

Outside Micrometers

SERIES 102



FEATURES

- Heat-insulated frame, tapered (on the anvil side) for hard-to-reach places.
- Carbide-tipped measuring faces.
- Provided with a standard except for 25mm (1") model.

SPECIFICATIONS

Metric	With ratchet stop		
Range	Order No.	Graduation	Accuracy
0 - 25mm	102-301	0.01mm	$\pm 2\mu\text{m}$
	102-307	0.001mm	$\pm 2\mu\text{m}$
25 - 50mm	102-302	0.01mm	$\pm 2\mu\text{m}$
	102-308	0.001mm	$\pm 2\mu\text{m}$
50 - 75mm	102-303	0.01mm	$\pm 2\mu\text{m}$
75 - 100mm	102-304	0.01mm	$\pm 3\mu\text{m}$

Inch	With ratchet stop		
Range	Order No.	Graduation	Accuracy
0 - 1"	102-321	.001"	$\pm .0001"$
	102-327	.0001"	$\pm .0001"$
1" - 2"	102-322	.001"	$\pm .0001"$
	102-328	.0001"	$\pm .0001"$
2" - 3"	102-323	.001"	$\pm .0001"$
3" - 4"	102-324	.001"	$\pm .00015"$

Note: 0.001mm (.0001") reading is obtained with vernier.

Metric	With ratchet thimble		
Range	Order No.	Graduation	Accuracy
0 - 25mm	102-305	0.01mm	$\pm 2\mu\text{m}$
	102-309	0.001mm	$\pm 2\mu\text{m}$
25 - 50mm	102-306	0.01mm	$\pm 2\mu\text{m}$

Inch	With ratchet thimble		
Range	Order No.	Graduation	Accuracy
0 - 1"	102-325	.001"	$\pm .0001"$
	102-329	.0001"	$\pm .0001"$
1" - 2"	102-326	.001"	$\pm .0001"$
	102-330	.0001"	$\pm .0001"$

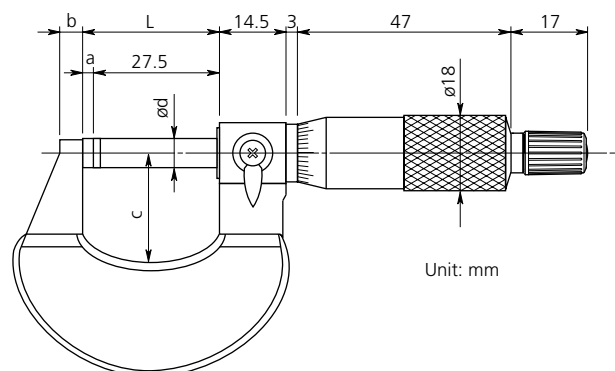
Note: 0.001mm (.0001") reading is obtained with vernier.

Measuring faces

- Flatness:
 - 0.6 μm (.000024") for models of 0.01mm (.001") reading
 - 0.3 μm (.000012") for models of 0.001mm (.0001") reading
- Parallelism:
 - 1 μm (.00004") for 25mm (1") model
 - 2 μm (.00008") for models up to 100mm (4")

Metric	Micrometer set	
Range	Order No.	Assortment of micrometers
0 - 100mm (4 mikes/set)	102-911	102-301 102-302 102-303 102-304 3 micrometer standards

Dimensions



Range	L	a	b	c	d
0 - 25mm	30.3	2.8	5	26	6.35
25 - 50mm	55.3	2.8	8	32	6.35
50 - 75mm	80.3	2.8	9	45	6.35
75 - 100mm	105.3	2.8	10	58	6.35

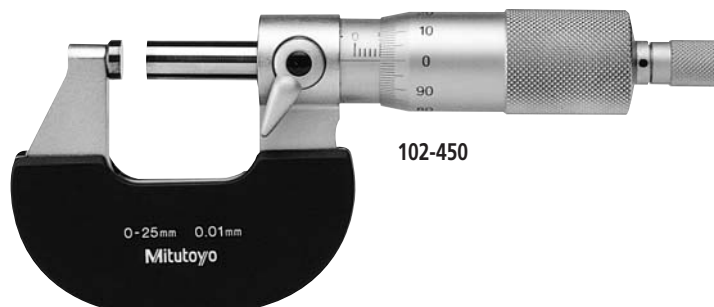
Note: The shape of the thimble changes on the model with ratchet thimble.

Quick-Setting Outside Micrometers

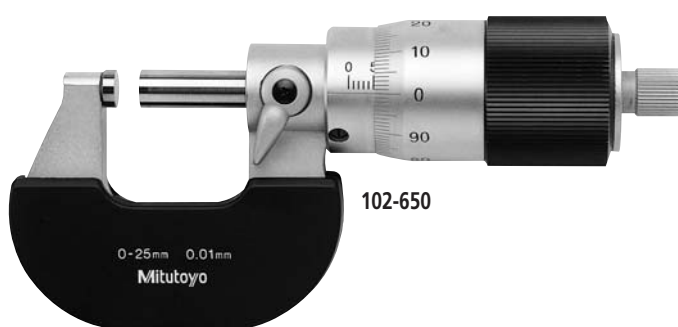
SERIES 293, 102



293-151-30



102-450



102-650

FEATURES

- 1mm spindle thread pitch for quick setting.
- The measurement can be read directly from the thimble due to the 100 step graduation.
- Carbide-tipped measuring faces.
- With Ratchet Thimble for constant force. (Ratchet Stop is also available for the 102 series.)
- Provided with a standard except for 25mm (1") model.
- The 293 series is provided with SPC output.

SPECIFICATIONS

Metric Digital model with ratchet stop

Range	Order No.	Graduation	Accuracy
0 - 25mm	293-151-30	0.001mm	±1μm
25 - 50mm	293-152-30	0.001mm	±1μm
50 - 75mm	293-153-30	0.001mm	±1μm
75 - 100mm	293-154-30	0.001mm	±2μm

Excluding quantizing error

Metric With ratchet stop

Range	Order No.	Graduation	Accuracy
0 - 25mm	102-450	0.01mm	±2μm
25 - 50mm	102-451	0.01mm	±2μm

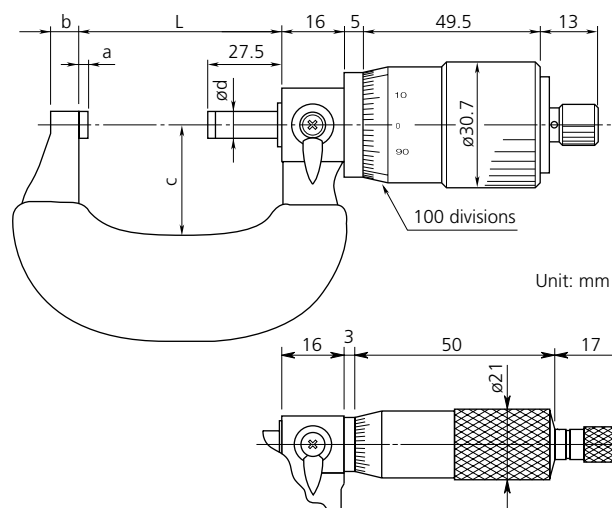
Metric With ratchet thimble

Range	Order No.	Graduation	Accuracy
0 - 25mm	102-650	0.01mm	±2μm
25 - 50mm	102-651	0.01mm	±2μm
50 - 75mm	102-652	0.01mm	±2μm
75 - 100mm	102-653	0.01mm	±2μm

Measuring faces

- Flatness: 0.6μm
- Parallelism: 2μm

Dimensions



Unit: mm

Range	L	a	b	c	d
0 - 25mm	30	2.5	5	26	8
25 - 50mm	55	2.5	8	32.5	8
50 - 75mm	80	2.5	9	45	8
75 - 100mm	105	2.5	9	58	8

Note: The shape of the thimble changes on the digital model.

