

Holtest SERIES 368 — Three-point/Two-point Internal Micrometers

- Titanium-coated measuring pins on the three-point type (over 6 mm range models) provide excellent durability and impact resistance.
- Three-point internal micrometer with measuring range 6 mm or longer allows stable measurement through self-centering.
- Measurement can be made close to the bottom of a blind hole.
- Deep holes can be measured by attaching an Extension Rod (optional) which is available on models over 6 mm (0.275 in) measuring range.



368-001
(Two-point contact type)



368-168
(Three-point contact type)

SPECIFICATIONS

Metric					Inch				
Order No.	Range*2 (mm)	Graduation (mm)	Maximum permissible error J_{MPE} (μm)*1	Extension Rod (optional)	Order No.	Range*2 (in)	Graduation (in)	Maximum permissible error J_{MPE} (in)*1	Extension Rod (optional)
(Two-point)		0.001	± 2 (maximum difference 2)	—	(Two-point)		0.0001	± 0.0001 (maximum difference 0.0001)	—
368-001	2 - 2.5				368-021	0.08 - 0.1			
368-002	2.5 - 3				368-022	0.1 - 0.12			
368-003	3 - 4				368-023	0.12 - 0.16			
368-004	4 - 5				368-024	0.16 - 0.2			
368-005	5 - 6				368-025	0.2 - 0.24			
(Three-point)		0.001	± 2 (maximum difference 2)	952322 (100 mm)	(Three-point)		0.0001	± 0.0001 (maximum difference 0.0001)	952322 (100 mm)
368-161	6 - 8				368-261	0.275 - 0.35			
368-162	8 - 10				368-262	0.35 - 0.425			
368-163	10 - 12				368-263	0.425 - 0.5			
368-164	12 - 16				368-264	0.5 - 0.65			
368-165	16 - 20				368-265	0.65 - 0.8			
368-166	20 - 25	0.005	± 3 (maximum difference 3)	952621 (150 mm)	368-266	0.8 - 1	0.0002	± 0.00015 (maximum difference 0.00015)	952621 (150 mm)
368-167	25 - 30				368-267	1 - 1.2			
368-168	30 - 40				368-268	1.2 - 1.6			
368-169	40 - 50				368-269	1.6 - 2			
368-170	50 - 63				368-270	2 - 2.5			
368-171	62 - 75				368-271	2.5 - 3			
368-172	75 - 88	0.005	± 4 (maximum difference 4)	952622 (150 mm)	368-272	3 - 3.5	0.0002	± 0.0002 (maximum difference 0.0002)	952622 (150 mm)
368-173	87 - 100				368-273	3.5 - 4			
368-174	100 - 125				368-274	4 - 5			
368-175	125 - 150				368-275	5 - 6			
368-176	150 - 175				368-276	6 - 7			
368-177	175 - 200				368-277	7 - 8			
368-178	200 - 225	0.005	± 5 (maximum difference 5)	952623 (150 mm)	368-278	8 - 9	0.0002	± 0.00025 (maximum difference 0.00025)	952623 (150 mm)
368-179	225 - 250				368-279	9 - 10			
368-180	250 - 275				368-280	10 - 11			
368-181	275 - 300				368-281	11 - 12			

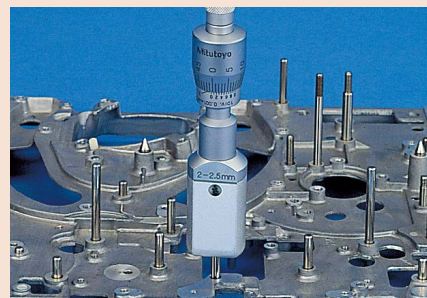
*1 Additionally, the difference in permissible error allowable is limited to a value within this range, as given in parentheses, and is measured with the entire measuring surface in contact with the object measured.

*2 The measurement range cannot be enlarged by measuring heads that are not standard-supplied (the accuracy is not guaranteed).

Note: Setting rings are optional.

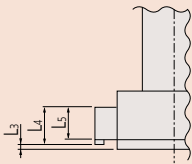


Measurement example



You can measure the diameter of a blind hole to the bottom.

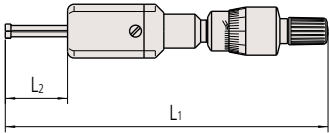
Range (mm)	L ₃ (mm)	L ₄ (mm)	L ₅ (mm)
2 - 6	—	—	2
6 - 12	2 or below	—	2.5
12 - 20	0.3 or below	5.6	3.5
20 - 30		8.3	5.2
30 - 50		13.0	10.0
50 - 100		17.0	14.0
100 - 300	12.4 or below	21.0	13.8



For details of Special-order Products, refer to page C-57.

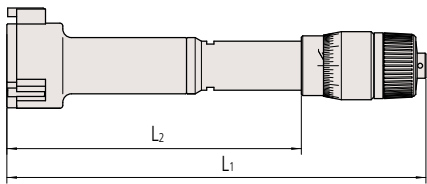
DIMENSIONS

Unit: mm



Range	L ₂	L ₁
2 - 2.5, 2.5 - 3 mm	12	103.5 - 104
3 - 4, 4 - 5, 5 - 6 mm	22	113 - 114

Note: External appearance differs depending on the measuring range.



Range	L ₂	L ₁
6 - 8, 8 - 10, 10 - 12 mm	59	102 - 104
12 - 16, 16 - 20 mm	82	126 - 130
20 - 25, 25 - 30 mm	94	137 - 142
30 - 40, 40 - 50 mm	102	145 - 155
50 - 63, 62 - 75, 75 - 88, 87 - 100 mm	105	150 - 163
100 - 125, 125 - 150, 150 - 175, 175 - 200, 200 - 225, 225 - 250, 250 - 275, 275 - 300 mm	161	227 - 252

Note: External appearance differs depending on the measuring range.

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Non-Interchangeable-Head Sets



Metric				Inch					
Set Order No.	Range* (mm)	Graduation (mm)	Content of Set	Set Order No.	Range* (in)	Graduation (in)	Content of Set		
(Two-point)				(Two-point)					
368-906	2 - 3		Micrometer head unit		368-926	0.08 - 0.12		Micrometer head unit	
			2 - 2.5 mm	1 pc.				0.08 - 0.1 in	1 pc.
			2.5 - 3 mm	1 pc.				0.1 - 0.12 in	1 pc.
			Setting ring (ø2.5)	1 pc.				Setting ring (0.1 in DIA.)	1 pc.
			Hex wrench	1 pc.				Hex wrench	1 pc.
368-907	3 - 6	0.001	Micrometer head unit		368-927	0.12 - 0.28	0.0001	Micrometer head unit	
			3 - 4 mm	1 pc.				0.12 - 0.16 in	1 pc.
			4 - 5 mm	1 pc.				0.16 - 0.2 in	1 pc.
			5 - 6 mm	1 pc.				0.2 - 0.24 in	1 pc.
			Setting ring (ø4, ø5)	1 pc. each				0.24 - 0.28 in	1 pc.
(Three-point)	6 - 12	0.001	Hex wrench	1 pc.	368-916	0.275 - 0.5	0.0001	Setting ring (0.16 in DIA., 0.24 in DIA.)	1 pc. each
			Micrometer head unit					Hex wrench	1 pc.
			6 - 8 mm	1 pc.				Micrometer head unit	
			8 - 10 mm	1 pc.				0.275 - 0.35 in	1 pc.
			10 - 12 mm	1 pc.				0.35 - 0.425 in	1 pc.
368-911	6 - 12	0.001	Setting ring (ø8, ø10)	1 pc. each	368-916	0.275 - 0.5	0.0001	0.425 - 0.5 in	1 pc.
			Extension rod (100 mm)	1 pc.				Setting ring (0.35 in DIA., 0.5 in DIA.)	1 pc. each
			Spanner	2 pcs.				Extension rod (100 mm)	1 pc.
			Hex wrench	1 pc.				Spanner	2 pcs.
								Hex wrench	1 pc.
368-912	12 - 20	0.005	Micrometer head unit		368-917	0.5 - 0.8	0.0002	Micrometer head unit	
			12 - 16 mm	1 pc.				0.5 - 0.65 in	1 pc.
			16 - 20 mm	1 pc.				0.65 - 0.8 in	1 pc.
			Setting ring (ø16)	1 pc.				Setting ring (0.65 in DIA.)	1 pc.
			Extension rod (150 mm)	1 pc.				Extension rod (150 mm)	1 pc.
			Spanner	2 pcs.				Spanner	2 pcs.
			Hex wrench	1 pc.				Hex wrench	1 pc.

* The measurement range cannot be enlarged by measuring heads that are not standard-supplied (the accuracy is not guaranteed).

Non-Interchangeable-Head Sets



368-913



368-914



Setting rings are supplied as standard (ø125, ø175) (Packed separately)

368-915

Metric			
Set Order No.	Range* (mm)	Graduation (mm)	Content of Set
(Three-point)			
368-913	20 - 50	0.005	Micrometer head unit
			20 - 25 mm 1 pc.
			25 - 30 mm 1 pc.
			30 - 40 mm 1 pc.
			40 - 50 mm 1 pc.
			Setting ring (ø25, ø40) 1 pc. each
			Extension rod (150 mm) 1 pc.
368-914	50 - 100	0.005	Spanner 2 pcs.
			Hex wrench 1 pc.
			Micrometer head unit
			50 - 63 mm 1 pc.
			62 - 75 mm 1 pc.
			75 - 88 mm 1 pc.
			87 - 100 mm 1 pc.
368-915	100 - 200	0.005	Setting ring (ø62, ø87) 1 pc. each
			Extension rod (150 mm) 1 pc.
			Spanner 2 pcs.
			Hex wrench 1 pc.
			Micrometer head unit
			100 - 125 mm 1 pc.
			125 - 150 mm 1 pc.
			150 - 175 mm 1 pc.
			175 - 200 mm 1 pc.
			Setting ring (ø125, ø175) 1 pc. each
			Extension rod (150 mm) 1 pc.
			Spanner 2 pcs.
			Hex wrench 1 pc.

Inch			
Set Order No.	Range* (in)	Graduation (in)	Content of Set
(Three-point)			
368-918	0.8 - 2	0.0002	Micrometer head unit
			0.8 - 1 in 1 pc.
			1 - 1.2 in 1 pc.
			1.2 - 1.6 in 1 pc.
			1.6 - 2 in 1 pc.
			Setting ring (1 in DIA., 1.6 in DIA.) 1 pc. each
			Extension rod (150 mm) 1 pc.
368-919	2 - 4	0.0002	Spanner 2 pcs.
			Hex wrench 1 pc.
			Micrometer head unit
			2 - 2.5 in 1 pc.
			2.5 - 3 in 1 pc.
			3 - 3.5 in 1 pc.
			3.5 - 4 in 1 pc.
368-920	4 - 8	0.0002	Setting ring (2.5 in DIA., 3.5 in DIA.) 1 pc. each
			Extension rod (150 mm) 1 pc.
			Spanner 2 pcs.
			Hex wrench 1 pc.
			Micrometer head unit
			4 - 5 in 1 pc.
			5 - 6 in 1 pc.
			6 - 7 in 1 pc.
			7 - 8 in 1 pc.
			Setting ring (5 in DIA., 7 in DIA.) 1 pc. each
			Extension rod (150 mm) 1 pc.
			Spanner 2 pcs.
			Hex wrench 1 pc.

* The measurement range cannot be enlarged by measuring heads that are not standard-supplied (the accuracy is not guaranteed).