

GlassCam™

high-resolution camera featuring TempVu™ technology

Diamond Power's GlassCam™ high-resolution cameras feature a two-color temperature measurement for a higher accuracy reading. The GlassCam high-resolution camera provides hi-resolution images, has no moving parts and has a variety of mounting configurations that can be incorporated to meet individual installation requirements.

The GlassCam high-resolution camera can view the batch product in the burner zone just before it's ready to exit, and provides temperature feedback to the operators so that burner adjustments can be made. This enables meeting the optimum material temperature. The camera is mounted on the furnace port looking into the combustion zone area and provides an important insight for improving product quality.

Diamond Power's exclusive TempVu™ software system used with the GlassCam system, 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 the user with historical data for trending or issue analysis. There is a complete color palette for colorizing the monochrome video images, which gives the operator the ability to choose between seeing the monochrome image, or a pseudo-color image that will best show the natural colors in the glass furnace.



GlassCam™ high-resolution camera with TempVu™ software system screenshot

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

Features

- Two-color temperature measurement for higher accuracy
- No moving parts
- High resolution 1024x768

SVGA images

- High resolution/temperature optical probe
- Temperature range= 1,400°F to 3,000°F (760°C to 1,649°C)
- Diamond Power's exclusive 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 interval
 - 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
 - 4-20 mA output
- Proprietary HTH-8 High-Temperature Camera Housing
 - Dual-wall construction housing
 - Can use water- or air-cooling

Specifications

Accuracy	±1%
Temperature Measurement Range	1,400°F (760°C) to 3,000°F (1,649°C)
Calibration	Factory Set
Cooling Requirements	Optical Probe: 3 psi (20.6 kpa) @ 17 scfm (.008 M ³ /s) Air-Cooled Housing: 60 (413 kpa) to 80 psi(551 kpa) @ 15 (.007 M ³ /s) to 20 scfm (.009 M ³ /s)
Data Output	Four (4) individual 4-20 mA outputs per PC (Optional)
Measurement field-of-view	60°H x 45°V (Entire image area)
Operating Requirements	Camera Assembly: +14°F (-10°C) to 200°F (93.3°C) with cooling
	Optical Probe: up to 3,000°F (1,649°C) with cooling
	Fiber Optic junction box: +14°F (-10°C) to +115°F (46.1°C) (Located within 12 ft. from camera)
Power Requirements	Camera site equipment: 100-204 VAC, 50/60 Hz @ 1.1 Amps max.
Temperature measurement resolution	10°F (5.6°C) over full image
Temperature update	≥5 seconds
Weight	22 lbs. (10 kg) for 24" optical probe
Data communication	Dual LC fiber optic multimode cable, 62.5/125 micron, 1,640 ft. (500 m) max. (Cable supplied by customer)

Availability

Contact a Diamond Power International, Inc. representative at **1-800-700-2791** or visit **www.diamondpower.com**.

Diamond Power Controls & Diagnostics is a division of Diamond Power International, Inc. and is located in Lancaster, OH and Lynchburg, VA. Diamond Power International, Inc. (DPII) is a globally acknowledged market leader in all aspects of boiler cleaning and ash handling. For more than 100 years, DPII has consistently provided innovative technologies for power generation, pulp & paper and industrial boiler designs, proven to solve the most difficult plant challenges while delivering promised benefits. Diamond Power is headquartered in Lancaster, Ohio, U.S. with more than 80 field sales, service support, distribution and manufacturing locations worldwide.

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