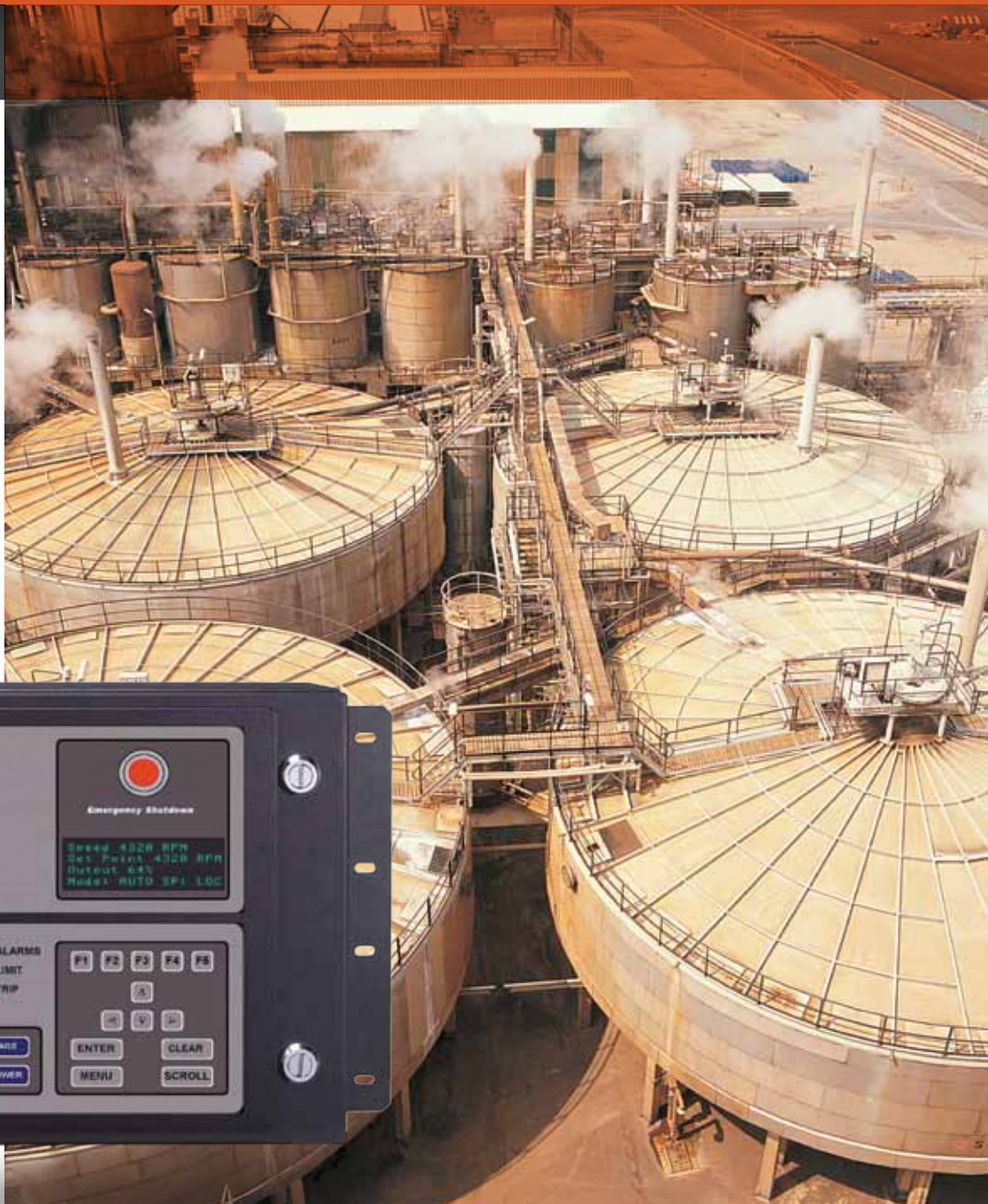


EXPERTISE BEYOND CONTROLS

VANTAGE®

GP | GD



CCC's Vantage governors deliver extensive benefits, capabilities, and features that can't be found on any other mechanical or electronic governor.



Control Features

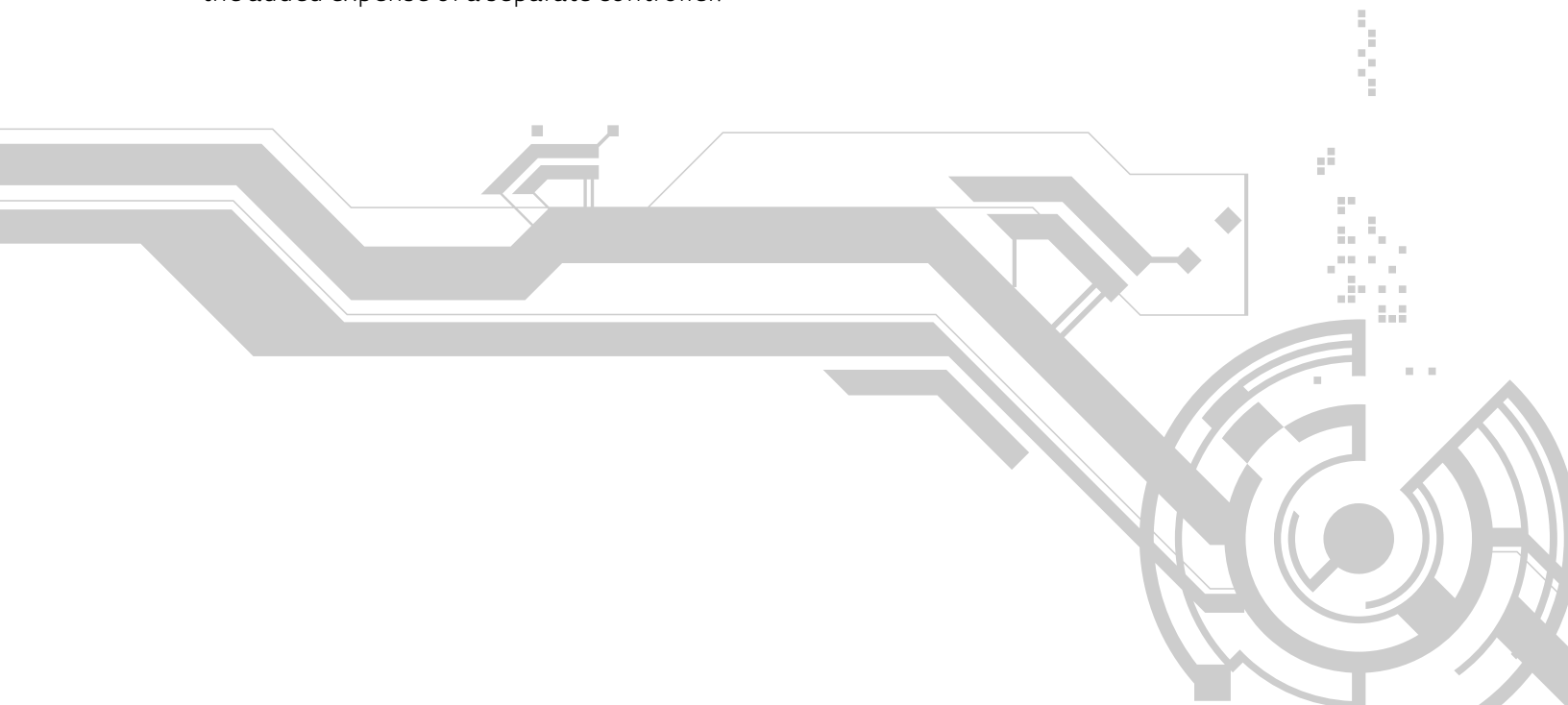
Ideal for a variety of applications, the Vantage GP and Vantage GD offer a comprehensive collection of turbine and generator control algorithms to provide precise control:

- ▶ Outstanding speed control with integrated manual-control capability, protective override for over-speed and critical speed, and fully automated start-up and shutdown sequencing.
- ▶ Stable and precise load control for synchronous electrical generators. Permits operation in power droop, characterized valve droop, and isochronous modes. Discrete inputs are provided for manual synchronization or interfacing with external auto-synchronization units. (GD only)
- ▶ Built-in cascade control loop that allows you to regulate other process variables, such as turbine inlet or exhaust pressure, without the added expense of a separate controller.

Testing and Maintenance

Vantage products provide several unique features to simplify test and maintenance procedures. These features help lower your system life-cycle costs:

- ▶ Extensive self-diagnostics and field I/O diagnostics simplify troubleshooting.
- ▶ A history log aids in the analysis of recent shutdowns.
- ▶ Manual operation allows direct valve positioning for test and maintenance of final control elements.
- ▶ The over-speed test feature (password protected) facilitates testing of the primary over-speed device by allowing an increase of the turbine speed set point up to the configured maximum control speed.



Operator Interface

All configuration, operation, and maintenance activities for the Vantage GP and Vantage GD governor can be performed using the local operator interface:

- ▶ Two separate keypad areas are provided on the front panel. One is exclusively for configuration and maintenance, while the other is for machine operation. This provides the simplest and most intuitive interface possible for your plant personnel.
- ▶ An alphanumeric, vacuum-florescent display provides complete access to operating and configuration parameters for use by plant operators and control engineers.
- ▶ Front-panel LEDs indicate control mode, controller integrity, and process status, providing a quick, convenient reference for monitoring the state of the process and the control system. (GD only)
- ▶ Installed cost is minimized because a separate computer or operator panel is not required. If you prefer your plant personnel to have a consistent operator interface, all operation activities can be performed from your plant DCS using the industry standard Modbus RTU interface.
- ▶ Multilevel password protection is provided on configuration and test parameters for secure operation.



For more information

about our Vantage governors and other state-of-the-art products from the world leader in turbomachinery control, please contact a CCC office near you. We are uniquely qualified to solve turbomachinery control problems, and we will help you achieve maximum turbomachinery performance regardless of your equipment or process.



Vantage GP

A Purpose-Built Digital Governor Designed Specifically for General Purpose Turbine Applications

Specifications

- ▶ Input power: 85 to 265 Vac (optional 18-32 Vdc)
- ▶ Enclosure rating: IP-54
- ▶ Operating temperature range: -40 to +65 C operating range
- ▶ Humidity range: 5 to 95 percent (non-condensing)
- ▶ Hazardous area certification:
 - USA: Class 1, Division 2, Groups A-D, T3
 - Canadian: Class 1, Zone 2, Group IIC, T3
 - European (ATEX): Group II, Cat. 3, G, EEx, nACL, IIC, and T3

Inputs and Outputs

- ▶ 2 magnetic pickup inputs
- ▶ 12 discrete inputs
- ▶ 6 discrete outputs
- ▶ 3 analog inputs
- ▶ 3 analog outputs



Vantage GD

Specifically Designed Governor For Condensing and Back-Pressure Steam Turbines Driving Synchronous Generators

Specifications

- ▶ Input Power: 85 to 265 VAC (optional 18-32 VDC)
- ▶ Enclosure Rating: IP-54
- ▶ Operating Temperature Range: -40 to +65 °C
- ▶ Humidity Range: 5 to 95% (Non-condensing)
- ▶ EMC Compliance: CE Certified
- ▶ Hazardous Area Certification:
 - USA: Class 1, Division 2, Groups A-D, T3
 - Canadian: Class 1, Zone 2, Group IIC, T3
 - European (ATEX): Group II, Cat. 3, G, EEx, nACL, IIC, and T3

Inputs and Outputs

- ▶ 2 magnetic pickup inputs
- ▶ 15 discrete inputs
- ▶ 5 analog inputs
- ▶ 6 discrete outputs
- ▶ 3 analog outputs



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Contact your local sales representative. Please visit our website:

www.cccglobal.com/offices

