

## IPZ-3000 Series Piezo Z-Axis Top Plate Insert



The IPZ-3000 series piezo inserts will fit in most microscope stages with the standard 110 mm x 160 mm (K-size) stage insert opening. The piezo insert uses the same proven technology as our 2000 series as a simple retrofit control on an existing XY stage. Several sample holders are available to fit the IPZ-3000 inserts for holding small dishes, slides or chambers. The piezo can be controlled with the MS-2000 controller, providing both USB and RS-232 communication to a host computer. Users with MS-2000 configuration for XY only can upgrade their controllers for Z control.

### Features

- Proven operation with many software packages
- Closed loop control of the Z-axis position for highly repeatable focusing
- Several travel ranges available: 150 um, 300 um, and 500 um.

### IPZ 3000 Series Sample Holders

IPZ-4001 Accepts a standard 1 x 3 slide, or a 35 mm petri dish.

IPZ-4002 Accepts a standard 2 x 3 slide, or a 50/60 mm petri dish.

IPZ-4003 Accepts the ASI I-2450 Autoclavable stainless steel rectangular chamber with replaceable 50 mm x 24 mm coverglass bottom, sealed in place by an O-ring. Outside dimension is 76.0 mm x 50.5 mm (2.99" x 1.99"). Inside diameter at bottom (viewable window) is 42.7 mm x 16.7 mm (1.68" x 0.65"). Height is 10.7 mm (0.42"). I-2450 must be purchased separately.

IPZ-5001 Holders accept 22 mm x 22 mm cover slip. The Flusehd two stainless still spring clips keep sample in place. The integrated ring allows rotating the sample.

IPZ-5003 The flushed IPZ-5001 sample holder sits cover slip Recessed at .25" or 6.4 mm from the base while the recessed IPZ-5003 sits it at .04" or 1 mm.

IPZ-5002 Holders accept 22 mm x 40 mm cover slip. The Flusehd two stainless still spring clips keep sample in place. The integrated ring allows rotating the sample.

IPZ-5004 The flushed IPZ-5002 sample holder sits cover slip Recessed at .25" or 6.4 mm from the base while the recessed IPZ-5004 sits it at .04" or 1 mm.

## ADEPT Piezo Controller Specifications

Specification	PZ-3150FT	PZ-3300FT	PZ-3500FT
Piezo Travel Range (+/- 5%)	150 um	300 um	500 um
Piezo smallest move / resolution*	2.2 nm	4.5 nm	7.6 nm
Maximum Load for full range travel	2Kg	1Kg	1Kg
Transient Response time**	11 – 15 ms		
External Analog input (BNC)	0 to 10 Volts		
Maximum Input Frequency	20 Hz		
Maximum Continuous Output Current	13mA		

*\*\*Insert only provides piezo Z positioning with nanometer accuracy. Requires modification of existing ASI controller or additional MS1 controller. Requires IPZ-4000 series, or PI 545 series, sample holders sold separately.*

## Product Compatibility

- Leica – DMI3000, DMI4000, DMI5000, DMI6000, DMIRB, DMIRBE, DMIRE, DMIRE2
- Nikon – Diaphot Eclipse TE2000, Eclipse Ti
- Olympus – BX50WI, BX51WI, BX61WI, IX70, IX71, IX81
- Zeiss – Axiovert 200, Axio Observer