

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



1D with Motorized Travel 446F34

Digital Height Gauges

- Includes display
- 2D Digital Height Gauges include SCS Certificate of calibration
- SPC Output except where noted

1D digital height gauges

are used measure height and scribe lines for layout applications.

2D digital height gauges

have a scriber that moves along the X axis so the operator

can perform measurements in 2 dimensions. They measure height and inspect round parts and bores, with the probe moving in a circular path. They are also used to scribe lines in layout applications.

Range	Res.	Accuracy	Data Output Type	Includes Fine Adjustment	Beam Style	Brand	Item No.
1D Digital Height Gauges with Manual Travel							
0 in to 12 in/0 to 300 mm	0.0005 in/0.01 mm	±0.0015 in	—	No	Single-Pole	Westward	2YND4
0 in to 12 in/0 to 300 mm	0.0005 in/0.01 mm	±0.012 in	Cable, Wireless with Transmitter	—	Single-Pole	Insize	463D71
0 in to 12 in/0 to 300 mm	0.0005 in/0.01 mm, 0.0002 in/0.005 mm	±0.001 in	—	Yes	Double-Pole	Mitutoyo	33RK45
0 in to 18 in/0 to 450 mm	0.0005 in/0.01 mm	±0.002 in	—	No	Single-Pole	Westward	2YND5
0 in to 18 in/0 to 450 mm	0.0005 in/0.01 mm, 0.0002 in/0.005 mm	±0.002 in	—	Yes	Double-Pole	Mitutoyo	33RK46
0 in to 24 in/0 to 600 mm	0.0005 in/0.01 mm	±0.002 in	Cable, Wireless with Transmitter	—	Single-Pole	Insize	463D72
0 in to 24 in/0 to 600 mm	0.0005 in/0.01 mm, 0.0002 in/0.005 mm	±0.002 in	—	Yes	Double-Pole	Mitutoyo	546F34
0 in to 40 in/0 to 1,000 mm	0.0005 in/0.01 mm	±0.0031 in	Cable	—	Single-Pole	Insize	463J19
0 in to 40 in/0 to 1,000 mm	0.0005 in/0.01 mm, 0.0002 in/0.005 mm	±0.025 in	—	Yes	Double-Pole	Mitutoyo	33RK47
1D Digital Height Gauges with Motorized Travel							
0 in to 14 in/0 to 350 mm	0.00005 in/0.001 mm, 0.0001 in/0.01 mm	±(2.8-L/300) micron	—	Yes	Single-Pole	Mahr	446F34
0 in to 24 in/0 to 600 mm	0.00005 in/0.001 mm, 0.0001 in/0.01 mm	±(2.8-L/300) micron	—	Yes	Single-Pole	Mahr	446F35
2D Digital Height Gauges with Manual Travel							
0 to 350 mm/170 to 520 mm	0.00001 in/0.0001 mm, 0.0001 in/0.001 mm, 0.001 in/0.01 mm	±(2+2 x L/1000) micron	Cable, Wireless	Yes	Single-Pole	Tesa Brown & Sharpe	54VL05
0 to 600 mm/170 to 770 mm	0.00001 in/0.0001 mm, 0.0001 in/0.001 mm, 0.001 in/0.01 mm	±(2+2 x L/1000) micron	Cable, Wireless	Yes	Single-Pole	Tesa Brown & Sharpe	54VL06
0 to 900 mm/175 to 1075 mm	0.00001 in/0.0001 mm, 0.0001 in/0.001 mm, 0.001 in/0.01 mm	±(2+2 x L/1000) micron	Cable, Wireless	Yes	Single-Pole	Tesa Brown & Sharpe	54VL07
0 to 900 mm/175 to 1075 mm	0.00001 in/0.0001 mm, 0.0001 in/0.001 mm, 0.001 in/0.01 mm	±(2+2 x L/1000) micron	Cable, Wireless	No	Single-Pole	Tesa Brown & Sharpe	462H45

Bore Gauges



Dial Bore Gauges are mounted to the gauge handle. The user rocks the gauge in the bore or hole to find the minimum reading on the dial. Digital bore gauges have a integrated LCD or removable and exchangeable digital indicator that provides quick, easy reading of inside-diameter measurements of holes and openings.

Range	Accuracy	Dial Graduation	Requires Indicator	Contact Point Material	Brand	Item No.
Dial Bore Gauges						
0 in to 0.05 in	±0.0001 in	0.0001 in	Yes	Carbide Tipped	Mitutoyo	785TH3
Anvil Contact Style						
0.4 in to 0.7 in	±0.00075 in	0.0005 in	Yes	Steel	Insize	463F37
0.7 in to 1.5 in	±0.00075 in	0.0005 in	Yes	Steel	Insize	463F39
0.7 in to 1.5 in	±0.002 in	0.0005 in	—	Carbide	Starrett	5UAR3
1.4 in to 2.4 in	±0.0009 in	0.0005 in	Yes	Ceramic	Insize	463F41
1.4 in to 2.5 in	±0.00008 in	0.0001 in	Yes	Carbide	Mitutoyo	6ANT9
2 in to 6 in	±0.0009 in	0.0005 in	Yes	Ceramic	Insize	463F42
2 in to 6 in	±0.002 in	0.0005 in	—	Carbide	Starrett	5UAR2
6 in to 10 in	±0.0009 in	0.0005 in	Yes	Ceramic	Insize	463F38
6.5 in to 10 in	±0.00008 in	0.0001 in	Yes	Carbide	Mitutoyo	6ANU1
10 in to 16 in	±0.0009 in	0.0005 in	Yes	Ceramic	Insize	463F40
Split Ball Contact Style						
0.56 in to 1.565 in	±0.0002 in	0.0001 in	Yes	—	Starrett	26Y763
Three-Point Contact Style						
1.5 in to 3 in	±0.0002 in	0.0001 in	Yes	Steel	Starrett	26Y775
3 in to 5.1875 in	±0.0002 in	0.0001 in	Yes	Steel	Starrett	26Y776
5 in to 8 in	±0.0002 in	0.0001 in	Yes	Steel	Starrett	26Y777

Dial Bore 26Y775



Range	Accuracy	Dial Graduation	Requires Indicator	Contact Point Material	Brand	Item No.
Digital Bore Gauges						
Anvil Contact Style						
0.24 in to 0.4 in	+/-0.00075 in	—	No	Steel	Insize	463D81
0.4 in to 0.7 in	+/-0.00075 in	—	No	Steel	Insize	463D82
0.7 in to 1.5 in	+/-0.00075 in	—	No	Steel	Insize	463D84
1.4 in to 2.4 in	+/-0.0009 in	—	No	Steel	Insize	463D86
2 in to 6 in	+/-0.0009 in	—	No	Steel	Insize	463D87
6 in to 10 in	+/-0.0009 in	—	No	Steel	Insize	463D83
10 in to 16 in	+/-0.0009 in	—	No	Steel	Insize	463D85

Telescoping Gauge Sets



Inserted into openings and controlled by a knurled knob or small handle that expands the telescoping arm until the spring-loaded plungers make contact with the sides of the bore. Polished-steel gauge is locked into place and removed. It is then measured with an outside micrometer to determine a bore's hole diameter.

No. of Pieces	Range	Overall Length	Gauge Plunger Style	Replaceable Handle	Maximum Measuring Depth	Brand	Item No.
4	.315 in to 2.126 in	4 2 ¹ / ₄ in to 5 2 ³ / ₃₂ in	—	—	5 in	Mitutoyo	5CT18
4	5 ¹ / ₈ in to 2 1 ¹ / ₂ in	2 1 ¹ / ₂ in	Double-Arm Plunger	Yes	2.375 in	Starrett	22VC3
5	1 ¹ / ₂ in to 6 in	2 3 ⁴ / ₈ in	Single-Arm Plunger	Yes	2.625 in	Starrett	22VA5
5	1 ¹ / ₂ in to 5 3 ¹ / ₈ in	4 2 ¹ / ₄ in (3) 5 1 ¹ / ₈ in	Double Plunger	No	—	Mitutoyo	1ARB2
6	0.313 in to 5 in	(3) 4 3 ¹ / ₈ in, (3) 5 1 ¹ / ₈ in	Double-Arm Plunger	Yes	2.375 in	Starrett	5UAV1
6	3 ¹ / ₈ in to 2 1 ¹ / ₂ in	—	—	—	6 in	Mitutoyo	5CT17
6	3 ¹ / ₈ in to 6 in	4 2 ¹ / ₄ in to 6 in	—	Yes	6 in	Insize	54XJ15



22VC3

Taper Gauges & Sets



No. of Leaves	Range	Graduations	Overall Length	Material	Brand	Item No.
Flat Leaf						
1	1/2 in to 3/8 in	1/64 in	5 3/4 in	Stainless Steel	Insize	54XJ11
4	1/8 in to 3/16 in, 2 ¹ / ₁₆ in to 1/4 in, 3/16 in to 1/2 in	1/64 in	5 3/8 in	Stainless Steel	Insize	55VN64
8	0.100 in to 0.500 in	0.001 in	2 1/2 in	Tempered Steel	Starrett	22VC1
10	1/2 in to 1 in	0.001 in	2 3/4 in	Tempered Steel	Starrett	30C249
Rounded Body						
1	0.6 in to 1.2 in	0.005 in	6 1/2 in	Carbon Steel	Insize	55VN65
1	1.2 in to 1.8 in	0.005 in	6 1/2 in	Carbon Steel	Insize	55VN66



30C249