

# Laser Scan Micrometer Measuring Unit

Series 544

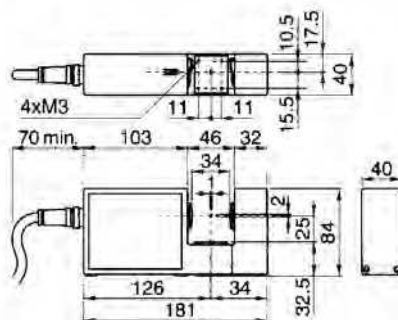
LSM-500S

High Accuracy Non-contact Measuring System

- Measuring range starting from  $\varnothing 5 \mu\text{m}$ .
- Provides ultra-high accuracy with a linearity of  $\pm 0,3 \mu\text{m}$  over the entire measuring range (5  $\mu\text{m}$  up to 2 mm).
- Ultra-high repeatability of  $\pm 0,03 \mu\text{m}$ .
- High scanning rate of 3200 scans/s



LSM-500S



## Specifications

Linearity at 20°C *1	$\pm 0,3 \mu\text{m}$
Repeatability ( $\pm 2 \sigma$ )	$\pm 0,03 \mu\text{m}$
Positional error *2	$\pm 0,4 \mu\text{m}$
Measuring region	1 x 2 mm
Laser wavelength	650 nm, Visible
Scanning rate	3200 scans/s
Scanning speed	76m/s
Applicable laser standards	IEC, FDA

## Optional accessories

No.	Description
02AGD110	Calibration gauge set ( $\varnothing 0,1-2 \text{ mm}$ )
02AGD200	Wire guiding pulley
02AGD220	Air shield
957608	Air cleaner for air shield
02AGN780A	Extension signal cable 5 m
02AGN780B	Extension signal cable 10 m
02AGN780C	Extension signal cable 15 m

Inch/Metric

No.	Range	Resolution (selectable)
544-532	0,005-2 mm / 0.0002-0.08"	0,00001-0,01 mm / 0.000001-0.0005"

Series 544

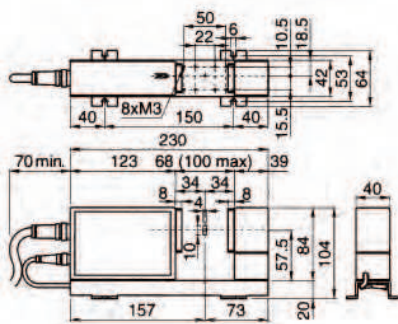
LSM-501S

High Accuracy Non-contact measuring system

- Provides ultra-high accuracy with a linearity of  $\pm 0,5 \mu\text{m}$  over the entire measuring range (0,05 mm to 10 mm) and  $\pm (0,3+0,1\Delta D) \mu\text{m}$  in the narrow range.
- Ultra-High repeatability of  $\pm 0,04 \mu\text{m}$ .
- High scanning rate of 3200 scans/s



LSM-501S



## Specifications

Linearity at 20°C *1	Entire range : $\pm 0,5 \mu\text{m}$ Narrow range : $\pm (0,3+0,1\Delta D) \mu\text{m}$
Repeatability ( $\pm 2 \sigma$ )	$\pm 0,04 \mu\text{m}$
Positional error *2	$\pm 0,5 \mu\text{m}$
Measuring region	2 x 10 mm ( $\varnothing 0,05-0,1 \text{ mm}$ ) 4 x 10 mm ( $\varnothing 0,1-10 \text{ mm}$ )
Laser wavelength	650 nm, Visible
Scanning rate	3200 scans/s
Scanning speed	113 m/s / 4450"/s
Applicable laser standards	IEC, FDA

## Optional accessories

No.	Description
02AGD120	Calibration gauge set ( $\varnothing 0,1-10 \text{ mm}$ )
02AGD210	Wire guiding pulley
02AGD400	Adjustable workstage
02AGD440	Centre support
02AGD450	Adjustable V-block
02AGD230	Air shield
957608	Air cleaner for air shield
02AGC150A	Extension relay cable 1 m
02AGN780A	Extension signal cable 5 m
02AGN780B	Extension signal cable 10 m
02AGN780C	Extension signal cable 15 m

02AGD440 and 02AGD450 : use with an adjustable workstage

\*1 At the centre of the measuring region

\*2 Potential measurement error due to variation in workpiece position within the measuring region

$\Delta D$  = Difference in diameter between the mastergauge and workpiece



Refer to the LSM brochure