

Recommended Digimatic Indicators (see Chapter F)

- Metric type:
543-310B-10 (ID-C112GXB2): 0.001 mm
- Inch type:
543-312B (ID-C112GEXB): 0.001 mm/0.00005 in



- The ID measurement can be performed easily since the minimum value is detected automatically.
- Up to three combinations of master value and tolerance value can be set.
- Nine measurement results (maximum) can be saved and recalled from memory (when no external device is connected). Refer to page F-12 for details.

Anvil

A carbide ball is used for the contact point. It is more abrasion resistant than a hardened steel ball and, as its surface is smoother than that of a carbide tip, the workpiece is less liable to be marked.

Comparison of abrasion resistance

Hardened steel ball (conventional model) Carbide ball (current model)



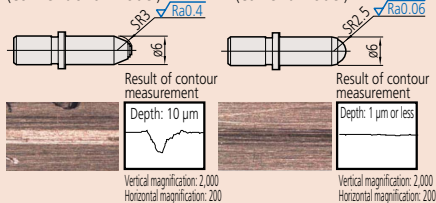
Abrasion depth: 0.1 mm 750 HV or more Abrasion depth: 0.001 mm 1350 HV or more

Inspection method

- Load a 0.5 N weight on the anvil, and slide for 1,000 m on abrasive paper of 9 μm (#2000) particle size.

Comparison of marks on the workpiece

Carbide tip (conventional model) Carbide ball (current model)



Inspection method

- Load a 4 N weight on the anvil, and slide on the aluminum plate back and forth for 20 times.

SPECIFICATIONS

Inch								
Order No.	Range (in)	Stroke of contact point (in)	Accuracy* (in)	Repeatability* (in)	Adjacent error* (in)	Measuring force (N)	Guide force (N)	
511-731	0.7 - 1.4	0.047	0.00008	0.00002	0.00004	4 or less	6 or less	
511-732	1.4 - 2.5					5 or less	10 or less	
511-733	2.0 - 6.0					6 or less	15 or less	
511-734	4.0 - 6.5	0.063	0.00008	0.00002	0.00004	4 or less	6 or less	
511-735	6.5 - 10.0					5 or less	10 or less	
511-736	10.0 - 16.0					6 or less	15 or less	
511-751-20	0.7 - 1.4	0.047	0.00008	0.00002	0.00004	4 or less	6 or less	
511-752-20	1.4 - 2.5					5 or less	10 or less	
511-753-20	2.0 - 6.0					6 or less	15 or less	
511-754-20	4.0 - 6.5	0.063	0.00008	0.00002	0.00004	4 or less	6 or less	
511-755-20	6.5 - 10.0					5 or less	10 or less	
511-756-20	10.0 - 16.0					6 or less	15 or less	
511-741-20	0.7 - 1.4	0.047	0.00008	0.00002	0.00004	4 or less	6 or less	
511-742-20	1.4 - 2.5					5 or less	10 or less	
511-743-20	2.0 - 6.0					6 or less	15 or less	
511-744-20	4.0 - 6.5	0.063	0.00008	0.00002	0.00004	4 or less	6 or less	
511-745-20	6.5 - 10.0					5 or less	10 or less	
511-746-20	10.0 - 16.0					6 or less	15 or less	
511-931-20	0.7 - 6.0	See SPECIFICATIONS of 511-731/732/733						
511-932-20								
511-935-10								

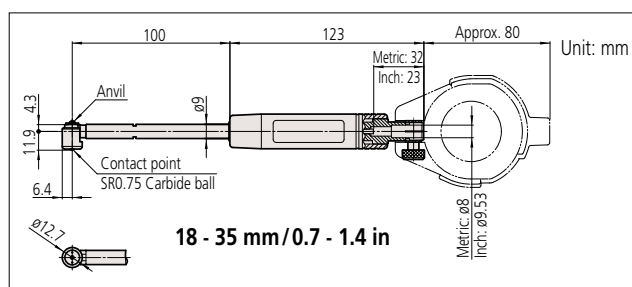
Order No.	Content of set							
	Bore gage	Dial indicator	Dial protection cover	Anvil	Interchangeable Washer	Sub-Anvil	Spanner	Probing depth (in)
511-731	511-731	Not supplied	Not supplied	9 pcs.	2 pcs.	Not supplied	1 pc.	4
511-732	511-732			6 pcs.	4 pcs.	1 pc.	Not supplied	6
511-733	511-733			11 pcs.				
511-734	511-734			13 pcs.	7 pcs.	1 pc.	Not supplied	10
511-735	511-735			6 pcs.				
511-736	511-736			5 pcs.				
511-751-20	511-731	2923AB-10 (Graduation: 0.0001 in)	21DZA000	9 pcs.	2 pcs.	Not supplied	1 pc.	4
511-752-20	511-732			6 pcs.	4 pcs.	1 pc.	Not supplied	6
511-753-20	511-733			11 pcs.				
511-754-20	511-734			13 pcs.	7 pcs.	1 pc.	Not supplied	10
511-755-20	511-735			6 pcs.				
511-756-20	511-736			5 pcs.				
511-741-20	511-731	2922AB (Graduation: 0.0005 in)	21DZA000	9 pcs.	2 pcs.	Not supplied	1 pc.	4
511-742-20	511-732			6 pcs.	4 pcs.	1 pc.	Not supplied	6
511-743-20	511-733			11 pcs.				
511-744-20	511-734			13 pcs.	7 pcs.	1 pc.	Not supplied	10
511-745-20	511-735			6 pcs.				
511-746-20	511-736			5 pcs.				
511-931-20	Set of	2922AB	21DZA000	See SPECIFICATIONS of 511-731/732/733				
511-932-20	511-731/	2923AB-10						
511-935-10	732/733	543-312B						

* Accuracy of the bore gage alone.

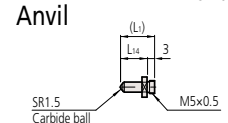
Note 1: A 2 in sub-anvil is supplied with 511-733, and a 3 in sub-anvil is supplied with 511-736.

Note 2: It is not permissible to use a sub-anvil other than as supplied as a standard accessory, or widen a measuring range by using multiple sub-anvils. (The measurement accuracy in such cases is not guaranteed.)

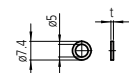
DIMENSIONS



Unit: mm



Interchangeable washer



t (mm)	Order No.
0.5	205623
1	205624

STANDARD ACCESSORIES

Bore gage (Main body)	Anvil				
	Marked No.	Order No.	Indication of measuring size	L1	L14
511-701 511-731	1	21DZA213A	18 mm/0.71 in	5.5	2.5
	2	21DZA213B	20 mm/0.79 in	7.5	4.5
	3	21DZA213C	22 mm/0.87 in	9.5	6.5
	4	21DZA213D	24 mm/0.94 in	11.5	8.5
	5	21DZA213E	26 mm/1.02 in	13.5	10.5
	6	21DZA213F	28 mm/1.10 in	15.5	12.5
	7	21DZA213G	30 mm/1.18 in	17.5	14.5
	8	21DZA213H	32 mm/1.26 in	19.5	16.5
	9	21DZA213J	34 mm/1.34 in	21.5	18.5

Spanner 102148

