

# Holtest

## Digimatic Holtest SERIES 468 — Three-point Internal Micrometers

- Three-point internal micrometer with large LCD readout. (Character height 7.4 mm)
- Deep holes can be measured by attaching an Extension Rod (optional).
- Measurements can be made close to the bottom of a blind hole.
- Titanium-coated measuring pins provide excellent durability and impact resistance.
- Two preset values can be stored as reference points.



468-161



468-168



468-174

### SPECIFICATIONS

Metric					Inch / Metric				
Order No.	Range*2 (mm)	Resolution (mm)	Maximum permissible error $J_{MPE} (\mu m)^{*1}$	Extension Rod (optional)	Order No.	Range*2 (in)	Resolution	Maximum permissible error $J_{MPE} (in)^{*1}$	Extension Rod (optional)
468-161	6 - 8	0.001	±2 (maximum difference 2)	952322 (100 mm)	468-261	0.275 - 0.35	0.0005 in / 0.001 mm	±0.0001 (maximum difference 0.0001)	952322 (100 mm)
468-162	8 - 10				468-262	0.35 - 0.425			
468-163	10 - 12				468-263	0.425 - 0.5			
468-164	12 - 16				468-264	0.5 - 0.65			
468-165	16 - 20				468-265	0.65 - 0.8			
468-166	20 - 25				468-266	0.8 - 1			
468-167	25 - 30		±3 (maximum difference 3)	952622 (150 mm)	468-267	1 - 1.2		±0.00015 (maximum difference 0.00015)	952621 (150 mm)
468-168	30 - 40				468-268	1.2 - 1.6			
468-169	40 - 50				468-269	1.6 - 2			
468-170	50 - 63				468-270	2 - 2.5			
468-171	62 - 75				468-271	2.5 - 3			
468-172	75 - 88				468-272	3 - 3.5			
468-173	87 - 100		±4 (maximum difference 4)	952623 (150 mm)	468-273	3.5 - 4		±0.0002 (maximum difference 0.0002)	952622 (150 mm)
468-174	100 - 125				468-274	4 - 5			
468-175	125 - 150				468-275	5 - 6			
468-176	150 - 175				468-276	6 - 7			
468-177	175 - 200				468-277	7 - 8			
468-178	200 - 225				468-278	8 - 9			
468-179	225 - 250	±5 (maximum difference 5)	952623 (150 mm)	468-279	9 - 10	±0.00025 (maximum difference 0.00025)	952623 (150 mm)		
468-180	250 - 275			468-280	10 - 11				
468-181	275 - 300			468-281	11 - 12				
468-179	225 - 250	±6 (maximum difference 6)	952623 (150 mm)	468-279	9 - 10	±0.0003 (maximum difference 0.0003)	952623 (150 mm)		
468-180	250 - 275			468-280	10 - 11				
468-181	275 - 300			468-281	11 - 12				

- Battery: SR44 (1 pc.), **938882**, for initial operational checks (standard accessory)
- Battery life: Approx. 1.2 years under normal use
- Scale type: Electromagnetic induction-type rotary encoder
- \*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.

### DIMENSIONS

Range	L2*	L1
6 - 8, 8 - 10, 10 - 12 mm	59	175 - 177
12 - 16, 16 - 20 mm	84	197.5 - 201.5
20 - 25, 25 - 30 mm	93	206.9 - 211.9
30 - 40, 40 - 50 mm	103.8	214.7 - 224.7
50 - 63, 62 - 75, 75 - 88, 87 - 100 mm	105.4	219.6 - 232.6
100 - 125, 125 - 150, 150 - 175, 175 - 200, 200 - 225, 225 - 250, 250 - 275, 275 - 300 mm	151.4	286.3 - 311.3

\* L2 is maximum depth of measurement possible.  
Note: External view differs depending on measurement range.

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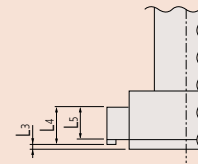


### Measurement example



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

Range (mm)	L3 (mm)	L4 (mm)	L5 (mm)
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



### Functions

- Zero-setting
- Origin restoration
- Data hold
- 2-point Preset
- Function lock
- inch/mm readout (inch/mm type)
- Automatic power ON/OFF
- Error alarm
- Data output

### Optional Accessories

Order No.	Type	description
05CZA662	B	Connecting cable (1 m)
05CZA663	B	Connecting cable (2 m)
06AFM380B	B	USB Input Tool Direct (2 m)
02AZD790B	B	Connecting cables for U-WAVE-T (160 mm)
02AZE140B	B	Connecting cables for U-WAVE-T For foot switch

### Mounting bracket (optional)

04AZB157

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

Interchangeable-Head Sets



Optional Accessories

Order No.	Type	description
05CZA662	B	Connecting cable (1 m)
05CZA663	B	Connecting cable (2 m)
06AFM380B	B	USB Input Tool Direct (2 m)
02AZD790B	B	Connecting cables for U-WAVE-T (160 mm)
02AZE140B	B	Connecting cables for U-WAVE-T For foot switch

Metric		
Set Order No.	Range* (mm)	Content of set
468-971	6 - 12	Display unit 6 - 12 mm 1 pc. Measuring head 6 - 8 mm 1 pc. 8 - 10 mm 1 pc. 10 - 12 mm 1 pc. Setting ring (ø8, ø10) 1 pc. each Extension rod (100 mm) 1 pc. Spanner 2 pcs. Hex wrench 1 pc. Phillips screwdriver 1 pc.
468-972	12 - 20	Display unit 12 - 20 mm 1 pc. Measuring head 12 - 16 mm 1 pc. 16 - 20 mm 1 pc. Setting ring (ø16) 1 pc. Extension rod (150 mm) 1 pc. Spanner 2 pcs. Hex wrench 1 pc. Phillips screwdriver 1 pc.
468-973	20 - 50	Display unit 20 - 50 mm 1 pc. Measuring head 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. Spanner 2 pcs. Hex wrench 1 pc. Phillips screwdriver 1 pc.
468-974	50 - 100	Display unit 50 - 100 mm 1 pc. Measuring head 50 - 63 mm 1 pc. 62 - 75 mm 1 pc. 75 - 88 mm 1 pc. 87 - 100 mm 1 pc. Setting ring (ø62, ø87) 1 pc. each Extension rod (150 mm) 1 pc. Spanner 2 pcs. Hex wrench 1 pc. Phillips screwdriver 1 pc.

Inch / Metric		
Set Order No.	Range* (in)	Content of set
468-976	0.275 - 0.5	Display unit 0.275 - 0.5 in 1 pc. Measuring head 0.275 - 0.35 in 1 pc. 0.35 - 0.425 in 1 pc. 0.425 - 0.5 in 1 pc. Setting ring (0.35 in DIA., 0.425 in DIA.) 1 pc. each Extension rod (100 mm) 1 pc. Spanner 2 pcs. Hex wrench 1 pc. Phillips screwdriver 1 pc.
468-977	0.5 - 0.8	Display unit 0.5 - 0.8 in 1 pc. Measuring head 0.5 - 0.65 in 1 pc. 0.65 - 0.8 in 1 pc. Setting ring (0.65 in DIA.) 1 pc. Extension rod (150 mm) 1 pc. Spanner 2 pcs. Hex wrench 1 pc. Phillips screwdriver 1 pc.
468-978	0.8 - 2	Display unit 0.8 - 2 in 1 pc. Measuring head 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. Spanner 2 pcs. Hex wrench 1 pc. Phillips screwdriver 1 pc.
468-979	2 - 4	Display unit 2 - 4 in 1 pc. Measuring head 2 - 2.5 in 1 pc. 2.5 - 3 in 1 pc. 3 - 3.5 in 1 pc. 3.5 - 4 in 1 pc. 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. Phillips screwdriver 1 pc.

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

## Interchangeable-Head Sets



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

**468-975**

## Accessories (optional)

Refer to page C-4.

Metric			Inch / Metric		
Set Order No.	Range* (mm)	Content of set	Set Order No.	Range* (in)	Content of set
<b>468-975</b>	100 - 200	Display unit	<b>468-980</b>	4 - 8	Display unit
		100 - 200 mm			4 - 8 in
		Measuring head			Measuring head
		100 - 125 mm			4 - 5 in
		125 - 150 mm			5 - 6 in
		150 - 175 mm			6 - 7 in
		175 - 200 mm			7 - 8 in
		Setting ring (ø125, ø175)			Setting ring (5 in DIA., 7 in DIA.)
Extension rod (150 mm)	Extension rod (150 mm)				
Spanner	Spanner				
Hex wrench	Hex wrench				
Phillips screwdriver	Phillips screwdriver				

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

Accessories (optional)

Refer to page C-4.

Non-Interchangeable-Head Sets



468-981

468-982

468-983

468-984

468-985

Metric				Inch / Metric			
Set Order No.	Range*2 (mm)	Content of set	Extension rod (optional)	Set Order No.	Range*2 (in)	Content of set	Extension rod (optional)
468-981	6 - 12	Display unit 6 - 8 mm 1 pc. 8 - 10 mm 1 pc. 10 - 12 mm 1 pc. Setting ring (ø8, ø10) 1 pc. each Spanner 2 pcs. Hex wrench 1 pc. Phillips screwdriver 1 pc.	100 mm 1 pc.	468-986	0.275 - 0.5	Display unit 0.275 - 0.35 in 1 pc. 0.35 - 0.425 in 1 pc. 0.425 - 0.5 in 1 pc. Setting ring (0.35 in DIA., 0.425 in DIA.) 1 pc. each Spanner 2 pcs. Hex wrench 1 pc. Phillips screwdriver 1 pc.	100 mm 1 pc.
468-982	12 - 25	Display unit 12 - 16 mm 1 pc. 16 - 20 mm 1 pc. 20 - 25 mm 1 pc. Setting ring (ø16, ø20) 1 pc. each Spanner 2 pcs. Hex wrench 1 pc. Phillips screwdriver 1 pc.	150 mm 2 pcs.*1	468-987	0.5 - 1	Display unit 0.5 - 0.65 in 1 pc. 0.65 - 0.8 in 1 pc. 0.8 - 1 in 1 pc. Setting ring (0.65 in DIA., 0.8 in DIA.) 1 pc. each Spanner 2 pcs. Hex wrench 1 pc. Phillips screwdriver 1 pc.	150 mm 2 pcs.*1
468-983	25 - 50	Display unit 25 - 30 mm 1 pc. 30 - 40 mm 1 pc. 40 - 50 mm 1 pc. Setting ring (ø30, ø40) 1 pc. each Spanner 1 pc. Hex wrench 1 pc. Phillips screwdriver 1 pc.	150 mm 1 pc.	468-988	1 - 2	Display unit 1 - 1.2 in 1 pc. 1.2 - 1.6 in 1 pc. 1.6 - 2 in 1 pc. Setting ring (1.2 in DIA., 1.6 in DIA.) 1 pc. each Spanner 1 pc. Hex wrench 1 pc. Phillips screwdriver 1 pc.	150 mm 1 pc.
468-984	50 - 75	Display unit 50 - 63 mm 1 pc. 62 - 75 mm 1 pc. Setting ring (ø62) 1 pc. Spanner 1 pc. Hex wrench 1 pc. Phillips screwdriver 1 pc.	150 mm 1 pc.	468-989	2 - 3	Display unit 2 - 2.5 in 1 pc. 2.5 - 3 in 1 pc. Setting ring (2.5 in DIA.) 1 pc. Spanner 1 pc. Hex wrench 1 pc. Phillips screwdriver 1 pc.	150 mm 1 pc.
468-985	75 - 100	Display unit 75 - 88 mm 1 pc. 87 - 100 mm 1 pc. Setting ring (ø87) 1 pc. Spanner 1 pc. Hex wrench 1 pc. Phillips screwdriver 1 pc.	150 mm 1 pc.	468-990	3 - 4	Display unit 3 - 3.5 in 1 pc. 3.5 - 4 in 1 pc. Setting ring (3.5 in DIA.) 1 pc. Spanner 1 pc. Hex wrench 1 pc. Phillips screwdriver 1 pc.	150 mm 1 pc.

\*1 Total 2 pcs. of extension rods: 1 pc. of Order No. **952621** (for measuring range 12 to 16 mm, 16 to 20 mm) and Order No. **952622** (for measuring range 20 to 25 mm).

Two extension rods cannot be connected due to the different mounting positions.

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



## 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.

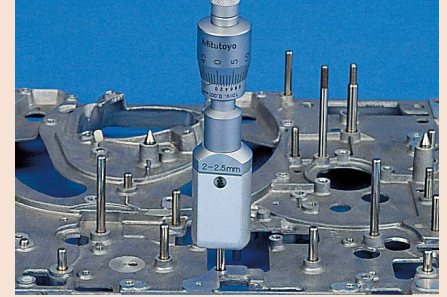


**368-001**  
(Two-point contact type)



**368-168**  
(Three-point contact type)

### Measurement example



### SPECIFICATIONS

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

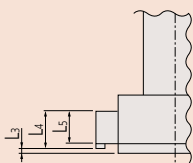
\*1 Additionally, the difference in permissible error allowable is limited to a value within this range, as given in parentheses, and is measured with the entire measuring surface in contact with the object measured.

\*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.

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

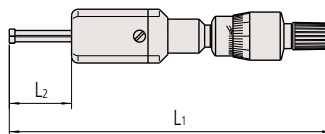
Range (mm)	L <sub>3</sub> (mm)	L <sub>4</sub> (mm)	L <sub>5</sub> (mm)
2 - 6	—	—	2
6 - 12	2 or below	—	2.5
12 - 20	0.3 or below	5.6	3.5
20 - 30		8.3	5.2
30 - 50		13.0	10.0
50 - 100		17.0	14.0
100 - 300	12.4 or below	21.0	13.8



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

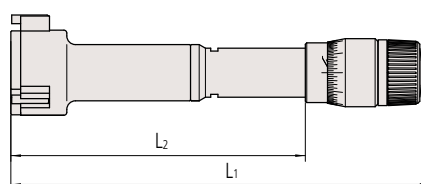
## DIMENSIONS

Unit: mm



Range	L <sub>2</sub>	L <sub>1</sub>
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 <sub>2</sub>	L <sub>1</sub>
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.

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

### Non-Interchangeable-Head Sets



368-906

368-907

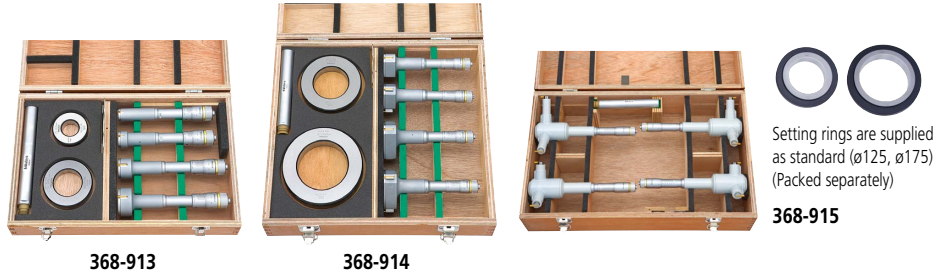
368-911

368-912

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

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

## 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
368-913	20 - 50	0.005	Micrometer head unit	368-918	0.8 - 2	0.002	Micrometer head unit
			20 - 25 mm 1 pc.				0.8 - 1 in 1 pc.
			25 - 30 mm 1 pc.				1 - 1.2 in 1 pc.
			30 - 40 mm 1 pc.				1.2 - 1.6 in 1 pc.
			40 - 50 mm 1 pc.				1.6 - 2 in 1 pc.
			Setting ring (ø25, ø40) 1 pc. each				Setting ring (1 in DIA., 1.6 in DIA.) 1 pc. each
			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.
368-914	50 - 100	0.005	Micrometer head unit	368-919	2 - 4	0.0002	Micrometer head unit
			50 - 63 mm 1 pc.				2 - 2.5 in 1 pc.
			62 - 75 mm 1 pc.				2.5 - 3 in 1 pc.
			75 - 88 mm 1 pc.				3 - 3.5 in 1 pc.
			87 - 100 mm 1 pc.				3.5 - 4 in 1 pc.
			Setting ring (ø62, ø87) 1 pc. each				Setting ring (2.5 in DIA., 3.5 in DIA.) 1 pc. each
			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.
368-915	100 - 200	0.005	Micrometer head unit	368-920	4 - 8	0.0002	Micrometer head unit
			100 - 125 mm 1 pc.				4 - 5 in 1 pc.
			125 - 150 mm 1 pc.				5 - 6 in 1 pc.
			150 - 175 mm 1 pc.				6 - 7 in 1 pc.
			175 - 200 mm 1 pc.				7 - 8 in 1 pc.
			Setting ring (ø125, ø175) 1 pc. each				Setting ring (5 in DIA., 7 in DIA.) 1 pc. each
			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).



## Holtest (Type II) SERIES 368 — Three-point Internal Micrometers

- Holtests type II is equipped with contact points of alloy steel and has the same accuracy as the titanium model.
- For details of Setting Rings, refer to page C-52.
- Constant-force device allows stable measurement.
- Deep holes can be measured by attaching an Extension Rod (optional).



### Measurement example



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

Range (mm)	L <sub>3</sub> (mm)	L <sub>5</sub> (mm)
12 - 20	2.6 or below	3.5
20 - 30	3.4 or below	5.2
30 - 50		10.0
50 - 100		14.0
100 - 300	19.6 or below	13.8

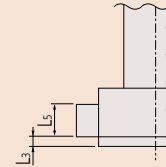
### SPECIFICATIONS

Metric Individual					Inch Individual						
Order No.	Range* <sup>2</sup> (mm)	Graduation (mm)	Maximum permissible error $J_{MPE}$ (μm)* <sup>1</sup>	Extension Rod (optional)	Order No.	Range* <sup>2</sup> (in)	Graduation (in)	Maximum permissible error $J_{MPE}$ (in)* <sup>1</sup>	Extension Rod (optional)		
368-764	12 - 16	0.005	±3 (maximum difference 3)	952621 (150 mm)	368-864	0.5 - 0.65	0.0002	±0.00015 (maximum difference 0.00015)	952621 (150 mm)		
368-765	16 - 20				368-865	0.65 - 0.8					
368-766	20 - 25			±4 (maximum difference 4)	952622 (150 mm)	368-866			0.8 - 1	±0.0002 (maximum difference 0.0002)	952622 (150 mm)
368-767	25 - 30					368-867			1 - 1.2		
368-768	30 - 40			±5 (maximum difference 5)	952623 (150 mm)	368-868			1.2 - 1.6	±0.00025 (maximum difference 0.00025)	952623 (150 mm)
368-769	40 - 50					368-869			1.6 - 2		
368-770	50 - 63					368-870			2 - 2.5		
368-771	62 - 75			±6 (maximum difference 6)	952623 (150 mm)	368-871			2.5 - 3	±0.0003 (maximum difference 0.0003)	952623 (150 mm)
368-772	75 - 88					368-872			3 - 3.5		
368-773	87 - 100					368-873			3.5 - 4		
368-774	100 - 125				368-874	4 - 5					
368-775	125 - 150				368-875	5 - 6					
368-776	150 - 175				368-876	6 - 7					
368-777	175 - 200				368-877	7 - 8					
368-778	200 - 225				368-878	8 - 9					
368-779	225 - 250				368-879	9 - 10					
368-780	250 - 275				368-880	10 - 11					
368-781	275 - 300				368-881	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.



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

### DIMENSIONS

Unit: mm	Range		L <sub>2</sub>	L <sub>1</sub>
		12 - 16, 16 - 20	82	126 - 130
	20 - 25, 25 - 30	94	137 - 142	
	30 - 40, 40 - 50	102	145 - 155	
	50 - 63, 62 - 75, 75 - 88, 87 - 100	105	150 - 163	
	100 - 125, 125 - 150, 150 - 175, 175 - 200	161	227 - 252	
	200 - 225, 225 - 250, 250 - 275, 275 - 300			

Note: External appearance differs depending on the measuring range.

Non-Interchangeable-Head Sets



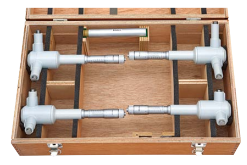
368-991



368-992



368-993



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

368-994

Metric			
Order No.	Range* (mm)	Graduation (mm)	Content of Set
368-991	12 - 20		Micrometer head unit 12 - 16 mm 1 pc. 16 - 20 mm 1 pc. Setting ring (ø16) 1 pc. Extension rod (150 mm) 1 pc. Spanner 2 pcs. Hex wrench 1 pc.
			368-992
368-993	50 - 100	0.005	Micrometer head unit 50 - 63 mm 1 pc. 62 - 75 mm 1 pc. 75 - 88 mm 1 pc. 87 - 100 mm 1 pc. Setting ring (ø62, ø87) 1 pc. each Extension rod (150 mm) 1 pc. Spanner 2 pcs. Hex wrench 1 pc.
368-994	100 - 200		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			
Order No.	Range* (in)	Graduation (in)	Content of Set
368-995	0.5 - 0.8		Micrometer head unit 0.5 - 0.65 in 1 pc. 0.65 - 0.8 in 1 pc. Setting ring (0.65 in DIA.) 1 pc. Extension rod (150 mm) 1 pc. Spanner 2 pcs. Hex wrench 1 pc.
			368-996
368-997	2 - 4	0.0002	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. 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.
368-998	4 - 8		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).

**ABSOLUTE Borematic**  
**SERIES 568 — ABSOLUTE Digimatic Snap-Open Bore Gages**

- The Borematic allows quick and easy measurement with lever operation.
- Titanium-coated measuring pins provide excellent durability and impact resistance.
- Three-Point contact measuring head enables stable measurement.
- Deep holes can be measured by attaching an Extension Rod (optional).



**DIMENSIONS**

Unit: mm

Range	L2	L1
6 - 8, 8 - 10, 10 - 12 mm	83	284
12 - 16, 16 - 20 mm	53	255
20 - 25, 25 - 30 mm	59	261
30 - 40, 40 - 50 mm	67	269
50 - 63, 62 - 75, 75 - 88, 87 - 100, 100 - 113, 112 - 125 mm	75	277

Note: External appearance differs depending on the measuring range.

**MeasurLink** ENABLED  
Data Management Software by Mitutoyo



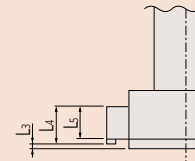
**ABSOLUTE**™

**Measurement example**



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

Range (mm)	L3 (mm)	L4 (mm)	L5 (mm)
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 - 125		17.0	14.0



**Functions**

- GO/NO-GO judgment
- GO/NO-GO judgment zoom
- 2-Point Preset
- Zero-setting
- Data hold, Error alarm
- Low battery voltage alert
- Data output
- Function Lock
- 330° rotary display
- ON/OFF function
- inch/mm conversion (inch/mm type)

**Optional Accessories**

Order No.	Type	description
905338	F	Connecting cable (1 m)
905409	F	Connecting cable (2 m)
06AFM380F	F	USB Input Tool Direct (2 m)
02AZD790F	F	Connecting cables for <b>U-WAVE-T</b> (160 mm)
02AZE140F	F	Connecting cables for <b>U-WAVE-T</b> For foot switch

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

## SPECIFICATIONS

Metric		Individual			
Order No.	Range*2 (mm)	Resolution (mm)	Maximum permissible error $J_{MPE} (\mu\text{m})^{*1}$	Mass (g)	Extension Rod (optional)
568-361	6 - 8	0.001	$\pm 5$ (maximum difference 5)	480	952322 (100 mm)
568-362	8 - 10			485	
568-363	10 - 12			485	
568-364	12 - 16			475	952621 (150 mm)
568-365	16 - 20			480	
568-366	20 - 25		$\pm 6$ (maximum difference 6)	540	952622 (150 mm)
568-367	25 - 30			555	
568-368	30 - 40			565	
568-369	40 - 50			610	952623 (150 mm)
568-370	50 - 63			730	
568-371	62 - 75			740	
568-372	75 - 88			790	
568-373	87 - 100			800	
568-374	100 - 113			900	
568-375	112 - 125			910	

Inch / Metric		Individual			
Order No.	Range*2 (in)	Resolution	Maximum permissible error $J_{MPE} (\text{in})^{*1}$	Mass (g)	Extension Rod (optional)
568-461	0.275 - 0.35	0.00005 in/ 0.001 mm	$\pm 0.00025$ (maximum difference 0.00025)	480	952322 (100 mm)
568-462	0.35 - 0.425			485	
568-463	0.425 - 0.5			485	
568-464	0.5 - 0.65			475	952621 (150 mm)
568-465	0.65 - 0.8			480	
568-466	0.8 - 1		$\pm 0.0003$ (maximum difference 0.0003)	540	952622 (150 mm)
568-467	1 - 1.2			555	
568-468	1.2 - 1.6			565	
568-469	1.6 - 2			610	952623 (150 mm)
568-470	2 - 2.5			730	
568-471	2.5 - 3			740	
568-472	3 - 3.5			790	
568-473	3.5 - 4			800	
568-474	4 - 4.5			900	
568-475	4.5 - 5			910	

- Response speed: Unlimited
- Battery: SR44 (1 pc.), **938882**, for initial operational checks (standard accessory)
- Scale type: Electrostatic capacitance type absolute encoder
- Battery life: Approx. 5,000 hours in continuous use

\*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.

**ABSOLUTE Borematic  
SERIES 568 — ABSOLUTE Digimatic Snap-Open Bore Gages**

**Interchangeable-Head Bore Gage Sets**



568-924



568-926

Metric		
Order No.	Range (mm)	Content of Set
568-924	6 - 12	Display unit 1 pc.
		Measuring head 6 - 8 mm 1 pc.
		8 - 10 mm 1 pc.
		10 - 12 mm 1 pc.
		Attachment 1 pc.
		Setting ring (ø8, ø10) 1 pc. each
Spanner 3 pcs.		
568-925	12 - 25	Display unit 1 pc.
		Measuring head 12 - 16 mm 1 pc.
		16 - 20 mm 1 pc.
		20 - 25 mm 1 pc.
		Attachment 2 pcs.
		Setting ring (ø16, ø20) 1 pc. each
Spanner 2 pcs.		
568-926	25 - 50	Display unit 1 pc.
		Measuring head 25 - 30 mm 1 pc.
		30 - 40 mm 1 pc.
		40 - 50 mm 1 pc.
		Attachment 1 pc.
		Setting ring (ø30, ø40) 1 pc. each
Spanner 2 pcs.		
568-927	50 - 100	Display unit 1 pc.
		Measuring head 50 - 63 mm 1 pc.
		62 - 75 mm 1 pc.
		75 - 88 mm 1 pc.
		87 - 100 mm 1 pc.
		Attachment 1 pc.
Setting ring (ø62, ø87) 1 pc. each		
Spanner 2 pcs.		

Inch / Metric		
Order No.	Range (in)	Content of Set
568-928	0.275 - 0.5	Display unit 1 pc.
		Measuring head 0.275 - 0.35 in 1 pc.
		0.35 - 0.425 in 1 pc.
		0.425 - 0.5 in 1 pc.
		Attachment 1 pc.
		Setting ring (0.35 in DIA., 0.425 in DIA.) 1 pc. each
Spanner 3 pcs.		
568-929	0.5 - 1	Display unit 1 pc.
		Measuring head 0.5 - 0.65 in 1 pc.
		0.65 - 0.8 in 1 pc.
		0.8 - 1 in 1 pc.
		Attachment 2 pcs.
		Setting ring (0.65 in DIA., 0.8 in DIA.) 1 pc. each
Spanner 2 pcs.		
568-930	1 - 2	Display unit 1 pc.
		Measuring head 1 - 1.2 in 1 pc.
		1.2 - 1.6 in 1 pc.
		1.6 - 2 in 1 pc.
		Attachment 1 pc.
		Setting ring (1.2 in DIA., 1.6 in DIA.) 1 pc. each
Spanner 2 pcs.		
568-936	2 - 4	Display unit 1 pc.
		Measuring head 2 - 2.5 in 1 pc.
		2.5 - 3 in 1 pc.
		3 - 3.5 in 1 pc.
		3.5 - 4 in 1 pc.
		Attachment 1 pc.
Setting ring (2.5 in DIA., 3.5 in DIA.) 1 pc. each		
Spanner 2 pcs.		

## Non-Interchangeable-Head Snap-Open Bore Gage Sets

Each set includes complete gages (display units and measuring heads for each size).



568-955



568-957



568-959

Metric		
Order No.	Range (mm)	Content of Set
568-955	6 - 12	Display unit
		6 - 8 mm
		8 - 10 mm
		10 - 12 mm
		Setting ring (ø8, ø10)
		1 pc.
		1 pc.
		1 pc.
		1 pc. each
		3 pcs.
568-956	12 - 25	Display unit
		12 - 16 mm
		16 - 20 mm
		20 - 25 mm
		Setting ring (ø16, ø20)
		1 pc.
		1 pc.
		1 pc.
		1 pc. each
		2 pcs.
568-957	25 - 50	Display unit
		25 - 30 mm
		30 - 40 mm
		40 - 50 mm
		Setting ring (ø30, ø40)
		1 pc.
		1 pc.
		1 pc.
		1 pc. each
		2 pcs.
568-958	50 - 75	Display unit
		50 - 63 mm
		62 - 75 mm
		Setting ring (ø62)
		1 pc.
		1 pc.
		1 pc.
		2 pcs.
568-959	75 - 100	Display unit
		75 - 88 mm
		87 - 100 mm
		Setting ring (ø87)
		1 pc.
		1 pc.
		1 pc.
		2 pcs.

Inch / Metric		
Order No.	Range (in)	Content of Set
568-965	0.275 - 0.5	Display unit
		0.275 - 0.35 in
		0.35 - 0.425 in
		0.425 - 0.5 in
		Setting ring
		(0.35 in DIA., 0.425 in DIA.)
		1 pc.
		1 pc.
		1 pc.
		1 pc. each
		3 pcs.
568-966	0.5 - 1	Display unit
		0.5 - 0.65 in
		0.65 - 0.8 in
		0.8 - 1 in
		Setting ring
(0.65 in DIA., 0.8 in DIA.)		
		1 pc.
		1 pc.
		1 pc.
		1 pc. each
		2 pcs.
568-967	1 - 2	Display unit
		1 - 1.2 in
		1.2 - 1.6 in
		1.6 - 2 in
		Setting ring
(1.2 in DIA., 1.6 in DIA.)		
		1 pc.
		1 pc.
		1 pc.
		1 pc. each
		2 pcs.
568-968	2 - 3	Display unit
		2 - 2.5 in
		2.5 - 3 in
		Setting ring (2.5 in DIA.)
		1 pc.
		1 pc.
		1 pc.
		2 pcs.
568-969	3 - 4	Display unit
		3 - 3.5 in
		3.5 - 4 in
		Setting ring (3.5 in DIA.)
		1 pc.
		1 pc.
		1 pc.
		2 pcs.