

Bore Gages

Bore Gages SERIES 511 — Short Leg Type

- As it is light and easy to handle with a short rod below the grip, the operator can work smoothly when inserting it into a narrow space or measuring an object on the table.
- The contact point and anvil have a carbide ball tip that is highly durable and abrasion-resistant.
- The grip minimizes the variation of indicator values affected by heat transfer from the operator's hand.



511-761

511-761 Note: The dial indicator and the dial protection cover are optional.

SPECIFICATIONS

Metric							
Order No.	Range (mm)	Stroke of contact point (mm)	Accuracy* (μm)	Repeatability* (μm)	Adjacent error* (μm)	Measuring force (N)	Guide force (N)
511-761	18 - 35	1.2	2	0.5	1	4 or less	6 or less
511-762	35 - 60						
511-763	50 - 150	1.6	2	0.5	1	5 or less	10 or less
511-764	100 - 160						
511-771-20	18 - 35	1.2	2	0.5	1	4 or less	6 or less
511-772-20	35 - 60						
511-773-20	50 - 150	1.6	2	0.5	1	5 or less	10 or less
511-774-20	100 - 160						
511-766-20	18 - 35	1.2	2	0.5	1	4 or less	6 or less
511-767-20	35 - 60						
511-768-20	50 - 150	1.6	2	0.5	1	5 or less	10 or less
511-769-20	100 - 160						

Order No.	Content of set							Probing depth (mm)
	Bore gage	Dial indicator	Dial protection cover	Anvil	Interchangeable Washer	Sub-Anvil	Spanner	
511-761	511-761	Not supplied	Not supplied	9 pcs.	2 pcs.	Not supplied	1 pc.	50
511-762	511-762			6 pcs.	4 pcs.	1 pc.	Not supplied	
511-763	511-763			11 pcs.				
511-764	511-764			13 pcs.				
511-771-20	511-761	2109AB-10 (Graduation: 0.001 mm)	21DZA000	9 pcs.	2 pcs.	Not supplied	1 pc.	50
511-772-20	511-762			6 pcs.	4 pcs.	1 pc.	Not supplied	
511-773-20	511-763			11 pcs.				
511-774-20	511-764			13 pcs.				
511-766-20	511-761	2046AB (Graduation: 0.01 mm)	21DZA000	9 pcs.	2 pcs.	Not supplied	1 pc.	50
511-767-20	511-762			6 pcs.	4 pcs.	1 pc.	Not supplied	
511-768-20	511-763			11 pcs.				
511-769-20	511-764			13 pcs.				

* Accuracy of the bore gage alone.

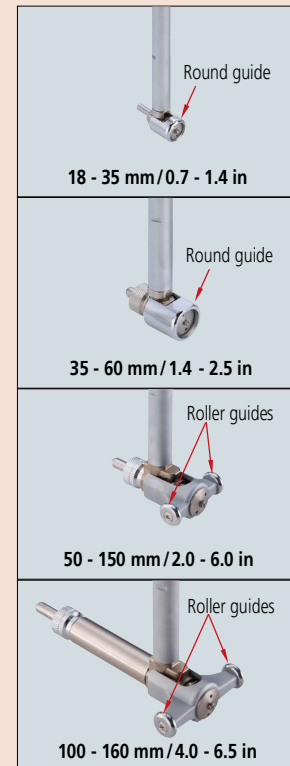
Note 1: A 50 mm sub-anvil is supplied with 511-763.

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.)

Measurement example



Contact Points



The dial protection cover, recommended indicators

Refer to page C-50.

SPECIFICATIONS

Inch							
Order No.	Range (in)	Stroke of contact point (in)	Accuracy* (in)	Repeatability* (in)	Adjacent error* (in)	Measuring force (N)	Guide force (N)
511-781	0.7 - 1.4	0.047	0.00008	0.00002	0.00004	4 or less	6 or less
511-782	1.4 - 2.5					5 or less	10 or less
511-783	2.0 - 6.0					5 or less	10 or less
511-784	4.0 - 6.5	0.063	0.00008	0.00002	0.00004	4 or less	6 or less
511-791-20	0.7 - 1.4					5 or less	10 or less
511-792-20	1.4 - 2.5					5 or less	10 or less
511-793-20	2.0 - 6.0	0.063	0.00008	0.00002	0.00004	4 or less	6 or less
511-794-20	4.0 - 6.5					5 or less	10 or less
511-786-20	0.7 - 1.4					5 or less	10 or less
511-787-20	1.4 - 2.5	0.047	0.00008	0.00002	0.00004	4 or less	6 or less
511-788-20	2.0 - 6.0					5 or less	10 or less
511-789-20	4.0 - 6.5					5 or less	10 or less

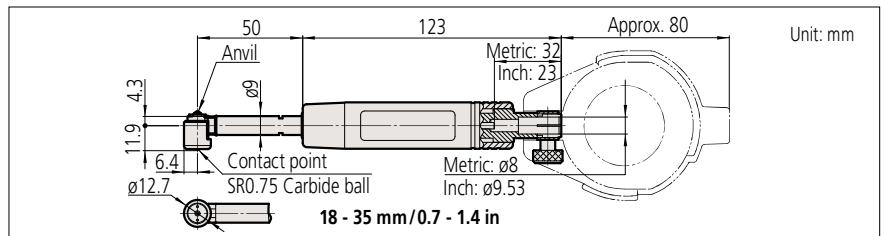
Order No.	Content of set							Probing depth (in)
	Bore gage	Dial indicator	Dial protection cover	Anvil	Interchangeable Washer	Sub-Anvil	Spanner	
511-781	511-781	Not supplied	Not supplied	9 pcs.	2 pcs.	Not supplied	1 pc.	2
511-782	511-782			6 pcs.	4 pcs.		1 pc.	
511-783	511-783			11 pcs.		Not supplied	Not supplied	
511-784	511-784			13 pcs.				
511-791-20	511-781	2923AB-10 (Graduation: 0.0001 in)	21DZA000	6 pcs.	4 pcs.	Not supplied	Not supplied	2
511-792-20	511-782			11 pcs.				
511-793-20	511-783			13 pcs.		Not supplied	Not supplied	
511-794-20	511-784			9 pcs.	2 pcs.			
511-786-20	511-781	2922AB (Graduation: 0.0005 in)	21DZA000	6 pcs.	4 pcs.	Not supplied	Not supplied	2
511-787-20	511-782			11 pcs.				
511-788-20	511-783			13 pcs.		Not supplied	Not supplied	
511-789-20	511-784			9 pcs.	2 pcs.			

* Accuracy of the bore gage alone.

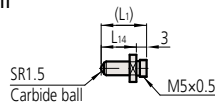
Note 1: A 2 inch sub-anvil is supplied with 511-783.

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.)

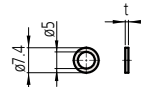
DIMENSIONS



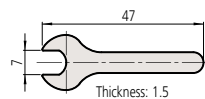
Anvil



Interchangeable washer



Spanner 102148



t (mm)	Order No.
0.5	205623
1	205624

STANDARD ACCESSORIES

Bore gage (Main body)	Marked No.	Order No.	Anvil		
			Indication of measuring size	L ₁	L ₁₄
511-761 511-781	1	21DZA213A	18 mm/0.71 in	5.5 mm/0.22 in	2.5 mm/0.10 in
	2	21DZA213B	20 mm/0.79 in	7.5 mm/0.30 in	4.5 mm/0.18 in
	3	21DZA213C	22 mm/0.87 in	9.5 mm/0.37 in	6.5 mm/0.26 in
	4	21DZA213D	24 mm/0.94 in	11.5 mm/0.45 in	8.5 mm/0.33 in
	5	21DZA213E	26 mm/1.02 in	13.5 mm/0.53 in	10.5 mm/0.41 in
	6	21DZA213F	28 mm/1.10 in	15.5 mm/0.61 in	12.5 mm/0.49 in
	7	21DZA213G	30 mm/1.18 in	17.5 mm/0.69 in	14.5 mm/0.57 in
	8	21DZA213H	32 mm/1.26 in	19.5 mm/0.77 in	16.5 mm/0.65 in
	9	21DZA213J	34 mm/1.34 in	21.5 mm/0.85 in	18.5 mm/0.73 in