# Micrometer

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

## **Indicating Micrometers SERIES 510**

- Suited to the measurement of low-volume manufactured parts.
- Easy to use when operating one-handed due to retractable anvil.
- In the 25 mm measuring range, the model lineup offers a choice of left or right positioning of the anvil-retraction button.
- Greatly improved accuracy: indication error and graduation of 1 µm.
- IP protection level: 54, coolant-splash resistant during grinding process.
- Hard-coated crystal: enhanced oil and scratch
- Indicator scale is large and easy to read.
- All models come with the zero position adjustment feature.
- Measuring faces: Carbide.



#### **Technical Data**

- Flatness: 0.3 µm/0.000012 in
- $\bullet$  Parallelism: 0.6  $\mu m/0.000024$  in for models up to 50 mm/2 in  $1 \mu m/0.00004$  in for models over 50 mm/2 in
- Spindle feed error: 3 μm/0.00015 in
  Dispersion of indication: 0.4 μm/0.00002 in
- Dial indication accuracy: 1 μm/0.00005 in

### **Standard Accessories**

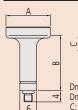
Reference bar, 1 pc.

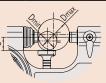
(except for measuring range 0 to 25 mm (0 to 1 in) models) Spanner (200154), 1 pc.

## **Workpiece Stop (optional)**

- Produces more stable measurement.
- Three types are available to suit workpieces of different







Dmin: Minimum measurable diameter Dmax: Maximum measurable diameter C: Distance from the center of the workpiece to the upper surface of the workpiece stop

• Order No <b>510-121</b> , <b>!</b>	510-141, 510	-131, 510-15	i <b>1</b> Unit: r			
	Dmin Dmax					
Workpiece stop A	N/A	N/A	N/A			
Workpiece stop B	4	16	5.0			
Workpiece stop C	15	25	10.5			
• 510-122 and 510-132						
	Dmin	Dmax	С			
Workpiece stop A	25	37	15.5			
Workpiece stop B	30	42	18.0			
Workpiece stop C	41	50	23.5			
• 510-123 and 510-	• 510-123 and 510-133					
	Dmin	Dmay				

	Dmin	Dmax	C
Workpiece stop A	50	61	27.5
Workpiece stop B	54	66	30.0
Workpiece stop C	65	75	35.5

• 510-124 and 510-134						
	Dmin	Dmax	С			
Workpiece stop A	75	87	40.5			
Workpiece stop B	80	92	43.0			
Workpiece stop C	91	100	48.2			







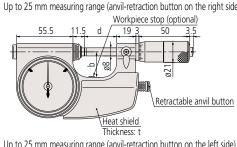


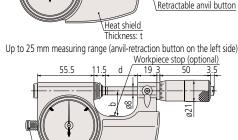
## **SPECIFICATIONS**

Metric	_						
Order No	. Range (mm)	Indicating range (mm)	Graduation (mm)	Dial graduation (mm)	Measuring force (N)	Anvil retraction button	Mass (g)
510-121	0 - 25					Right side	520
510-141	0-23						530
510-122	25 - 50	±0.06	0.001	0.001	5 - 10	Left side	670
510-123	50 - 75						820
510-124	75 - 100						970

Inch	ı						
Order No.	Range (in)	Indicating range (in)	Graduation (in)	Dial graduation (in)	Measuring force (N)	Anvil retraction button	Mass (g)
510-131	0 - 1					Right side	520
510-151	0 - 1						530
510-132	1 - 2	±0.0023	0.0001	0.00005	5 - 10	Left side	670
510-133	2 - 3						820
510-134	3 - 4						970

## **DIMENSIONS**





Heat shield Thickness: t

de)	Unit: mm	١
	Over 25 mm measuring range (anvil-retraction button on the left side) $$	
n e)	Retractable anvil button Heat shield Thickness: t	

Range (mm)	b	d	t
0 - 25	25	31.5	16.4
25 - 50	38	56.5	
50 - 75	50	81.5	16
75 - 100	63	106.5	

Retractable anvil button