

## VS4-1845HS

GEN III or Gen II Image Intensifier Assembly for High-Speed Cameras



### Features:

- ✓ Double intensifier for bright output needed for high frame rate cameras.
- ✓ Extended Blue Response from 350 to 900nm with over 50% QE at 500nm
- ✓ Optional UV Response: 200 to 700nm
- ✓ Gating from 50ns to 1ms and Gate Delay from 0 to 2mS or DC operation
- ✓ >200 kHz (fps) gating with special intensifier power supply.
- ✓ 57 to 64 linepairs/mm Resolution
- ✓ Negligible shading and geometric distortion
- ✓ Input Format: 1", standard C-Mount
- ✓ Output Format: F-Mount, convertible to C-Mount with an adapter
- ✓ Computer control of all functions
- ✓ Optional Gating from 3ns

### **General Description-**

The **VS4-1845HS** Image Intensifier is a double intensifier made expressly for High Speed cameras for low light and High Speed scientific imaging.

Response of the Extended Blue Gen III Photocathode extends from 350 nm to 900nm with superior QE performance. An option for UV response from 200nm to 700nm is also available.

The **VS4-1845HS** is optically coupled to the camera via an **F-Mount**.

The **VS4-1845HS** is pre-adjusted to work with an included computer control system operated from a GUI on the computer. It is all self-contained and requires no control unit. The GUI adjusts the Intensifier Gain, Intensifier Gating and Intensifier Gate Delay. The supplied software runs in all late versions of Windows™.

The **VS4-1845HS** was designed for use on high-speed cameras for scientific applications. There is no Automatic Gain or Gate control. The **VS4-1845HS** operates under the manual control of the user at all times. The output is strictly linear. The design of the **VS4-1845HS** was done so as to present to a high-speed camera, with short exposure times, the bright output needed to expose the camera. The sensitivity of the **VS4-1845HS** and high-speed camera is a function of the sensitivity of the camera used. Higher sensitivity cameras will yield better low light level results.

## Specifications:

- Intensifier Type (Visible): **Generation III MCP Image Intensifier**
- Intensifier Type (UV): **Generation II Image Intensifier with S-20 Photocathode**
- Response:
  - Extended Blue: **350 to 900nm with over 50% QE @ 450nm**
  - UV: **200 to 700nm with 25 to 30% QE from 200 to 400nm**
- Input Window: **Glass** (visible)  
**Quartz** (UV)
- Phosphor: (Output)
  - **P-24**
  - **P-46**
- Active Area: **18 mm Diameter**
- Optional: **25mm Diameter**
- Output Window: **Fiber Optic**
- Gating Range: **50ns to 1ms (in 20ns increments)**
- Gating Delay Range: **0ns to 2ms (in 20ns increments)**
- Resolution: **57 to 64 linepairs/mm (based on photocathode selection)**
- Input Lens Mount: **C-Mount**
- Output Lens Mount:
  - **F-Mount (convertible to C-Mount via an adapter).**
- Input Format: **1"**
- Output Format: **18mm for 1" camera**
- Geometric Distortion: **<1%**
- Control: **Gain, Gate and Gate Delay set via Computer (RS-232) control (Windows™ Operating System)**

## Mechanical:

- Dimensions: **210 x 75 x 130 mm**
- Weight **5.2 lbs.**

## Electrical:

- Input Voltage: **110V/220V**
- Input Power: **<10 Watt**

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