

Laser Scan Micrometer LSM-500S

SERIES 544 — High Accuracy Non-contact Measuring System



544-532

SPECIFICATIONS

Model	LSM-500S	
Order No.	544-532	
Applicable display unit	LSM-6200	
Laser Scanning Range	inch(mm)	Up to .49" (12.5mm) (Detecting regions are limited to about .4" (10mm) approx.)
Measuring range	inch(mm)	.0002 to .08" (0.005 to 2mm) .004 to .08" (0.1 to 2mm) [*1]
Resolution	inch(mm)	.000001 to .0005" (0.00001 to 0.01mm) [Selectable]
Repeatability [*2]	inch(μm)	±.0000012" (±0.03μm) [*3]
Linearity [*2]	inch(μm)	±.000012" (±0.3μm) [*4]
Positional error [*2][*5]	inch(μm)	±.000016" (±0.4μm)
Measuring region	inch(mm)	.04 x .08" (1 x 2mm) [Optical axis direction x Scanning direction]
Number of scans for averaging	scan	16 to 2048 [*6]
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)	2992"/sec (76m/sec)
Protection level	IP64	
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]

Optional Accessories for LSM-500S

02AGD110: Calibration gage set (ø0.1mm, ø2.0mm)

02AGD200: Wire guiding pulley

02AGD220: Air blow cover

957608: Air cleaner for air blow cover

02AGN780A: Extension signal cable 5m

02AGN780B: Extension signal cable 10m

02AGN780C: Extension signal cable 15m

[*1]: Measuring range available when set to "No extra-fine wire measurement" or "Edge specification" in the basic setup mode.

[*2]: Environment for accuracy validation: 20°C ± 1°C temperature; 50% ± 10% humidity.

[*3]: The value of $\pm 2\sigma$ with a 2mm-diameter gage has been measured for two minutes with a measurement interval of 0.32 seconds, where σ is the standard deviation.

[*4]: The value of measurements in the center of the measurement region.

[*5]: Error due to the positional shift of the workpiece in the optical axis direction or scanning direction

[*6]: Averaging scans between 1 and 8 times can be made if "No extra-fine wire measurement" is specified in the basic setup mode. The measuring range, however, is limited to 0.1mm to 2mm in this case.

DIMENSIONS AND MASS

