

IR 124

Motion Compensation Lens 75mm

The **IR 124 Motion Compensation Lens** can be used to extend the applicability of the **DT 1000 Stress Measurement System**. When **DT 1000** images have unacceptable "edge effects" caused by the subject structure moving in sync with the loading, the motion compensator can be used to improve image quality.

The **Motion Compensation Lens** attaches to the front of the camera head with a bayonet mount. The IR124 device is a 75mm f/3.35 lens attached to a servo-actuator that moves the lens in a linear motion in sync to the structural loading. The operator adjusts amplitude, phase, and direction of motion.

The amount of compensation available depends on the loading frequency and distance to the target. At 10 Hz the compensation is up to 12% of the field-of-view (FOV). Compensation for motions at frequencies as high as 80 Hz can be attained. The system is also capable of following a variable amplitude (random) motion.

The **Motion Compensation Lens** works by moving a lens across the line of view of the camera. The motion of the lens is along a line, therefore the compensation is also along a line. The whole field-of-view is "compensated" equally. This type of motion compensator is not suitable for more complicated motions such as rotation, elongation, or distortion of a specimen.

Performance

Frequency	%FOV
75	4%
70	5%
60	6%
40	14%
20	15%
10	12%
5	12%



Specifications of Optical Component

Type of compensation:	Linear
Size:	11cm high, 11 cm long, 9 cm wide
Weight:	0.5 kg
Minimum focus distance:	25 cm
Field-of-View (FOV):	2.5 cm at 25 cm stand-off distance
Aperture:	f/3.35

Specifications are subject to change without notice.

© 1998 Stress Photonics Inc.
DT 1000 is a trademark of Stress Photonics Inc.

Stress
Photonics

Stress Photonics Inc.

3002 Progress Road • Madison, WI 53716
Tel (608) 224-1230 • Fax (608) 224-1233
Email info@StressPhotonics.com

www.StressPhotonics.com