TESA TECHNOLOGY

brown & sharpe INSIZE Starrett Mitutoyo

For more information on Precision Measuring Instruments, see page 2325.

Dial Indicators

- Conform to American Gage Design (AGD) standards

If tolerances are bilateral, a balanced dial is preferred. If tolerance is unilateral, a continuous dial is preferred.

Balanced Reading 2ZUH4

Continuous Reading 408R60

Reverse-Reading Continuous Reading 409U13

Range	Graduations	Dial Size	Dial Reading	Range per Revolution	Brand	Item No.
Balanced Reading						
AGD 1						
0 in to 0.035 in	0.0005 in	2.25 in	0-20-0	0.35 in	Tesa Brown & Sharpe	**45JK43**
	0.001 in	2.25 in	0-50-0	0.35 in	Tesa Brown & Sharpe	**45JK42**
0 in to 0.05 in	0.001 in	1.69 in	0-5-0	0.05 in	Tesa Brown & Sharpe	**45JK34**
0 in to 0.2 in	0.0005 in	2.25 in	0-5-0	0.2 in	Tesa Brown & Sharpe	**45JK37**
	0.001 in	1.58 in	0-10	0.02 in	Insize	**409L49**
0 in to 0.25 in	0.001 in	1.69 in	0-50-0	0.1 in	Starrett	**2ZUH4**
	0.001 in	1.69 in	0-50-0	0.25 in	Tesa Brown & Sharpe	**45JK40**
	0.001 in	40 mm	0-50-0	0.1 in	Mitutoyo	**6NRA5**
AGD 2						
0 in to 0.025 in	0.0001 in	57 mm	0-5-0	0.01 in	Mitutoyo	**6NRA7**
0 in to 0.05 in	0.0001 in	57 mm	0-5-0	0.01 in	Mitutoyo	**6NRA9**
0 in to 0.2 in	0.0001 in	2.25 in	0-5-0	0.01 in	Starrett	**4CER5**
0 in to 0.25 in	0.001 in	2.25 in	0-50-0	0.1 in	Starrett	**4CEP9**
0 in to 0.5 in	0.001 in	2.25 in	0-50-0	0.1 in	Starrett	**2ZUH7**
0 in to 1 in	0.001 in	2.25 in	0-50-0	0.1 in	Starrett	**4CER3**
	0.001 in	57 mm	0-50-0	0.1 in	Mitutoyo	**6NRC1**
0 in to 2 in	0.001 in	2.25 in	0-100	0.1 in	Starrett	**4CER1**
0 to 1 mm	0.001 mm	57 mm	0-100-0	0.2 mm	Mitutoyo	**6NRC3**
0 to 50 mm	0.01 mm	2.25 in	0-100	1 mm	Starrett	**5UAJ3**
Continuous Reading						
AGD 1						
0 in to 0.1 in	0.0005 in	1.58 in	0-50	0.05 in	Insize	**408R46**
	0.001 in	1.58 in	0-100	0.1 in	Insize	**408R45**
0 in to 0.125 in	0.001 in	1.69 in	0-50	0.05 in	Starrett	**6NAW9**
0 in to 0.2 in	0.0005 in	1.58 in	0-50	0.05 in	Insize	**408R48**
	0.001 in	1.58 in	0-100	0.1 in	Insize	**409L46**
	0.001 in	1.66 in	0-100	0.1 in	Insize	**409U02**
0 in to 0.25 in	0.0005 in	1.58 in	0-50	0.05 in	Insize	**408R50**
	0.001 in	1.58 in	0-100	0.1 in	Insize	**408R49**
	0.001 in	1.69 in	0-100	0.1 in	Starrett	**2ZUH5**
	0.001 in	40 mm	0-100	0.1 in	Mitutoyo	**1ARB1**
	0.001 in	40 mm	0-100	0.1 in	Mitutoyo	**6NRA4**
0 in to 1 in	0.0005 in	2.25 in	0-100	1 in	Tesa Brown & Sharpe	**45JK46**
	0.001 in	2.25 in	0-100	1 in	Tesa Brown & Sharpe	**45JK48**
AGD 2						
0 in to 0.025 in	0.0001 in	2.25 in	0-10	0.01 in	Starrett	**2ZUH6**
0 in to 0.05 in	0.0001 in	2.2 in	0-100	0.01 in	Insize	**408R61**
	0.0001 in	57 mm	0-10	0.01 in	Mitutoyo	**4CGP7**
0 in to 0.2 in	0.0001 in	2.25 in	0-10	0.01 in	Starrett	**4CER6**
0 in to 0.25 in	0.0005 in	2.36 in	0-50	0.05 in	Insize	**408R52**
	0.001 in	2.36 in	0-100	0.1 in	Insize	**408R51**
0 in to 0.5 in	0.0005 in	2.36 in	0-50	0.05 in	Insize	**408R54**
	0.001 in	2.25 in	0-100	0.1 in	Starrett	**2ZUH8**
	0.001 in	2.28 in	0-100	0.1 in	Insize	**409L47**
0 in to 1 in	0.0005 in	2.25 in	0-50	0.05 in	Starrett	**4CER7**
	0.0005 in	2.36 in	0-50	0.05 in	Insize	**408R56**
	0.0005 in	57 mm	0-50	0.05 in	Mitutoyo	**4CGP6**
	0.001 in	2.25 in	0-100	0.1 in	Starrett	**2ZUH9**
	0.001 in	2.28 in	0-100	0.1 in	Insize	**409L48**
	0.001 in	2.36 in	0-100	0.1 in	Insize	**408R55**
0 in to 2 in	0.0005 in	2.36 in	0-50	0.05 in	Insize	**408R58**
	0.001 in	2.36 in	0-100	0.1 in	Insize	**408R57**
	0.001 in	57 mm	0-100	1 in	Mitutoyo	**1ARD3**
0 in to 3 in	0.001 in	2.25 in	0-100	0.1 in	Starrett	**4CER2**
0 in to 4 in	0.001 in	2.25 in	0-100	0.1 in	Starrett	**4CER4**
0 to 10 mm	0.01 mm	2.25 in	0-100	1 mm	Starrett	**2ZUJ1**
	0.01 mm	57 mm	0-100	1 mm	Mitutoyo	**16X231**
0 to 25 mm	0.01 mm	2.25 in	0-100	1 mm	Starrett	**2ZUJ2**
0.1 in	0.001 in	1.69 in	0-100	0.1 in	Starrett	**6NAY6**
AGD 3						
0 in to 1.5 in	0.001 in	2.98 in	0-100	0.1 in	Insize	**408R59**
0 in to 2 in	0.001 in	2.98 in	0-100	0.1 in	Insize	**408R60**
AGD 4						
0 in to 3 in	0.001 in	3.27 in	0-100	0.1 in	Insize	**408R70**
	0.001 in	92 mm	0-100	0.1 in	Mitutoyo	**4CGR1**
0 in to 4 in	0.001 in	3.27 in	0-100	0.1 in	Insize	**408R71**
Reverse-Reading Continuous Reading						
AGD 2						
0 in to 1 in	0.001 in	2.36 in	0-100	0.1 in	Insize	**409U13**

Mitutoyo Starrett WESTWARD Mahr INSIZE

Digital Indicators

Digital drop indicators, also called electronic indicators, have a linear encoder with an LCD fixed to a plunger-style stem with a contact point on the end. When the contact point touches the workpiece or feature, the up-and-down movement will be translated to a numeric value on the digital display.

Back Lug 6NRA3

Non-Removable Flat Back 409P02

Removable Flat Back 54GE89

Range	Res.	Accuracy	IP Rating	SPC Output	Variable Resolution	Display Type	Brand	Item No.
Digital Indicators with Back Lug								
0 in to 0.5 in	0.001 mm, 0.00005 in	±0.0001 in	IP42	Yes	No	LCD	Mitutoyo	**4GPY1**
	0.001 mm, 0.00005 in	±0.0001 in	IP42	Yes	No	LCD	Mitutoyo	**6NRA3**
	0.001 mm, 0.00005 in	±0.0001 in	IP42	Yes	No	LCD	Mitutoyo	**41T254**
	0.001 mm, 0.00005 in	±0.0001 in	IP42	Yes	No	LCD	Mitutoyo	**36J702**
	0.001 mm, 0.00005 in	±0.0001 in	IP42	Yes	No	LCD	Mitutoyo	**36J699**
	0.001 mm, 0.00005 in, 0.0001 in, 0.01 mm, 0.0005 in	±0.00012 in	IP42	Yes	No	LCD With Analog Bar	Mitutoyo	**54GE84**
	0.001 mm, 0.0001 in	±0.0001 in	IP42	Yes	No	LCD	Mitutoyo	**1ARJ7**
	0.01 mm, 0.0005 in	±0.0008 in	IP42	Yes	No	LCD	Mitutoyo	**1ARJ6**
	0.01 mm, 0.0005 in	±0.001 in	IP42	Yes	No	LCD	Mitutoyo	**4GPY2**
0 in to 1 in	0.001 mm, 0.00005 in	±0.0001 in; ±0.002 mm	IP54	Yes	Yes	LCD	Starrett	**53VE12**
	0.01 mm, 0.0005 in	0.001 in	—	No	No	—	Westward	**2YNK1**
	0.01 mm, 0.0005 in	±0.001 in	IP67	Yes	No	LCD	Starrett	**53VD81**
0 in to 2 in	0.002 mm, 0.0001 in	±0.0002 in; ±0.004 mm	IP54	Yes	Yes	LCD	Starrett	**53VE16**
0 in to 4 in	0.002 mm, 0.0001 in	±0.0002 in; ±0.004 mm	IP54	Yes	Yes	LCD	Starrett	**53VE20**
0.00002 in to 4 in	0.0002 mm, 0.00002 in, 0.001 mm, 0.00005 in, 0.002 mm, 0.0001 in, 0.005 mm, 0.01 mm, 0.0005 in	±0.002 mm	IP42	Yes	Yes	LCD	Mahr	**45PG20**
Digital Indicators with Non-Removable Flat Back								
0 in to 0.5 in	0.0002 mm, 0.00001 in	±0.00012 in	IP42	Yes	No	LCD With Analog Bar	Mitutoyo	**54GE87**
	0.001 mm, 0.00005 in	±0.00015 in	—	Yes	No	LCD With Analog Bar	Insize	**409P02**
	0.001 mm, 0.00005 in	±2 Res.	IP54	Yes	Yes	Color LCD	Starrett	**53VD66**
0 in to 1 in	0.001 mm, 0.00005 in, 0.0001 in, 0.01 mm, 0.0005 in, 0.001 in	±0.00012 in; ±0.003 mm	IP42	Yes	No	LCD	Mitutoyo	**36J686**
	0.002 mm, 0.0001 in	±2 Res.	IP54	Yes	Yes	Color LCD	Starrett	**53VD65**
	0.01 mm, 0.0005 in	±0.0008 in	IP42	Yes	No	LCD	Mitutoyo	**1ARU1**
0 in to 1.2 in	0.0005 mm, 0.00002 in, 0.001 mm, 0.00005 in, 0.0001 in, 0.0005 in	±0.0015 mm	IP42	Yes	No	LCD	Mitutoyo	**36J694**
0 in to 2.4 in	0.00002 in, 0.001 mm, 0.00005 in, 0.0001 in, 0.0005 in	±0.0025 mm	IP42	Yes	No	LCD	Mitutoyo	**41T256**
0 in to 4 in	0.01 mm, 0.0005 in	±2 Res.	IP54	Yes	Yes	Color LCD	Starrett	**53VD69**
Digital Indicators with Removable Flat Back								
0 in to 0.22 in	0.01 mm, 0.0005 in	±0.0008 in; ±0.020 mm	IP42	Yes	No	LCD	Mitutoyo	**54GE89**
0 in to 0.5 in	0.001 mm, 0.00005 in	±0.0001 in	IP42	Yes	No	LCD	Mitutoyo	**33RK38**
	0.001 mm, 0.00005 in	±0.0001 in	IP53	Yes	No	LCD	Mitutoyo	**41T258**
	0.001 mm, 0.00005 in, 0.0001 in, 0.01 mm, 0.0005 in	±0.00012 in	IP42	Yes	No	LCD With Analog Bar	Mitutoyo	**54GE85**
	0.001 mm, 0.0001 in	±0.0001 in	IP42	Yes	No	LCD	Mitutoyo	**1ARJ8**
	0.01 mm, 0.0005 in	±0.001 in	IP42	Yes	No	LCD	Mitutoyo	**4GPY3**
0 in to 0.98 in	0.01 mm	±0.03 mm	IP42	Yes	No	LCD	Mitutoyo	**36J695**
0 in to 1 in	0.001 mm, 0.00005 in	±0.0001 in	IP42	Yes	No	LCD	Mitutoyo	**4GPY5**
0 in to 2 in	0.001 mm, 0.00005 in	±0.0002 in	IP42	Yes	No	LCD	Mitutoyo	**4GPY6**
0.00001 in to 0.039 in	0.001 mm, 0.005 mm, 0.0005 in	0.5% OF Standard Range	IP54	Yes	Yes	LCD	Mahr	**5RHJ4**
0.00001 in to 0.04 in	0.0002 mm, 0.00001 in, 0.00002 in, 0.001 mm, 0.00005 in, 0.002 mm, 0.0001 in, 0.005 mm, 0.01 mm, 0.0005 in, 0.02 in	±0.5% over ±0.040 in; ±0.25% over ±0.020 in	IP54	Yes	Yes	LCD	Mahr	**5RHJ0**
0.00002 in to 0.4 in	0.0002 mm, 0.00001 in, 0.00002 in, 0.001 mm, 0.00005 in, 0.002 mm, 0.0001 in, 0.005 mm, 0.01 mm, 0.0005 in, 0.02 in	±0.002 mm	IP54	Yes	Yes	LCD	Mahr	**508V81**