

Micrometer Head

Micrometer Heads
SERIES 110 — Differential Screw Thread Translator
(Extra-Fine Feed) Type

- Differential movements of spindle threads and units allow extra-fine spindle feeding (0.05 mm/rev), resulting in high-resolution measurements.

SPECIFICATIONS

Metric				
Code No.	Range (mm)		Graduation (mm)	
110-101	0 - 2.5		0.001	
110-102			0.0001	
110-105-10	0 - 1		0.001	
110-106-10			0.0001	
110-107-10			0.001	
110-108-10			0.0001	
110-502-10	Thimble (fine)	0 - 0.2	Thimble (fine)	0.0005
	Thimble (coarse)	0 - 13	Thimble (coarse)	0.01

Code No.	Stem dia. (mm)	Stem	Spindle end	Maximum permissible error J_{MPE}^{*2} (μm)
110-101	12	W/clamp nut	Flat (carbide tip)	±5/±1.5
110-102				±3/±1.5
110-105-10			Spherical (SR10) (carbide tip)	
110-106-10				
110-107-10			Spherical	
110-108-10	±3/±1.5			
110-502-10	9.5		Spherical	±3/±1.5

Inch				
Code No.	Range (in)		Graduation (in)	
110-111	0 - 0.05		0.00002	
110-112			0.000005	
110-115-10*1	0 - 0.02		0.00002	
110-116-10*1			0.000005	
110-117-10*1			0.00002	
110-118-10*1			0.000005	
110-504-10	Thimble (fine)	0 - 0.006	Thimble (fine)	0.00002
	Thimble (coarse)	0 - 0.5	Thimble (coarse)	0.001

Code No.	Stem dia. (in)	Stem	Spindle end	Maximum permissible error J_{MPE}^{*2} (in)
110-111	0.5	W/clamp nut	Flat (carbide tip)	±0.00025/±0.00006
110-112				±0.00015/±0.00006
110-115-10 ^{*1}			Spherical (SR10) (carbide tip)	
110-116-10 ^{*1}				
110-117-10 ^{*1}				
110-118-10 ^{*1}				
110-504-10	0.375			±0.00015/±0.00006

- Measuring face: Material/Carbide tip (110-502-10/504-10 are alloy tool steel), Hardness/90 HRA or more (Only 110-502-10/504-10 are 60 HRC or more), Lapped

- Scale finishing: Satin-chrome plated

*1 Made-to-order models

*2 Wide range/narrow range

DIMENSIONS

Unit: mm

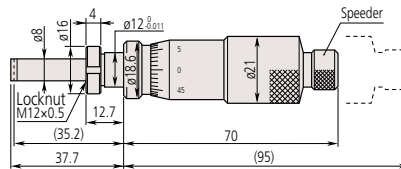
- Differential movement mechanism with double spindle.
- Non-rotating spindle.
- Fixture thickness: 9.5 mm



Equipped with vernier scale



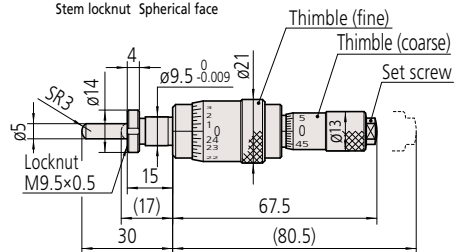
Stem locknut

**110-101****110-102** Equipped with vernier scale

- Dual thimble
- Fixture thickness: 11.5 mm



Stem locknut Spherical face

**110-502-10** Mass: 95 g

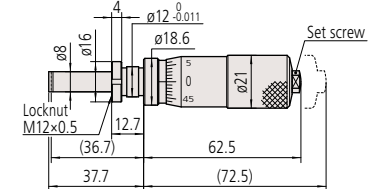
- Differential movement mechanism with double spindle.
- Non-rotating spindle.
- Fixture thickness: 9.5 mm



Equipped with vernier scale



Stem locknut

**110-105-10****110-106-10** Equipped with vernier scale Mass: 150 g

Spherical face



Equipped with vernier scale



SR10 Stem locknut Spherical face

110-107-10**110-108-10** Equipped with vernier scale

(): with spindle fully retracted.