

## MS-9500 XY Automated Stage



The MS-9500 XY motorized stage system has a travel range of 9" by 4" (225 mm x 125 mm) and has been specifically designed to scan eight 25 x 75 mm slides at a time while providing a high resolution, and highly repeatable, means of controlling the X and Y position of the microscope stage. All axes derive their precise control through the use of closed-loop DC servomotors employing high-resolution rotary encoders for positioning feedback. Optional linear encoders improve repeatability to less than 300 nm (typical) compared to the standard 700 nm rms rating, and improve resolution to 50 nm. By using closed-loop control of the stage position, there is no chance that the stage will become lost, as can occur with open-loop micro-stepped stages after a number of moves and direction changes. The microprocessor-controlled MS-2000 Control Unit provides for RS-232 and USB communication with a host computer.

### MS-9500 Options

- X and Y-axis Linear Encoders for high-accuracy positioning, incorporated into the stage plates
- Auto Focus for stages with ASI Z-axis drives (requires composite video signal)
- Other lead screw pitches are available

### Features

- Closed-loop DC servo control of the X and Y-axes for precise positioning and highly repeatable focusing
- Wide dynamic speed range with XY joystick control
- Can be used with ASI's proven Z-axis drives
- Backlit LCD display shows X and Y coordinates
- "Zero" and "Home" button for simple stand-alone operations
- Compact ergonomic tabletop control unit size is 6"D x 9"W x 3"H (9 x 23 16½ cm)
- Microprocessor control with RS-232 serial and USB communications
- Proven operation with many popular software packages
- Suitable for stand-alone, OEM, and specialty applications as well

## Specifications for Standard Configuration

<b>XY axis range of travel</b>	225 mm x 125 mm (9" x 4")
<b>XY axis resolution</b>	100 nm (typical)
<b>XY axis RMS repeatability</b>	< 700 nm (typical)
<b>XY axis maximum velocity</b>	7 mm/sec

## Lead Screw Options

<b>Lead Screw Pitch Options</b>	<b>Rotary Encoder Resolution</b>	<b>Maximum Speed</b>
25.40 mm (Ultra-coarse)	88 nm	28 mm/sec
12.70 mm (Super-coarse)	44 nm	14 mm/sec
6.35 mm (Standard)	22 nm	7 mm/sec

## Linear Encoder Options

<b>Axis</b>	<b>Scale Resolution</b>	<b>Scale Accuracy</b>
XY	20 nm	0.5 $\mu$ m per 10 mm 1.5 $\mu$ m per 100 mm

