block Accessory Sets are available as reference gages datum adjustment. (Refer to pages C-28, C-52, and E-17 to E-20 for details)



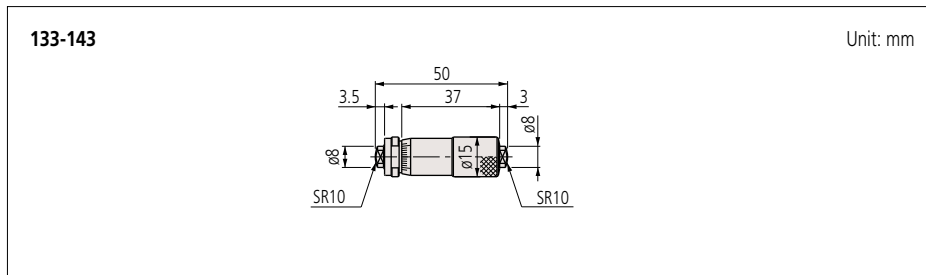
133-143

SPECIFICATIONS

Metric		Individual	
Order No.	Range (mm)	Graduation (mm)	Maximum permissible error J_{MPE} (μm)
133-143	50 - 75	0.01	± 3

Inch		Individual	
Order No.	Range (in)	Graduation (in)	Maximum permissible error J_{MPE} (in)
133-223	2 - 3	0.001	± 0.00015

DIMENSIONS



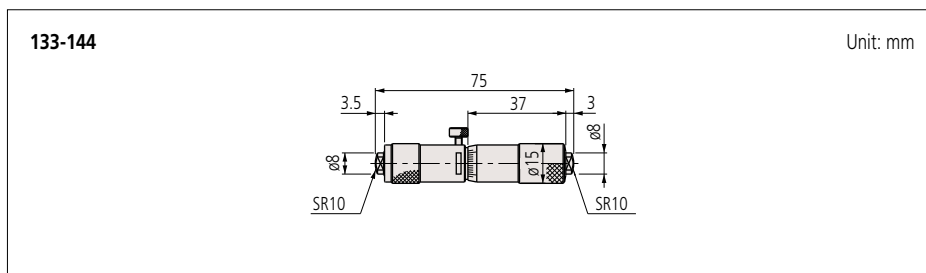
133-144

SPECIFICATIONS

Metric		Individual	
Order No.	Range (mm)	Graduation (mm)	Maximum permissible error J_{MPE} (μm)
133-144	75 - 100	0.01	± 4

Inch		Individual	
Order No.	Range (in)	Graduation (in)	Maximum permissible error J_{MPE} (in)
133-224	3 - 4	0.001	± 0.0002

DIMENSIONS



Measurement example



Micrometer Set



133-902

133-901 (Metric)

- Range: 50 - 150 mm (4 heads/set)
- Models included:
133-143 133-144
133-145 133-146
 with fitted case

133-902 (Metric)

- Range: 50 - 300 mm (10 heads/set)
- Models included:
133-143 133-144
133-145 133-146
133-147 133-148
133-149 133-150
133-151 133-152
 with fitted case

133-903 (Inch)

- Range: 2 - 6 in (4 heads/set)
- Models included:
133-223 133-224
133-225 133-226
 with fitted case

133-904 (Inch)

- Range: 2 - 12 in (10 heads/set)
- Models included:
133-223 133-224
133-225 133-226
133-227 133-228
133-229 133-230
133-231 133-232
 with fitted case



133-152

SPECIFICATIONS

Metric Individual				Inch Individual			
Order No.	Range (mm)	Graduation (mm)	Maximum permissible error J_{MPE} (μm)	Order No.	Range (in)	Graduation (in)	Maximum permissible error J_{MPE} (in)
133-145	100 - 125	0.01	± 5	133-225	4 - 5	0.001	± 0.00025
133-146	125 - 150			133-226	5 - 6		
133-147	150 - 175			133-227	6 - 7		
133-148	175 - 200			133-228	7 - 8		
133-149	200 - 225		133-229	8 - 9			
133-150	225 - 250		133-230	9 - 10	± 0.0003		
133-151	250 - 275		133-231	10 - 11			
133-152	275 - 300		133-232	11 - 12			
133-153	300 - 325		± 7				
133-154	325 - 350						
133-155	350 - 375		± 8				
133-156	375 - 400						
133-157	400 - 425		± 9				
133-158	425 - 450						
133-159	450 - 475		± 10				
133-160	475 - 500						
133-161	500 - 525	± 11					
133-162	525 - 550						
133-163	550 - 575	± 12					
133-164	575 - 600						
133-165	600 - 625	± 13					
133-166	625 - 650						
133-167	650 - 675	± 14					
133-168	675 - 700						
133-169	700 - 725	± 15					
133-170	725 - 750						
133-171	750 - 775	± 16					
133-172	775 - 800						
133-173	800 - 825						
133-174	825 - 850						
133-175	850 - 875						
133-176	875 - 900						
133-177	900 - 925						
133-178	925 - 950						
133-179	950 - 975						
133-180	975 - 1000						

DIMENSIONS

133-145 to 133-180

Unit: mm

Order No.	L ₁	L ₆	L ₇
133-145	100	5	3
133-146	125	5	3
133-147	150	18	15
133-148	175	18	15
133-149	200	18	15
⋮	⋮	⋮	⋮
⋮	⋮	⋮	⋮
133-180	975	18	15