

Model 610048 MicroPIV Optical Assembly



POWERVIEW 4M camera with Model 610048 MicroPIV Optical Assembly

The TSI Model 610048 MicroPIV Optical Assembly is designed for PIV measurements in small flow regions. Typically, it is used when making velocity measurements in small channels or flow devices with dimensions of the order of 1 mm or smaller. It can be used with any of the TSI PIV cameras, including both the POWERVIEW™ and PIVCAM™ series. Since the optical assembly is mounted on the camera, the user has flexibility in positioning the imaging system with respect to the flow model. An additional traverse mechanism can be used to allow fine positioning of the system.

Key features

Long working distance microscope objective—offers freedom to orient or position the flow model and permits the laser light beam to illuminate the measurement region from the side. Side illumination reduces the direct reflection of the laser light and, hence, improves image quality.

Relay lens arrangement—orients the image captured by the camera. If necessary, the relay lens can be removed from the system.

Focusing body with traverse mechanism—single axis traverse mechanism positions the body for focusing the image.

Camera mount—serves as the mounting mechanism for the camera. It can be used with all of TSI's POWERVIEW and PIVCAM series cameras.

Optical filter and mount—allows only the fluoresced light (typical wavelength of 610 nm) from the fluorescent seed particles to be imaged by the camera. This arrangement blocks reflected laser light from getting into the camera.

Specifications

Working distance	20 mm typical (from lens to the flow model)
Magnification factor	20X
Focal length	20 mm (typical)

To Order

Model 610048	MicroPIV Optical Assembly, including a long working distance microscope objective, relay lens system, camera mount, focusing body with traverse mechanism, and optical filter.
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