

LSM-902/6900 Laser Scan Micrometer

LSM-902 (Measurement unit) & LSM-6900 (Display unit) are the most accurate 1" (25mm) measurement range Laser Scan Micrometer in the world.



Features:

- Measuring range – .004 to 1" (0.1 to 25mm) covers most precision parts.
- Repeatability – ±.000002" (±0.05µm) highest repeatability for a 1" (25mm) LSM in the world.
- Linearity – ±.00002" (±0.5µm) over the entire range, and higher linearity in the small range.
- High Resolution – Improves measurement accuracy
- Stable edge detection by using new algorithm.
- Multi-function type display.



Model and Order No.

Model	Order No.	Display type	Application of laser products
LSM-902/6900	544-496A	mm/inch	[FDA]/Class II

LSM-902/6900 Specifications and Accessories

LSM-902		
Measuring range	.004~1.0" (0.1~25mm)	
Reading (Selectable)	.000001~.0005" (0.01~10μm)	
Repeatability / [*1]	±.000002" (±0.05μm) / [*2]	
Linearity / [*1]	Whole range	±.000020" (±0.5μm) / [*3]
	Small range	±(0.3 + 0.1 Δ D)μm [Δ D:mm] / [*3] [*4] ±(.000012 + .0001 Δ D)" [Δ D: inch]
Positional error / [*1] [*5]	±.000020" (±0.5μm)	
Measuring region	±0.6 x 1.0" (±1.5 x 25mm) / [*6]	
Number of scans	800/sec	
Laser wavelength	650nm [Visible LD], 1.5mW (peak)	
Laser scanning speed	2240"/sec (56m/sec)	

LSM-6900		
Display	Fluorescent display 16-digit + 11-digit, Guidance LEDs	
Segment designation	1 to 7 (1 to 3 for Transparent material)	
Edge designation	1 to 255	
Averaging method	Simple averaging	1 to 2048
	Moving averaging	32 to 2048
Measuring function [*7]	Tolerance judgement (GO,±NG); Multi-limit judgement (7 classes); Offset/Zero-set; Abnormal data elimination; Automatic workpiece detection; Reference value setting; Data output condition; Laser power deterioration; Sample measurement; Statistical processing; Dual-program measurement; Automatic measurement using edge mode; Workpiece position display; Transparent object measuring; Key-lock function; mm/inch changeover; Dual-gauge calibration; Selection of resolution; Judgement in ready state; Display of a comma to mark the thousandths position; Mastering; None-display unnecessary digits; Group judgement	
Scanning signal monitor connector	Provided as standard (with the plug)	
Remote interlock connector	Provided as standard (with the plug)	
Power switch	Key switch used	
Built-in interface	RS-232C; Foot switch connector; I/O analog interface	
Optional interface	DCU slot	Digimatic code output unit (2-ch)
	Expansion slot (1-slot)	2nd I/O analog I/F; BCD I/F; GP-IB I/F;
Power supply	AC100V~240V±10%, 50/60Hz, 40VA	

[*1]: Accuracy inspection environment/Temperature 20°C±1°C, Humidity: 50%±10% [*2]: The repeatability is determined by the value for ±2 σ at the measurement interval of 1.28 sec.

[*3]: Specified at the center of the measurement region. [*4]: Δ D: Diameter difference to master gage. [*5]: An error due to workpiece shift either in the optical axis direction or in the scanning direction.

[*6]: The area given by [measuring range on the optical axis] x [measuring range in the scanning direction.] [*7]: The combination of functions is limited, details are described in the user's manual.

STANDARD ACCESSORIES

Order No.	Item	Quantity
02AGC320A	Signal cable (5m/16ft)	1
930966	Power cable	1
934626	GHD lead wire	1
956042	Short plug to Remote-interlock	1
214938	Plug for Remote-interlock/MP121M by Marushin	1
02AGC401	Plug for Scanning signal connector/MP-105LC by Marushin	1
02AGC604	Power ON/OFF key	1
02AGC605	Fuse 1A (Time-lag)	1
99MBC071A	User's manual for LSM-6900 (English)	1
99MBC075A	User's manual for LSM-902 (English / FDA)	1

OPTIONAL ACCESSORIES

Order No.	Item
02AGD180	Calibration gauges set for LSM-902
02AGD270	Workstage for LSM-501/503/902
02AGD280	Adjustable Workstage for LSM-902
02AGC840	Digimatic code output unit (2-ch)
02AGC880	2nd I/O analog interface unit
02AGC910	BCD interface unit
02AGC940	GP-IB interface unit
02AGD600B	Printer & cable set
223663	Printer paper
936937	Digimatic code output cable
937179T	Foot switch

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