



Micrometers

Measurement example



Mechanism

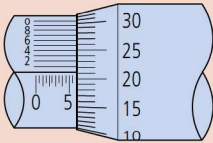
Ratchet stop type



Friction thimble type



Micrometer with Vernier scale (graduation: 0.001 mm)



Outside Micrometers SERIES 102

- Standard analog micrometer. Thanks to a heat-insulated frame, it is resistant to heat and therefore delivers accurate measurement results.
- Measuring faces: Carbide tipped.
- Tapered frame (behind anvil) for measuring in hard-to-reach places.
- Equipped with Ratchet Stop for constant measuring force.



Ratchet stop
102-327-10

SPECIFICATIONS

Inch							
Order No.	Range (in)	Graduation (in)	Measuring force (N)	Accuracy* (in)	Flatness (in)	Parallelism (in)	Constant measuring force
102-327-10	0 - 1	0.0001	5 - 10	±0.0001	0.000024	0.00008	Ratchet stop
102-329-10							Friction thimble
102-328-10	Ratchet stop						
102-330-10	Friction thimble						
102-331-10	2 - 3	±0.00015	0.00012	Ratchet stop			
102-332-10	3 - 4			Ratchet stop			

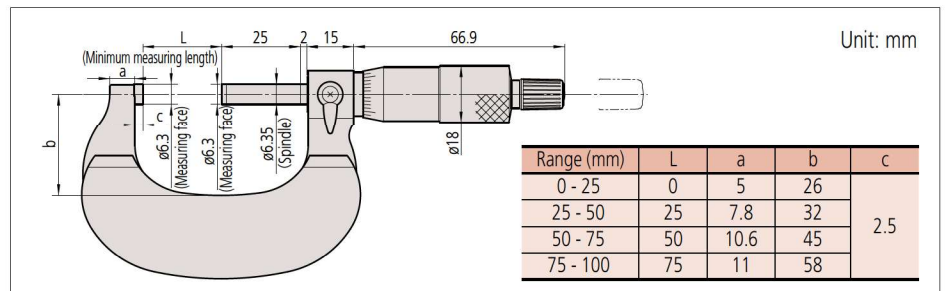
Metric							
Order No.	Range (mm)	Graduation (mm)	Measuring force (N)	Accuracy* (μm)	Flatness (μm)	Parallelism (μm)	Constant measuring force
102-301	0 - 25	0.01	5 - 10	±2	0.6	2	Ratchet stop
102-302	25 - 50						
102-303	50 - 75						
102-304	75 - 100			±3		3	

Metric With Vernier scale							
Order No.	Range (mm)	Graduation (mm)	Measuring force (N)	Accuracy* (μm)	Flatness (μm)	Parallelism (μm)	Constant measuring force
102-311	0 - 25	0.001	5 - 10	±1	0.3	1	Ratchet stop
102-313				±2			Friction thimble
102-312	25 - 50			±2			Ratchet stop

Metric Micrometer set		
Order No.	Range (mm)	Models included
102-911-40	0 - 100 (Four micrometers per set)	<ul style="list-style-type: none"> • 102-301 • 102-302 • 102-303 • 102-304 • 3 micrometer standards

* E_{MPE} (ISO 3611:2023 and ASME B89.1.13-2013)

DIMENSIONS



Micrometers

Ratchet Thimble Micrometer SERIES 102 — Outside Micrometers

- The ratchet thimble mechanism enables easy one-handed operation, useful for inspecting samples during the manufacturing process.
- Ratchet function works both from the thimble and the speeder.
- Tapered frame (behind anvil) for measuring in hard-to-reach places.
- Heat-insulated frame.
- Measuring faces: Carbide tipped.



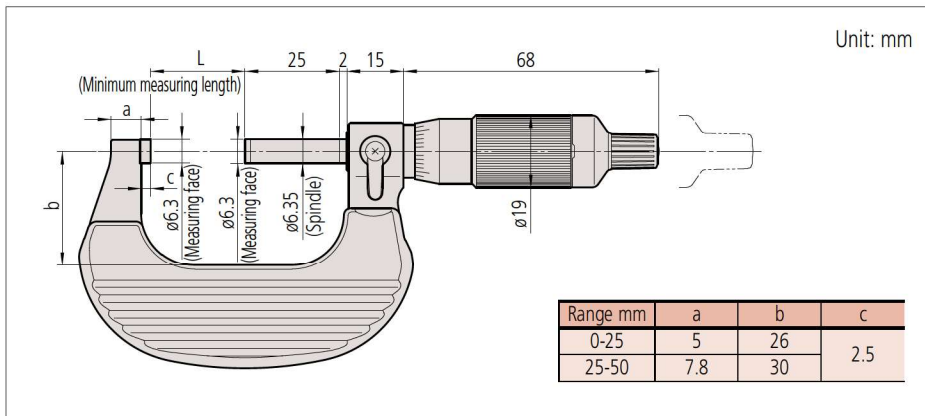
102-717

SPECIFICATIONS

Inch							
Order No.	Range (in)	Graduation (in)	Measuring force (N)	Accuracy* (in)	Flatness (in)	Parallelism (in)	Mass (g)
102-717	0 - 1	0.0001	5 - 10	±0.0001	0.000024	0.00008	180
102-718	1 - 2						270
Metric							
Order No.	Range (mm)	Graduation (mm)	Measuring force (N)	Accuracy* (μm)	Flatness (μm)	Parallelism (μm)	Mass (g)
102-701	0 - 25	0.01	5 - 10	±2	0.6	2	180
102-707		0.001					270
102-702	25 - 50	0.01	5 - 10	±2	0.6	2	180
102-708		0.001					270

* EMPE (ISO 3611:2023 and ASME B89.1.13-2013)

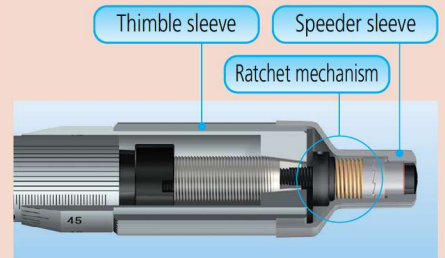
DIMENSIONS



Measurement example



Internal structure



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