Laser Scan Micrometer LSM-512S

SERIES 544 — High Accuracy Non-contact Measuring System

IP64

Optional Accessories for LSM-512S

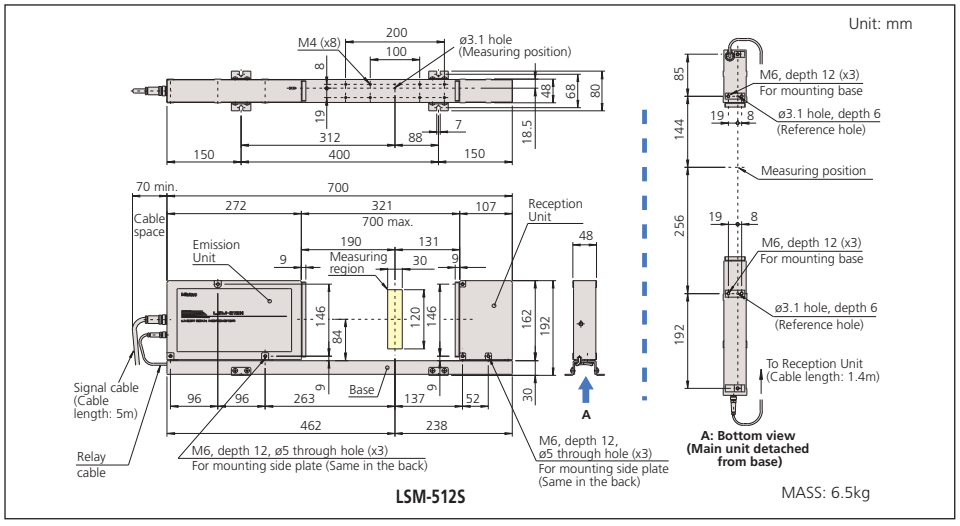
02AGD150: Calibration gage set (ø20mm, ø120mm)
02AGD260: Air blow cover
957608: Air cleaner for air blow cover
02AGC150A: Extension relay cable 1m
02AGC150B: Extension relay cable 3m
02AGC150C: Extension relay cable 5m
02AGN780A: Extension signal cable 5m
02AGN780B: Extension signal cable 10m
02AGN780C: Extension signal cable 15m
02AGN780D: Extension signal cable 20m

SPECIFICATIONS

Model			LSM-512S
Order No.			**544-540**
Applicable display unit			LSM-6200
Laser Scanning Range		inch(mm)	Up to 5.0" (126mm)
Measuring range		inch(mm)	.04 to 4.72" (1 to 120mm)
Resolution		inch(mm)	.000005 to .005" (0.0001 to 0.1mm) [Selectable]
Repeatability [*1]		inch(µm)	±.000033" (±0.85µm) [*2]
Linearity [*1]	Whole range	inch(µm)	±.00024" (±6.0µm) [*3]
	Narrow measuring range	µm	±(4.0 + 0.5 ΔD) [*3][*4]
		inch	±(.00016" + .00002" ΔD) [*3][*4]
Positional error [*1][*5]		inch(µm)	±.0003" (±8.0µm)
Measuring region		inch(mm)	1.2 x 4.72" (30 x 120) [Optical axis direction × Scanning direction]
Number of scans for averaging		scan	1 to 2048
Laser classification			Class 2 (Max. Output: 1.3mW with a scanning laser, semiconductor laser: wavelength 650nm)
Number of laser scans		/sec	3200
Laser scanning rate		inch/sec (m/sec)	35590"/sec (904m/sec)
Protection level			IP64
Distance between the laser emission unit and reception unit		inch(mm)	Standard 12.64" (321mm) Max. 27" (700mm) [*6]
Operation environment		Temperature	0˚C to 40˚C
		Humidity	35%RH to 85%RH [without condensation]
		Altitude	2000m or less
Storage environment		Temperature	-15˚C to 55˚C
		Humidity	35%RH to 85%RH [without condensation]

[*1] Environment for accuracy validation: 20°C ± 1°C temperature; 50% ± 10% humidity.
[*2] A value of ±2σ with a 120mm-diameter gage has been measured for two minutes with a measurement interval of 0.32 seconds, where σ is the standard deviation.
[*3] The value of measurements in the center of the measurement region.
[*4] ΔD is the difference in diameter of the workpiece and the master gage.
[*5] Error due to the positional shift of workpiece in optical axis direction or scanning direction.
[*6] The distance between the laser emission unit and reception unit other than the standard, may affect the accuracy .

DIMENSIONS AND MASS



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