

Coolant-proof Micrometer

SERIES 293 — with Dust/Water Protection Conforming to IP65 Level

FEATURES

- IP65 protection level, enabling use in environments exposed to cutting oil, etc*.
*Anti-corrosion treatment is required after use.
- Measurement data output function is available with a water-resistant connection cable.
- Auto power ON/OFF function.
- A nonslip surface with raised dots is employed for the frame cover and surface panel to achieve stable handheld measurement.
- Certificate of inspection* is included.
(2" /50mm or less range models)**
*It is not the type used to obtain calibration certificates.
** except 293-349-30
- With a standard bar except for 0-1"/0-25mm model.
- Supplied in fitted case. Plastic case up to 6"/150mm, wooden box over 6"/150mm.



293-330-30



293-252-30



Oil-resistant materials are used in all plastic components.



Measurement data output function is available with a water-resistant connection cable.



Employed nonslip surface with raised dots



Mitutoyo		CERTIFICATE OF INSPECTION / 検査証明書	
1. Item / 品名	Digital Micrometer	Model No.	293-330-30
2. Range / 測定範囲	0-1" / 0-25mm	Resolution / 分解能	0.00005"
3. Accuracy / 精度	±0.0001" / ±0.0025mm	Flatness / 平面度	0.0001" / 0.0025mm
4. Date of Inspection / 検査日	2023.08.10	Inspector / 検査者	SPC
5. Date of Calibration / 校正日	2023.08.10	Calibration / 校正	OK
6. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
7. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
8. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
9. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
10. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
11. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
12. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
13. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
14. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
15. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
16. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
17. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
18. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
19. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
20. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
21. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
22. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
23. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
24. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
25. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
26. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
27. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
28. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
29. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
30. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
31. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
32. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
33. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
34. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
35. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
36. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
37. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
38. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
39. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
40. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
41. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
42. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
43. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
44. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
45. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
46. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
47. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
48. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
49. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
50. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
51. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
52. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
53. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
54. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
55. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
56. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
57. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
58. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
59. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
60. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
61. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
62. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
63. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
64. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
65. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
66. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
67. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
68. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
69. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
70. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
71. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
72. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
73. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
74. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
75. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
76. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
77. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
78. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
79. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
80. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
81. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
82. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
83. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
84. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
85. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
86. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
87. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
88. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
89. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
90. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
91. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
92. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
93. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
94. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
95. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
96. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
97. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
98. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK
99. Date of Next Inspection / 下次検査日	2024.08.10	Next Inspection / 下次検査	OK
100. Date of Next Calibration / 下次校正日	2024.08.10	Next Calibration / 下次校正	OK

Certificate of inspection

Technical Data

- Accuracy: Refer to the list of specifications.
Resolution: .00005"/0.001mm or 0.001mm (up to 4" models)
.0001" / 0.001mm (over 4" models)
Flatness: .000012"/0.3μm
Parallelism: .00004"/1μm for models up to 2"/50mm
.00008"/2μm for models up to 4"/100mm
.00012"/3μm for models up to 7"/175mm
.00016"/4μm for models up to 11"/275mm
.0002"/5μm for models over 12"/300mm
Measuring faces: Carbide tipped
Display: LCD
Battery: SR44 (1 pc.), **938882**
Battery life: Approx. 2.4 years under normal use
Dust/Water protection level: IP65

Function

- Origin-set, Zero / ABS, Hold, Auto power on/off,
Data output (output models),
inch/mm conversion (on inch/metric models only)
Alarm: Low voltage, Counting value composition error

Optional Accessories

- 05CZA662:** SPC cable with data switch (40"/1m)
05CZA663: SPC cable with data switch (80"/2m)



SPC cable with data switch

SPECIFICATIONS

Metric With ratchet stop

Range	Resolution	Order No.	Accuracy
0 - 25mm	0.001mm	293-230-30 / 293-240-30*	±1μm
25 - 50mm	0.001mm	293-231-30 / 293-241-30*	±1μm
50 - 75mm	0.001mm	293-232-30 / 293-242-30*	±1μm
75 - 100mm	0.001mm	293-233-30 / 293-243-30*	±2μm
100 - 125mm	0.001mm	293-250-30	±2μm
125 - 150mm	0.001mm	293-251-30	±2μm
150 - 175mm	0.001mm	293-252-30	±3μm
175 - 200mm	0.001mm	293-253-30	±3μm
200 - 225mm	0.001mm	293-254-30	±3μm
225 - 250mm	0.001mm	293-255-30	±4μm
250 - 275mm	0.001mm	293-256-30	±4μm
275 - 300mm	0.001mm	293-257-30	±4μm

*without SPC data output

Metric With ratchet thimble

Range	Resolution	Order No.	Accuracy
0 - 25mm	0.001mm	293-234-30 / 293-244-30*	±1μm
25 - 50mm	0.001mm	293-235-30 / 293-245-30*	±1μm
50 - 75mm	0.001mm	293-236-30 / 293-246-30*	±1μm
75 - 100mm	0.001mm	293-237-30 / 293-247-30*	±2μm

*without SPC data output

Metric Micrometer Set

Range	Order No.	Included in set
0-50mm (2pcs. Set)	293-966-30	293-230-30, 293-231-30, 25mm CERA block, plastic case
0-75mm (3pcs. Set)	293-962-30	293-230-30, 293-231-30, 293-232-30, 2 standard bars, plastic case
0-100mm (4pcs. Set)	293-963-30	293-230-30, 293-231-30, 293-232-30, 293-233-30, 3 standard bars, wooden box

Inch/Metric With ratchet stop

Range	Resolution	Order No.	Accuracy
0 - 1" / 0 - 25.4mm	.00005" / 0.001mm	293-330-30 / 293-340-30*	±.00005"
1" - 2" / 25.4 - 50.8mm	.00005" / 0.001mm	293-331-30 / 293-341-30*	±.00005"
2" - 3" / 50.8 - 76.2mm	.00005" / 0.001mm	293-332-30 / 293-342-30*	±.00005"
3" - 4" / 76.2 - 101.6mm	.00005" / 0.001mm	293-333-30 / 293-343-30*	±.0001"
4" - 5" / 101.6 - 127.0mm	.0001" / 0.001mm	293-350-30	±.0001"
5" - 6" / 127.0 - 152.4mm	.0001" / 0.001mm	293-351-30	±.0001"
6" - 7" / 152.4 - 177.8mm	.0001" / 0.001mm	293-352-30	±.00015"
7" - 8" / 177.8 - 203.2mm	.0001" / 0.001mm	293-353-30	±.00015"
8" - 9" / 203.2 - 228.6mm	.0001" / 0.001mm	293-354-30	±.00015"
9" - 10" / 228.6 - 254.0mm	.0001" / 0.001mm	293-355-30	±.0002"
10" - 11" / 254.0 - 279.4mm	.0001" / 0.001mm	293-356-30	±.0002"
11" - 12" / 279.4 - 304.8mm	.0001" / 0.001mm	293-357-30	±.0002"

*without SPC data output

Inch/Metric With ratchet thimble

Range	Resolution	Order No.	Accuracy
0 - 1" / 0 - 25.4mm	.00005" / 0.001mm	293-334-30 / 293-344-30*	±.00005"
0 - 1" / 0 - 25.4mm	.0001" / 0.001mm	293-349-30*	±.0001"
1" - 2" / 25.4 - 50.8mm	.00005" / 0.001mm	293-345-30*	±.00005"
2" - 3" / 50.8 - 76.2mm	.00005" / 0.001mm	293-346-30*	±.00005"
3" - 4" / 76.2 - 101.6mm	.00005" / 0.001mm	293-347-30*	±.0001"

*without SPC data output

Inch/Metric With friction thimble

Range	Resolution	Order No.	Accuracy
0 - 1" / 0 - 25.4mm	.00005" / 0.001mm	293-335-30 / 293-348-30*	±.00005"
1" - 2" / 25.4 - 50.8mm	.00005" / 0.001mm	293-336-30	±.00005"

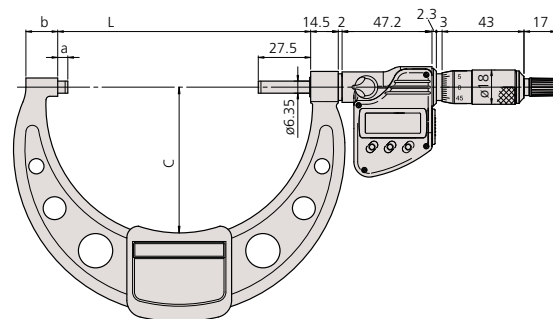
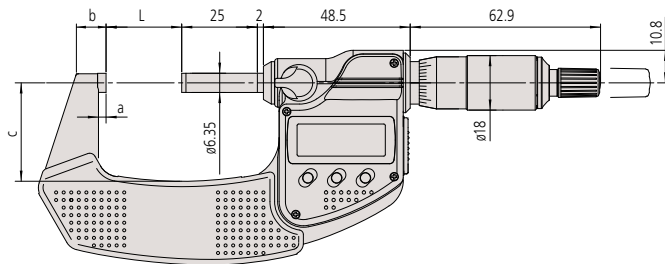
*without SPC data output

Inch/Metric Micrometer Set .00005" / 0.001mm graduation model

Range	Order No.	Included in set
0 - 3" / 0 - 76.2mm (3 pcs. set)	293-960-30	293-330-30, 293-331-30, 293-332-30, 2 standard bars, plastic case
0 - 4" / 0 - 101.6mm (4 pcs. set)	293-961-30	293-330-30, 293-331-30, 293-332-30, 293-333-30, 3 standard bars, wooden box

DIMENSIONS AND MASS

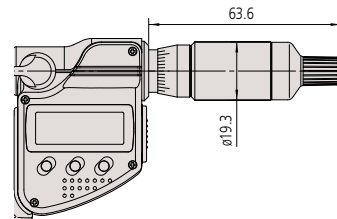
Ratchet-stop type (up to 100mm/4")



Ratchet stop type (over 100mm/4" to 300mm/12")

Ratchet-thimble type and friction-thimble type

Unit: mm



Range (Metric / Inch)	L	a	b	c	Mass (g)
0 - 25mm / 0-1"	0	2.5	9	(25)	270
25 - 50mm / 1-2"	25	2.5	9.8	(32.5)	330
50 - 75mm / 2-3"	50	2.5	12.6	(47)	470
75 - 100mm / 3-4"	75	2.5	14	(60)	625
100 - 125mm / 4-5"	132.8	5.3	16.7	(76.5)	600
125 - 150mm / 5-6"	158.2	5.7	18.8	(91)	740
150 - 175mm / 6-7"	183.6	6.1	19.1	(103.1)	800
175 - 200mm / 7-8"	208.8	6.3	18.2	(115.3)	970
200 - 225mm / 8-9"	234.2	6.7	16.8	(126.8)	1100
225 - 250mm / 9-10"	258	5.5	18	(139.8)	1270
250 - 275mm / 10-11"	284	18	28	(152.3)	1340
275 - 300mm / 11-12"	309	18	28	(166)	1540