

# Laser Scan Micrometers

## SERIES 544 – LSM-506S High Accuracy Non-Contact Measuring System

- General-purpose type with a measuring range of 1 mm to 60 mm.
- Provides high accuracy of  $\pm 3.0 \mu\text{m}$  over the entire measuring range and even better in the narrow range.
- Excellent repeatability of  $\pm 0.36 \mu\text{m}$ .

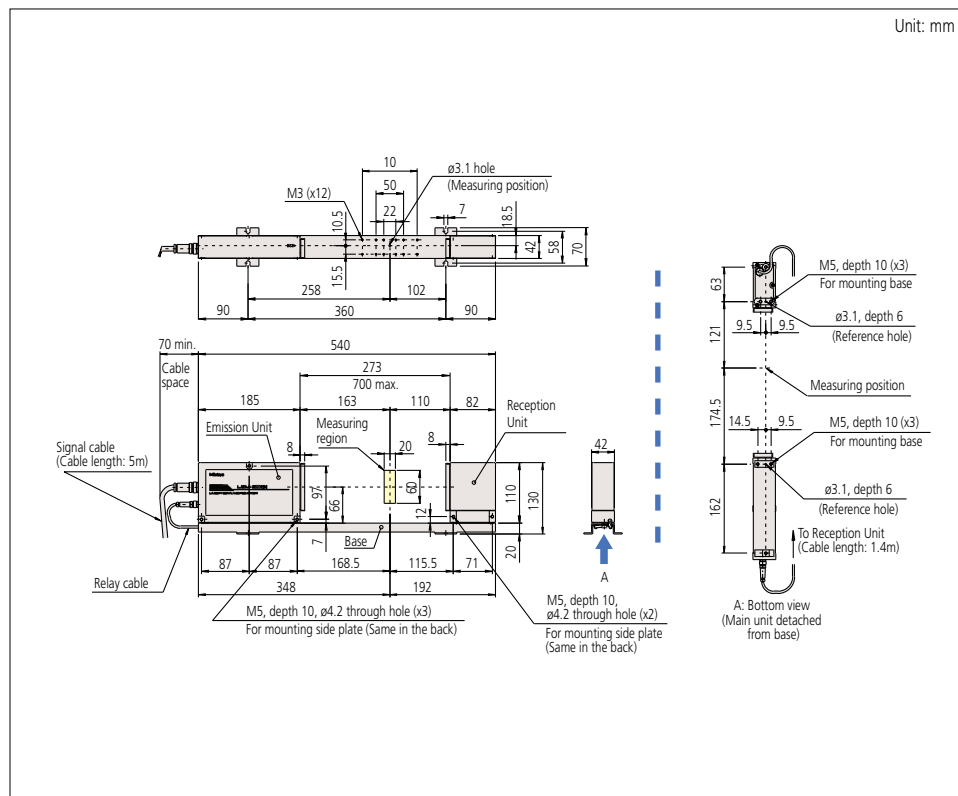


544-538

### SPECIFICATIONS

| Code No. | Range                   | Resolution (selectable)            | Price    |
|----------|-------------------------|------------------------------------|----------|
| 544-538  | 1 - 60 mm (.04 - 2.36") | 0.00005 - 0.1 mm (.000002 - .005") | £6460.00 |

### DIMENSIONS



### Technical Data

Accuracy at 20°C\*

|                                  |                                        |
|----------------------------------|----------------------------------------|
| Entire range:                    | $\pm 3 \mu\text{m}$                    |
| Narrow range:                    | $\pm (1.5 + 0.5 \Delta D) \mu\text{m}$ |
| Repeatability ( $\pm 2\sigma$ ): | $\pm 0.36 \mu\text{m}$                 |
| Positional error**:              | $\pm 4 \mu\text{m}$                    |
| Measuring region:                | 20 x 60 mm                             |
| Laser wavelength:                | 650 nm, Visible                        |
| Scanning rate:                   | 3200 scans/s                           |
| Laser scanning speed:            | 452 m/s                                |
| Protection standard:             | IEC, FDA                               |

\* At the centre of the measuring region.  $\Delta D$  = Difference in diameter between the master gauge and workpiece.

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

### Optional Accessories

|            |                                                                      |          |
|------------|----------------------------------------------------------------------|----------|
| 02AGD140:  | Calibration gauge set ( $\phi 1 \text{ mm}$ , $\phi 60 \text{ mm}$ ) | £403.00  |
| 02AGD520:  | Adjustable workstage                                                 | £2940.00 |
| 02AGD580:  | Centre support*                                                      | £513.00  |
| 02AGD590:  | Adjustable V-block*                                                  | £537.00  |
| 02AGD250:  | Air shield                                                           | £751.00  |
| 957608:    | Air cleaner for air shield                                           | £650.00  |
| 02AGC150A: | Extension relay cable 1 m                                            | £73.00   |
| 02AGC150B: | Extension relay cable 3 m                                            | £77.80   |
| 02AGC150C: | Extension relay cable 5 m                                            | £82.70   |
| 02AGN780A: | Extension signal cable 5 m                                           | £118.00  |
| 02AGN780B: | Extension signal cable 10 m                                          | £156.00  |
| 02AGN780C: | Extension signal cable 15 m                                          | £189.00  |
| 02AGN780D: | Extension signal cable 20 m                                          | £267.00  |

\* Use with an adjustable workstage.