

# Diamond Power® GlassCam™ High-Resolution Camera Featuring TempVu® Technology

The Diamond Power® GlassCam™ high-resolution camera, provided by Babcock & Wilcox (B&W), features a two-color temperature measurement for highly accurate readings. The GlassCam camera provides high-resolution images, has no moving parts, and has a variety of mounting configurations that can be incorporated to meet installation requirements.

The GlassCam high-resolution camera can view the batch product in the melt tank just before it is ready to exit, and provides temperature feedback to the operators so that burner adjustments can be made to meet the optimum material temperature. The camera is mounted in a furnace port looking into the melting zone area and provides an important insight for improving product quality.

The Diamond Power exclusive TempVu® software system used with the GlassCam camera has up to 15 user-definable temperature regions, and single- or multi-point region averaging. This allows the user to select multiple regions of interest, and of varying sizes and shapes. The system also features automatic temperature data storage at user-defined intervals to provide historical data for trending or issue analysis. A complete color palette is available for colorizing the monochrome video images, providing the operator with the ability to choose between seeing the monochrome image, or a pseudo-color image which best shows the natural colors in the glass furnace.

## Benefits

- Accurate temperature readings eliminate the need to know the material emissivity
- Improves product quality
- Less maintenance than conventional cameras
- Longer mean time between failure (MTBF)
- Produces high-resolution digital images
- Reduces the amount of cooling air required
- Wide temperature range
- Provides a variety of mounting configurations
- Unique dual-walled construction isolates and seals the camera against contaminants



*GlassCam™ high-resolution camera with TempVu® software system screenshot.*

## Features

- Two-color temperature measurement for higher accuracy
- No moving parts
- High resolution 1024 x 768 SVGA images
- High resolution/temperature optical probe
- Temperature range = 1400 to 3000F (760 to 1649C)
- Diamond Power TempVu technology provides:
  - Up to 15 user-definable temperature regions
  - Single- or multi-point region averaging
  - Bitmap image storage
  - Automatic temperature data storage at user-defined intervals
  - Color palette for colorizing the monochrome video image
  - Individual contrast and brightness control
  - Auto-archive of bitmap images
  - Sequential switching of cameras
  - Graphical trending of temperature regions
  - 4 to 20 mA output
- Proprietary HTH-8 high-temperature camera housing
  - Dual-wall construction housing
  - Can use water- or air-cooling

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## GlassCam™ High-Resolution Camera Specifications

Accuracy	±1%
Temperature Measurement Range	1400 to 3000F (760 to 1649C)
Calibration	Factory set
Cooling Requirements	Optical Probe: 3 to 5 psi (20.7 to 34.5 kPa) @ 17 to 22 scfm (0.008 to 0.10 Nm <sup>3</sup> /s) Air-Cooled Housing: 60 to 80 psi (414 to 552 kPa) @ 15 to 20 scfm (0.007 to 0.009 Nm <sup>3</sup> /s)
Data Outputs	Four (4) individual 4 to 20 mA outputs per PC (Optional)
Measurement Field-of-View	60° height x 45° vertical (Entire image area)
Operating Requirements	Camera Assembly: 14 to 200F (-10 to 93.3C) with cooling Optical Probe: up to 3000F (1649C) with cooling Ethernet interface box: 14 to 150F (-10 to 65.6C) with cooling (Located within 12 ft from camera)
Power Requirements	Camera site equipment: 100 to 204 VAC, 50/60 Hz @ 1.1 amps maximum
Temperature Measurement Resolution	10F (5.6C) over full image
Temperature Update	≥ 5 seconds
Weight	22 lb (10 kg) for 24 in. optical probe
Data Communication	Cat5E or 6 Ethernet 328 ft (100 m) max. standard. Optional dual LC fiber optic multimode, 50/125 micron, 1640 ft (500 m) max.

### Availability

Contact your local Babcock & Wilcox representative, or call us at (800) 700-2791.

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