

Specifications

MF Series

Manual Models

Main unit		1010	2010	2017	3017	4020
Without Z-axis scale		MF-A1010D 176-861* ¹	MF-A2010D 176-862* ¹	MF-A2017D 176-863* ¹	MF-A3017D 176-864* ¹	MF-A4020D 176-865* ¹
With Z-axis scale		MF-B1010D 176-866* ¹	MF-B2010D 176-867* ¹	MF-B2017D 176-868* ¹	MF-B3017D 176-869* ¹	MF-B4020D 176-870* ¹
Measuring accuracy* ² (20 °C, when not loaded)		(2.2+0.02L) μm L: measuring length (mm)				
Minimum reading		High accuracy digital scale is mounted 1/0.5/0.1 μm switchable				
Observation	Optical tube	Monocular or binocular TV camera port for all models (observation/TV camera = 50/50)* ⁴ is provided as standard Reticle (broken cross-hair, line width: 5 μm) is provided as standard Various reticles are optional.				
	Incline angle	Angle of column: 25°				
	Observation image	Erect image				
	Observation method	Bright-field observation				
Eyepiece		10X (eyepiece field number: 24) is provided as standard 15X, 20X, Angle eyepieces 10X, Digital angle eyepieces 10X are optional.				
Objective		3X (working distance: 77 mm) is provided as standard 1X, 5X, 20X, 50X, 100X, a pair of sliding nosepieces* ⁵ are optional.				
Stage	Measuring range	100x100 mm	200x100 mm	200x170 mm	300x170 mm	400x200 mm
	Max. table loading	10 kg			20 kg	
	Feed mechanism	Manual and Quick-release mechanism (zero-set switch is incorporated)				
	Swiveling angle	—			±5°	
Internal light source	• LED Illumination Unit	White LED (transmitted/vertical reflected), no step modulated light				
	• Halogen Illumination Unit	12 V, 50 W halogen (transmitted/vertical reflected), no step modulated light				
External light source		Ring light and dual swan-neck light pipe are optional.				
Z axis	Feed mechanism	Coaxial coarse and fine feed, handles on both sides (coarse: 30 mm/rotation, fine: 0.2 mm/rotation)				
	Max. workpiece height	150 mm			220 mm	
Dimensions (WxDxH)	Main unit	562x730x667 mm	624x745x667 mm	642x892x782 mm	692x892x782 mm	756x892x782 mm
	Control unit	—				
	Control unit for illumination unit	114x360x96 mm				
Output		RS-232C output, USB output for Vision Unit				
Mass		Approx. 70 kg	Approx. 75 kg	Approx. 150 kg	Approx. 160 kg	Approx. 165 kg
Max. power consumption* ³		LED: 45 W Halogen: 160 W AC power input connector: 100 to 240 V				

Motor-Driven Z-axis Models

Main unit		1010	2010	2017	3017	4020
With Z-axis scale				MF-J2017D 176-891* ¹	MF-J3017D 176-892* ¹	MF-J4020D 176-893* ¹
Z axis	Feed mechanism	Motor drive (Maximum measuring speed: 20 mm/s), lower limit setting (for collision avoidance with a workpiece)				
	Max. workpiece height	220 mm				
Dimensions (WxDxH)	Main unit			642x892x782 mm	692x892x782 mm	756x892x782 mm
	Control unit	355x364x106.5 mm				
	Control unit for illumination unit	114x360x96 mm				
Output		RS-232C output, USB output for Vision Unit				
Mass				Approx. 160 kg	Approx. 170 kg	Approx. 175 kg
Max. power consumption* ³		LED: 275 W Halogen: 390 W AC power input connector: 100 to 240 V				

Note: The specification other than the above is subject to the manual models.

• Required optional accessory

*1 To denote your AC power cable add the following suffixes to the order No.: A for UL/CSA, D for CEE, DC for CCC, E for BS, K for KC, C and No suffix are required for PSE.

*2 Measured in conformance with JIS B 7153

*3 Optional accessory is NOT target (Main unit and required optional illumination are target)

*4 C mount is required separately.

*5 A pair of Sliding Nosepieces are factory-installed option.