

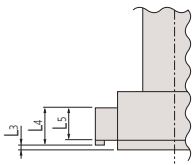
Holtest

For easy and accurate measurement of inside diameters

Digimatic Holtest SERIES 468 — Three-point Internal Micrometers

- Three-point internal micrometer with large LCD readout. (Character height 7.4mm)
- Titanium-coated measuring pins provide excellent durability and impact resistance and allow the instrument to measure right to the bottom of a blind hole.
- One SR44 battery is required and battery life is approx. 1.2 years under normal use.
- ABSolute and INCremental measurement modes allow highly efficient operation.
- The IP65 protection rating allows the instrument to be used in the presence of splashing coolant.
- Measurements can be made close to the bottom of a blind hole.
- Deep holes can be measured by attaching an extension rod (optional).
- A function lock prevents accidental change of reference point.
- Measurement data output enables operation with Statistical Process Control (SPC) and measurement control systems. Refer to page A-3.
- An interface input tool is available for transferring measurement data, under keyboard control, directly to commercial spreadsheet software. Refer to page A-5.
- Interchangeable-Head Sets (interchangeable measuring heads type) covering an extended measuring range using multiple heads and Non-interchangeable-Head Sets are available.
- For Setting Rings, refer to page C-47.

Range (mm)	L ₃ (mm)	L ₄ (mm)	L ₅ (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



468-161

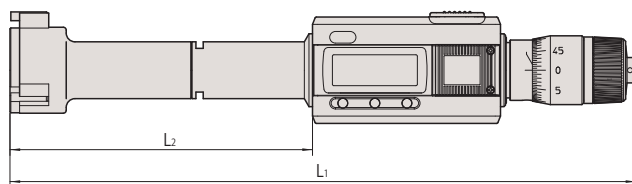


468-168



468-174

DIMENSIONS



Unit: mm

Range	L ₂	L ₁
6-8, 8-10, 10-12mm	59	175 - 177
12-16, 16-20mm	84	197.5 - 201.5
20-25, 25-30mm	93	206.9 - 211.9
30-40, 40-50mm	103.8	214.7 - 224.7
62-75, 75-88, 87-100mm	105.4	219.6 - 232.6
100-125, 125-150, 150-175, 175-200, 200-225, 225-250, 250-275, 275-300mm	151.4	286.3 - 311.3

1) L₂ is maximum depth of measurement possible.
2) External view differs depending on measurement range.



These marks indicate that a product has successfully passed IP65-level testing, which is carried out by the independent German certification organization TÜV Rheinland.



(Refer to page IX for details.)



An inspection certificate is supplied as standard. Refer to page IX for details.

IP Codes

Level 6: Dust-proof.

Degree of protection against solid foreign objects. No ingress of dust allowed.

Level 5: Protected against water jets.

Degree of protection against water. Water projected in jets against the enclosure from any direction shall have no harmful effects.

Technical Data

Display: LCD

Battery: SR44 (1 pc), **938882**, for initial operational checks (standard accessory)

Functions

Zero-setting

Origin restoration

Data hold

2-point Preset

Function lock (see illustration of lock symbol below)



inch/mm readout (inch/mm models)

Automatic power ON/OFF

Error alarm

Data output

Optional accessories

Refer to page A-21 for details.

• USB Input Tool Direct (2m): **06ADV380B**

• Connecting cables for **U-WAVE-T**

For standard (160mm): **02AZD790B**

For foot switch: **02AZE140B**

Optional accessories

Shown mounted on stand using bracket



Mounting bracket
No.04AZB157

For details of Special-order Products,
refer to page C-49.

SPECIFICATIONS

Metric					
Order No.	Range	Resolution	Accuracy* ¹	Optional Accessories* ²	
				Extension rod	SPC cable
468-161	6 - 8mm	0.001mm	±2μm (within 2μm)	952322 (100mm)	05CZA662 (1m) 05CZA663 (2m)
468-162	8 - 10mm				
468-163	10 - 12mm				
468-164	12 - 16mm				
468-165	16 - 20mm				
468-166	20 - 25mm		±3μm (within 3μm)	952622 (150mm)	
468-167	25 - 30mm				
468-168	30 - 40mm				
468-169	40 - 50mm				
468-170	50 - 63mm				
468-171	62 - 75mm		±5μm (within 5μm)	952623 (150mm)	
468-172	75 - 88mm				
468-173	87 - 100mm				
468-174	100 - 125mm				
468-175	125 - 150mm				
468-176	150 - 175mm				
468-177	175 - 200mm				
468-178	200 - 225mm				
468-179	225 - 250mm				
468-180	250 - 275mm				
468-181	275 - 300mm				

*1 Excluding quantizing error.

Accuracy: values measured with the entire measuring face.

Maximum difference: differences between the maximum and minimum values.

*2 Setting ring and extension rod: optional.

* It is not advisable to use measuring heads other than as supplied as a standard accessory, or widen a measuring range by using any other multiple sub-measuring heads. (The measuring accuracy in such cases is not guaranteed.)

Inch/Metric						
Order No.	Range	Resolution	Accuracy* ¹	Optional Accessories* ²		
				Extension rod	SPC cable	
468-261	.275" - .35"	.00005" / 0.001mm	±.0001" (within .0001")	952322 (100mm)	05CZA662 (1m) 05CZA663 (2m)	
468-262	.35" - .425"					
468-263	.425" - .5"					
468-264	.5" - .65"					
468-265	.65" - .8"					
468-266	.8" - 1"		±.00015" (within .00015")	952622 (150mm)		
468-267	1" - 1.2"					
468-268	1.2" - 1.6"					
468-269	1.6" - 2"					
468-270	2" - 2.5"					
468-271	2.5" - 3"		.0001" / 0.001mm	±.00025" (within .00025")		952623 (150mm)
468-272	3" - 3.5"					
468-273	3.5" - 4"					
468-274	4" - 5"					
468-275	5" - 6"					
468-276	6" - 7"					
468-277	7" - 8"					
468-278	8" - 9"					
468-279	9" - 10"					
468-280	10" - 11"					
468-281	11" - 12"					

*1 Excluding quantizing error.

Accuracy: values measured across the entire measuring face.

Maximum difference: differences between the maximum and minimum values.

*2 Setting ring and extension rod: optional.

* It is not advisable to use measuring heads other than as supplied as a standard accessory, or widen a measuring range by using any other multiple sub-measuring heads. (The measuring accuracy in such cases is not guaranteed.)



Interchangeable-Head Sets (interchangeable
measuring heads type)

* For details, refer to page C-5.



Non-interchangeable-Head Sets

** For details, refer to page C-6.

Holtest

For easy and accurate measurement of inside diameters

Interchangeable-Head Sets

Metric				Inch/Metric			
Set Order No.	Range*	Content of set	Accessories (optional)	Set Order No.	Range*	Content of set	Accessories (optional)
468-971	6 - 12mm	Display unit 6 - 12mm 1 pc Measuring head 6 - 8mm 1 pc 8 - 10mm 1 pc 10 - 12mm 1 pc Setting ring (ø8, ø10) 1 pc each Extension rod (100mm) 1 pc Spanner 2 pcs Hex wrench 1 pc Phillips screw driver 1 pc		468-976	.275-.5"	Display unit .275-.5" 1 pc Measuring head .275-.35" 1 pc .35-.425" 1 pc .425-.5" 1 pc Setting ring (.35" DIA., .425" DIA.) 1 pc each Extension rod (100mm) 1 pc Spanner 2 pcs Hex wrench 1 pc Phillips screw driver 1 pc	
468-972	12 - 20mm	Display unit 12 - 20mm 1 pc Measuring head 12 - 16mm 1 pc 16 - 20mm 1 pc Setting ring (ø16) 1 pc Extension rod (150mm) 1 pc Spanner 2 pcs Hex wrench 1 pc Phillips screw driver 1 pc		468-977	.5-.8"	Display unit .5-.8" 1 pc Measuring head .5-.65" 1 pc .65-.8" 1 pc Setting ring (.65" DIA.) 1 pc Extension rod (150mm) 1 pc Spanner 2 pcs Hex wrench 1 pc Phillips screw driver 1 pc	
468-973	20 - 50mm	Display unit 20 - 50mm 1 pc Measuring head 20 - 25mm 1 pc 25 - 30mm 1 pc 30 - 40mm 1 pc 40 - 50mm 1 pc Setting ring (ø25, ø40) 1 pc each Extension rod (150mm) 1 pc Spanner 2 pcs Hex wrench 1 pc Phillips screw driver 1 pc	SPC cable with data switch 05CZA662 (1m) 05CZA663 (2m)	468-978	.8-2"	Display unit .8-2" 1 pc Measuring head .8-1" 1 pc 1-1.2" 1 pc 1.2-1.6" 1 pc 1.6-2" 1 pc Setting ring (1" DIA., 1.6" DIA.) 1 pc each Extension rod (150mm) 1 pc Spanner 2 pcs Hex wrench 1 pc Phillips screw driver 1 pc	SPC cable with data switch 05CZA662 (1m) 05CZA663 (2m)
468-974	50 - 100mm	Display unit 50 - 100mm 1 pc Measuring head 50 - 63mm 1 pc 62 - 75mm 1 pc 75 - 88mm 1 pc 87 - 100mm 1 pc Setting ring (ø62, ø87) 1 pc each Extension rod (150mm) 1 pc Spanner 2 pcs Hex wrench 1 pc Phillips screw driver 1 pc		468-979	2-4"	Display unit 2-4" 1 pc Measuring head 2-2.5" 1 pc 2.5-3" 1 pc 3-3.5" 1 pc 3.5-4" 1 pc Setting ring (2.5" DIA., 3.5" DIA.) 1 pc each Extension rod (150mm) 1 pc Spanner 2 pcs Hex wrench 1 pc Phillips screw driver 1 pc	
468-975	100 - 200mm	Display unit 100 - 200mm 1 pc Measuring head 100 - 125mm 1 pc 125 - 150mm 1 pc 150 - 175mm 1 pc 175 - 200mm 1 pc Setting ring (ø125, ø175) 1 pc each Extension rod (150mm) 1 pc Spanner 2 pcs Hex wrench 1 pc Phillips screw driver 1 pc		468-980	4-8"	Display unit 4-8" 1 pc Measuring head 4-5" 1 pc 5-6" 1 pc 6-7" 1 pc 7-8" 1 pc Setting ring (5" DIA., 7" DIA.) 1 pc each Extension rod (150mm) 1 pc Spanner 2 pcs Hex wrench 1 pc Phillips screw driver 1 pc	

* It is not advisable to use measuring heads other than as supplied as a standard accessory, or widen a measuring range by using any other multiple sub-measuring heads. (The measuring accuracy in such cases is not guaranteed.)



468-971

468-972

468-973

468-974



Standard accessory Setting Rings (ø125, ø175)

468-975

Optional accessories

Refer to page A-21 for details.
USB Input Tool Direct (2m): **06ADV380B**
Connecting cables for **U-WAVE-T**
For standard (160mm): **02AZD790B**
For foot switch: **02AZE140B**

Non-Interchangeable-Head Sets

Metric					Inch/Metric				
Set Order No.	Range*2	Content of set	Accessories (optional)		Set Order No.	Range*2	Content of set	Accessories (optional)	
			Extension rod	SPC cable				Extension rod	SPC cable
468-981	6 - 12mm	Display unit 6 - 8mm 1 pc 8 - 10mm 1 pc 10 - 12mm 1 pc Setting ring (ø8, ø10) 1 pc each Spanner 2 pcs Hex wrench 1 pc Phillips screw driver 1 pc	100mm 1 pc		468-986	.275"-.5"	Display unit .275-.35" 1 pc .35-.425" 1 pc .425-.5" 1 pc Setting ring (.35" DIA., .425" DIA) 1 pc each Spanner 2 pcs Hex wrench 1 pc Phillips screw driver 1 pc	100mm 1 pc	
468-982	12 - 25mm	Display unit 12 - 16mm 1 pc 16 - 20mm 1 pc 20 - 25mm 1 pc Setting ring (ø16, ø20) 1 pc each Spanner 2 pcs Hex wrench 1 pc Phillips screw driver 1 pc	150mm 2 pcs*1	SPC cable with data switch 05CZA662 (1m) 05CZA663 (2m)	468-987	.5"-1"	Display unit .5-.65" 1 pc .65-.8" 1 pc .8-1" 1 pc Setting ring (.65" DIA., .8" DIA) 1 pc each Spanner 2 pcs Hex wrench 1 pc Phillips screw driver 1 pc	150mm 2 pcs*1	SPC cable with data switch 05CZA662 (1m) 05CZA663 (2m)
468-983	25 - 50mm	Display unit 25 - 30mm 1 pc 30 - 40mm 1 pc 40 - 50mm 1 pc Setting ring (ø30, ø40) 1 pc each Spanner 1 pc Hex wrench 1 pc Phillips screw driver 1 pc	150mm 1 pc		468-988	1"-2"	Display unit 1-1.2" 1 pc 1.2-1.6" 1 pc 1.6-2" 1 pc Setting ring (1.2" DIA., 1.6" DIA) 1 pc each Spanner 1 pc Hex wrench 1 pc Phillips screw driver 1 pc	150mm 1 pc	
468-984	50 - 75mm	Display unit 50 - 63mm 1 pc 62 - 75mm 1 pc Setting ring (ø62) 1 pc Spanner 1 pc Hex wrench 1 pc Phillips screw driver 1 pc	150mm 1 pc		468-989	2"-3"	Display unit 2-2.5" 1 pc 2.5-3" 1 pc Setting ring (2.5" DIA) 1 pc Spanner 1 pc Hex wrench 1 pc Phillips screw driver 1 pc	150mm 1 pc	
468-985	75 - 100mm	Display unit 75 - 88mm 1 pc 87 - 100mm 1 pc Setting ring (ø87) 1 pc Spanner 1 pc Hex wrench 1 pc Phillips screw driver 1 pc	150mm 1 pc		468-990	3"-4"	Display unit 3-3.5" 1 pc 3.5-4" 1 pc Setting ring (3.5" DIA) 1 pc Spanner 1 pc Hex wrench 1 pc Phillips screw driver 1 pc	150mm 1 pc	

*1 Total 2 pcs of extension rods: 1 pcs of Part No. **952621** (for measuring range 12 to 16mm, 16 to 20mm) and Part No. **952622** (for measuring range 20 to 25mm).
Two extension rods cannot be connected due to the different mounting positions.

*2 It is not advisable to use measuring heads other than as supplied as a standard accessory, or widen a measuring range by using any other multiple sub-measuring heads. (The measurement accuracy in such cases is not guaranteed.)



468-981



468-982



468-983



468-984



468-985

Optional accessories

Refer to page A-21 for details.
USB Input Tool Direct (2m): **06ADV380B**
Connecting cables for **U-WAVE-T**
For standard (160mm): **02AZD790B**
For foot switch: **02AZE140B**