

G.W. ELLIS FIBEROPTIC LIGHT SCRAMBLER for ZEISS MICROSCOPES,
for TRANSMITTED LIGHT & EPI-FLUORESCENCE

TECHNICAL SPECIFICATIONS

ADVANTAGES

Improves resolution by providing uniform illumination to the full condenser aperture.
In image processing, reduces grey levels required for background subtraction, typically from 110/256 to 35/256 or better.
Isolates lamp heat, EMI, RFI, filter wheel and electronic shutter vibration from microscope.
Lamphouse, filter wheel and shutters can be located outside Faraday cage.

INPUT MODULE

- **Housing** : Black anodized aluminum, finned to dissipate heat.
- **Weight**: 568 grams.
- **Length**: 99 mm. Diameter: 69 mm.
- **Adjustable X-Y** fiber holder that positions fiber tip at focal point of collector lens.
- **Accepts** Input collector lens, focusable in Z axis.
- **Fits** Zeiss lamphouse circular dovetail.

FIBEROPTIC

- **Material**: 1 mm diameter. single fiber fused silica, with optically polished ends.
- **Length**: 1.5 meter (or longer), jacketed, terminated with 3 mm by 57 mm S.S. sleeves.
- **Temperature range**: -65° C to +125° C.
- **Transmittance**: 95-98% from 280 nm to 1100 nm; 80% from 180nm to 280nm.
- **Power throughput**: 470 mW with HBO 100W/2 arc lamp.
- **Numerical Aperture**: 0.47 @ 1M •Maximum Attenuation: 8.9db/Km at 820 nm.
- **Curve Calibrator**: Delrin rod 9 mm by 115 mm long.
- **LOP**: light output photodiode.

OUTPUT MODULE

- **Housing**: Black anodized aluminum.
- **Weight**: 596 grams.
- **Length**: 99 mm. Diameter: 69 mm.
- **X Y** adjustable fiber holder, as above.
- **Accepts** Output lens, focusable in Z-axis.
- **Circular dovetail** fits Zeiss microscope port.