

# POWERVIEW™ Plus 11MP Camera Model 630062

*...the next generation POWERVIEW Plus camera with the highest pixel resolution in the marketplace...from TSI!*



### Features

- Highest pixel resolution—11 million pixels
- Ideal for large flow fields with high resolution
- Enhanced image quality
- Protective mask
- Low noise and high quantum efficiency
- Designed for global imaging applications
- Use with the *HyperStreaming* system for hours of continuous data transfer and storage

TSI's POWERVIEW Plus 11MP camera offers 4008 × 2672 pixel resolution and 12-bit intensity dynamic range, short frame straddling times, and variable exposure time for PIV and PLIF applications.

### Next Generation Cameras

Based on our expertise in imaging techniques and global measurements, a camera with unmatched pixel resolution has been added to the TSI family of POWERVIEW Plus Cameras. The new, compact 11MP camera incorporates unique features for accurate global measurements of flow properties and scalar quantities using laser imaging.

### High Signal Quality

The 11MP camera offers an unusually low noise level due to a unique electronic design. The CCD and its digitization circuit are completely shielded to

keep electronic noise from camera circuitry or the external environment from affecting signal quality. The CCD array offers high quantum efficiency for PIV and PLIF applications with spectral response over a wide wavelength range.

### Protective Mask

An integrated protective mask on the CCD array, a trademark of TSI POWERVIEW Plus cameras, is included. The mask is important for preventing fatal damage to the output circuit of the CCD array due to potential laser light reflections. This improves reliability and extends camera life.

### Industrial Standard for Camera Output

The camera employs the industrial standard Camera Link® interface as its output protocol, ensuring fast, reliable data transfer to the host computer. The 64-bit interface transfers data at its full frame rate to the computer memory, consistently and reliably in single or stereo camera configurations. You see results on-line while the camera is capturing

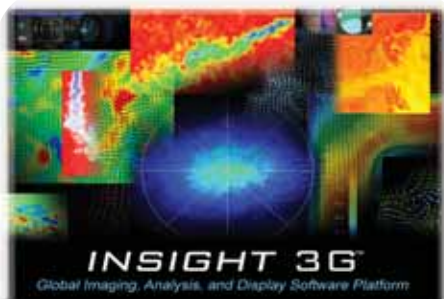
data, an enormous benefit compared to the slower Firewire® camera image transfer. The camera can also be used with TSI's *HyperStreaming* Image Transfer System to allow capture and storage of images from the camera (both in single and stereo mode) for a period up to hours, without any missing captures.

### Compact Design and Remote Operation

This compact camera weighs less than 1 kg and can be used in packaged PIV systems as well as applications where space and/or accessibility is limited. The camera is connected to the Camera Interface in the computer with a Camera Link cable. No additional controller box is required. For applications requiring a long distance between the camera and the computer, a long Camera Link cable or fiber optic cable are available options. The camera can be equipped with a remote control camera lens for focusing and aperture adjustments and the Scheimpflug adjustment in stereoscopic PIV also can be incorporated.

### INSIGHT 3G™ Global Imaging, Analysis and Display Software Platform

The *INSIGHT 3G* package features all of the tools needed for even the most advanced global imaging measurements, from our patented processing algorithms to the most elaborate data analysis features available. And now, equipped with the *HyperStreaming* Module, the power of the *INSIGHT 3G* Platform can be unleashed on enormous amounts of data, using features such as the POD Analysis Toolbox and distributed processing capability over a network of computers to quantify the flow properties of interest with the desired detail.



### Specifications

#### Model 630062 Camera

<b>Pixel Resolution</b>	4008 × 2672 pixels
<b>Pixel Size</b>	9.0 μm (H) × 9.0 μm (V)
<b>Imager Size</b>	36.07 mm (H) × 24.05 mm (V)
<b>Intensity Dynamic Range</b>	12-bit
<b>Frame Rate</b>	4.8 fps in Frame Straddling Mode
<b>Saturation Signal</b>	60,000 electrons
<b>Quantum Efficiency</b>	50%
<b>CCD Operating Temperature</b>	40°C
<b>Spectral Range</b>	340 nm to 900 nm
<b>Blooming Suppression</b>	>1000X
<b>Pixel Clock Rate</b>	30 MHz per channel
<b>Frame Straddling Time</b>	200 ns
<b>CCD Mask</b>	Integral protective mask
<b>Lens Mount</b>	F-mount
<b>Camera Output</b>	Dual output parallel LVDS
<b>Operation Modes</b>	Free Run, Triggered and Frame Straddling
<b>Camera Control</b>	RS-232 via frame grabber cable
<b>Camera Display</b>	LED displays for Power and Output
<b>Camera Head Dimensions</b>	45 × 68 × 66 mm
<b>Camera Head Weight</b>	0.8 kg
<b>Camera Interface</b>	64-bit CameraLink
<b>Frame Grabber Cable</b>	5m standard with RS-232 communication
<b>Power Cable</b>	5m standard with universal power supply
<b>Power</b>	12 VDC @ 6.0 W
<b>Camera Lens</b>	Nikon 60 mm Micro F-mount lens standard
<b>Capture and Storage Options</b>	Direct to the computer RAM, <i>HyperStreaming</i> Image Transfer System

Specifications subject to change without notice.

Camera Link is a trademark of the Automated Imaging Association.  
 Firewire is a trademark of Apple Computer, Inc.  
 TecPlot is a trademark of Amtec Engineering, Inc.  
 MATLAB is a trademark of the Mathworks, Inc.



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