

Tube Micrometers

SERIES 395, 295, 115 — Spherical and Cylindrical Anvils

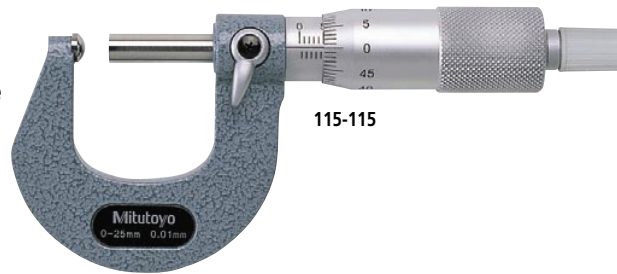
FEATURES

- IP65 water/dust protection (395 series).
- Designed to measure the wall thickness of various tubing.
- The Tube Micrometers have two combinations of measuring faces (carbide-tipped): spherical-flat type, and spherical-spherical type.
- Cylindrical anvils (perpendicular) are also available.
- With Ratchet Stop for constant force.
- With SPC output (series 395).
- With digit counter (series 295).



395-251

Spherical-flat Type



115-115



395-271

Spherical-spherical Type



115-215



(Refer to the page 9 for details.)

Technical Data

Accuracy: Refer to the list of specifications.
(excluding quantizing error for digital models)
Resolution*: 0.001mm or .00005"/0.001mm
Graduation**: 0.01mm, .001" or .0001"
Flatness: 0.6µm
Display*: LCD
Battery*: SR44 (1 pc.), **938882**
Battery life*: Approx. 1.2 years under normal use
Dust/Water protection level*: IP65
*Digital models **Analog models

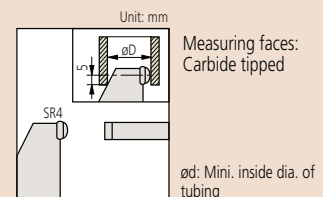
Function of Digital Model

Origin-set, Zero-setting, Data hold, Automatic power ON/OFF, Data output, inch/mm conversion (inch/mm models)
Alarm: Low voltage, Counting value composition error

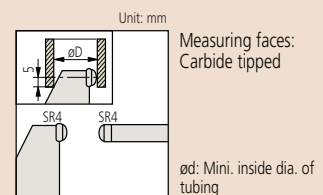
Optional Accessory for Digital Model

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

Spherical anvil type



Spherical anvil-spindle type

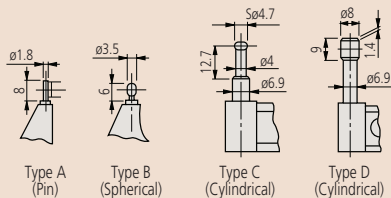


Cylindrical Anvil Type

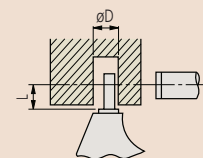


395-261

Cylindrical anvil type



Type A (Pin)
Type B (Spherical)
Type C (Cylindrical)
Type D (Cylindrical)



øD: Mini. inside dia. of tubing
Spindle face: Carbide tipped

Anvil	D	L
Type A	2	4
Type B	3.6	4
Type C	4.8	12
Type D	8.2	22

SPECIFICATIONS

Metric Digital model with spherical anvil			
Range	Order No.	Accuracy	Remarks
0 - 25mm	395-251 ^{S-F}	±2μm	D: 15mm
	395-271 ^{S-S}	±2μm	D: 15mm
25 - 50mm	395-252 ^{S-F}	±2μm	D: 15mm
	395-272 ^{S-S}	±2μm	D: 15mm
50 - 75mm	395-253 ^{S-F}	±2μm	D: 19mm
	395-273 ^{S-S}	±2μm	D: 19mm
75 - 100mm	395-254 ^{S-F}	±3μm	D: 20mm
	395-274 ^{S-S}	±3μm	D: 20mm

S-F: Spherical anvil and flat spindle
S-S: Spherical anvil and spherical spindle

Metric Digital model with cylindrical anvil			
Range	Order No.	Accuracy	Remarks
0 - 25mm	395-261	±3μm	Type A
	395-262	±3μm	Type B
	395-263	±3μm	Type C
	395-264	±3μm	Type D

Metric Mechanical counter model with spherical anvil			
Range	Order No.	Accuracy	Remarks
0 - 25mm	295-115 ^{S-F}	±3μm	D: 10mm
	295-215 ^{S-S}	±3μm	D: 10mm

S-F: Spherical anvil and flat spindle
S-S: Spherical anvil and spherical spindle

Metric With spherical anvil			
Range	Order No.	Accuracy	Remarks
0 - 25mm	115-115 ^{S-F}	±3μm	D: 10mm
	115-215 ^{S-S}	±3μm	D: 10mm
25 - 50mm	115-116 ^{S-F}	±3μm	D: 11mm
	115-216 ^{S-S}	±3μm	D: 11mm
50 - 75mm	115-117 ^{S-F}	±3μm	D: 17mm
	115-217 ^{S-S}	±3μm	D: 17mm
75 - 100mm	115-118 ^{S-F}	±4μm	D: 18mm
	115-218 ^{S-S}	±4μm	D: 18mm

S-F: Spherical anvil and flat spindle
S-S: Spherical anvil and spherical spindle

Metric With cylindrical anvil			
Range	Order No.	Accuracy	Remarks
0 - 25mm	115-302	±3μm	Type A
	115-308	±3μm	Type B
	115-315	±3μm	Type C
	115-316	±3μm	Type D
25 - 50mm	115-303	±3μm	Type A
	115-309	±3μm	Type B

Inch/Metric Digital model with spherical anvil			
Range	Order No.	Accuracy	Remarks
0 - 1"	395-351 ^{S-F}	±.0001"	D: .59"
	395-371 ^{S-S}	±.0001"	D: .59"
1" - 2"	395-352 ^{S-F}	±.0001"	D: .59"
	395-372 ^{S-S}	±.0001"	D: .59"
2" - 3"	395-353 ^{S-F}	±.0001"	D: .75"
	395-373 ^{S-S}	±.0001"	D: .75"
3" - 4"	395-354 ^{S-F}	±.00015"	D: .79"
	395-374 ^{S-S}	±.00015"	D: .79"

S-F: Spherical anvil and flat spindle
S-S: Spherical anvil and spherical spindle

Inch/Metric Digital model with cylindrical anvil			
Range	Order No.	Accuracy	Remarks
0 - 1"	395-362	±.00015"	Type B
	395-363	±.00015"	Type C
	395-364	±.00015"	Type D

Inch Mechanical counter model with spherical anvil			
Range	Order No.	Accuracy	Remarks
0 - 1"	295-153 ^{S-F} *	±.00015"	D: .40"
	295-253 ^{S-S} *	±.00015"	D: .40"

S-F: Spherical anvil and flat spindle
S-S: Spherical anvil and spherical spindle
*.0001" reading is obtained with vernier.

Inch With spherical anvil			
Range	Order No.	Accuracy	Remarks
0 - 1"	115-153 ^{S-F} *	±.00015"	D: .40"
	115-253 ^{S-S} *	±.00015"	D: .40"
1" - 2"	115-242 ^{S-S}	±.00015"	D: .44"
2" - 3"	115-243 ^{S-S}	±.00015"	D: .67"

S-F: Spherical anvil and flat spindle
S-S: Spherical anvil and spherical spindle
*.0001" reading is obtained with vernier.

Inch With cylindrical anvil			
Range	Order No.	Accuracy	Remarks
0 - 1"	115-305	±.00015"	Type A
	115-313*	±.00015"	Type C
	115-314*	±.00015"	Type D

*.0001" reading is obtained with vernier.