

# GUARDIAN®

## INTEGRATED ENGINE + COMPRESSOR CONTROL

# GC SERIES



- Ideal for small to large HP applications or panel retrofits
- Incorporates industry standard non-proprietary hardware and software
- User-friendly operator screens - password protected for maintenance and configuration
- Integrated controls viewable on HMI for:
  - Waukesha ESM
  - AFR
  - Emissions
  - Caterpillar ADEM
  - Detonation
  - Ignition
- CSA Approved Class 1 Division 2 Hazardous Areas

### THE GUARDIAN® SOLUTION

The **GUARDIAN®** Series of PLC - based solutions are designed for control of electric or engine driven screw or reciprocating compressors.

Based on sustainable Allen-Bradley technology, customers can choose from a suite of **GUARDIAN®** Solutions, available with a range of hardware platforms, IO capacity, size of HMI, and level of complexity to best meet the needs of the particular application.

The **GUARDIAN®** Solution incorporates integrated control schemes for engine, compressor, and auxiliary equipment. Users benefit through process optimization, reduced downtime, more production, reduced emissions and lower fuel usage.

Hundreds of successfully installed solutions means that we have the experience to match the right **GUARDIAN®** Solution to your application, providing years of trouble free operation, all backed with support available 24/7/365.

### FEATURES

- Allen-Bradley Control/CompactLogix PLC
- 4, 7, or 10" Colour PanelView Plus HMI
- All inputs configurable for:
  - Class A/B/C Shutdowns
  - Alarm
  - Cooldown/Hard Stop
  - Emergency Shut Down (ESD)
- 6 Selectable Class B Timers
- 19 Built-in PID Loops configured for multiple processes, including standard features:
  - Online Tuning
  - Online Setpoint Adjustment
  - Auto-Manual Selection
  - Low/High Select Logic
- One-touch start logic
- Automatic or manual loading sequences
- First out alarming
- Transmitter failure detection and alarming
- Real time and historical alarm summaries
- Online configuration of alarm setpoints, ranges, timers
- Maintenance mode for online bypass of switch, transmitter and thermocouple inputs
- Maintenance mode for testing outputs
- Standardized SCADA interface

### SPECIFICATIONS

**Panel Power:** 24 VDC, 5 A nominal

#### Digital Inputs – up to 64

- 24 VDC, NO or NC
- Non-incendive

#### Digital Outputs – up to 64

- Dry or wetted relay contacts
- Solid state outputs

#### Analog Inputs – Up to 80

- Thermocouple
- 4-20 mA

#### Analog Outputs – Up to 32

- 4-20 mA

#### Operating Temperature

- PLC 0 to 60 °C, 32 to 140 °F
- HMI 0 to 55 °C, 32 to 131 °F

#### Enclosure

- Typical 900 W x 1500 H x 300 D mm (36" x 60" x 12")
- Front access

#### Stands and instrumentation

- Options for panel mounting of transmitters, solenoids, and I/P's
- Optional stand available

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