

Digital Outside Micrometers

SERIES 193

FEATURES

- Mechanical digit counter with 0.01mm or .001" reading for quick and error-free reading.
- With a standard bar except for 0-25mm / 0 - 1" model.
- Supplied in fitted plastic case.



193-211

SPECIFICATIONS

Metric _____ With ratchet stop

Range	Graduation	Order No.	Accuracy
0 - 25mm	0.01mm	193-101	$\pm 2\mu\text{m}$
	0.001mm	193-111*	$\pm 2\mu\text{m}$
25 - 50mm	0.01mm	193-102	$\pm 2\mu\text{m}$
	0.001mm	193-112*	$\pm 2\mu\text{m}$
50 - 75mm	0.01mm	193-103	$\pm 2\mu\text{m}$
	0.001mm	193-113*	$\pm 2\mu\text{m}$
75 - 100mm	0.01mm	193-104	$\pm 3\mu\text{m}$
	0.001mm	193-114*	$\pm 3\mu\text{m}$

*0.001mm reading is obtained with vernier.

Metric _____ Micrometer sets

Range	Order No.	Included in set
0 - 75mm (3 pcs./set)	193-901	• 193-101, 193-102, 193-103 • 2 micrometer standards
0 - 75mm (3 pcs./set)	193-915	• 193-111, 193-112, 193-113, • 2 micrometer standards
0 - 100mm (4 pcs./set)	193-902	• 193-101, 193-102, 193-103, 193-104 • 3 micrometer standards
0 - 100mm (4 pcs./set)	193-916	• 193-111, 193-112, 193-113, 193-114 • 3 micrometer standards

Inch _____ With friction thimble

Range	Graduation	Order No.	Accuracy
0 - 1"	.0001"	193-211*	$\pm .0001"$
1 - 2"	.0001"	193-212*	$\pm .0001"$

*.0001" reading is obtained with vernier.

Inch _____ With ratchet stop

Range	Graduation	Order No.	Accuracy
2 - 3"	.0001"	193-213*	$\pm .0001"$
3 - 4"	.0001"	193-214*	$\pm .00015"$

*.0001" reading is obtained with vernier.

Inch _____ Micrometer sets

Range	Order No.	Included in set
0 - 3" (3 pcs./set)	193-923	• 193-211, 193-212, 193-213 • 2 micrometer standards

Technical Data

Counter reading: 0.01mm or .001"
 Graduation: 0.01mm, 0.001mm, .001" or .0001"
 Flatness: 0.6 μm / .000024"
 Parallelism: (2+R/100) μm , R=max. range (mm)
 [.00008" + .00004" (L/4)]", L= max. range (inch)
 Measuring faces: Carbide tipped



193-916

DIMENSIONS AND MASS

Models up to 100mm / 4"

Unit: mm

Range	L	a	b	c	Mass (g)
0 - 25mm / 0 - 1"	30	2.5	5	26	224
25 - 50mm / 1 - 2"	55	2.5	8	32	275
50 - 75mm / 2 - 3"	80	2.5	9	45	379
75 - 100mm / 3 - 4"	105	2.5	9	57	489

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