

- **Integrates Burner and Combustion Management into a single product.**
- **Controls multiple fuel streams and air/fuel ratio**
- **Controls burner ignition including start sequence, purge, ignition, and main flame monitoring (with scanners and ignition transformer not included)**
- **Monitors fuel train limits and external customer limits with first out annunciation.**
- **Monitors two flame switch scanners, for pilot and main flame proving.**
- **Configurable for variable Btu fuels**
- **Two configurable on-board high temperature limits.**
- **Monochrome graphic touch display**
- **Designed for stand-alone or PLC operation with Modbus 485 compatible communications**



## OVERVIEW

The 8379-GLE, Low Emission Burner Controller is designed specifically for use in low emissions and single burner control applications. The 8379 Controller will perform mass flow control of air and multiple gas flows to minimize emissions.

The unit integrates flame and limits monitoring with fuel to air ratio control. The 8379-GLE monitors shutdown limits, purge limits, flame sensor inputs and high temperature limit thermocouples. The unit also supervises purge timing, ignition timing, pilot valves and main fuel valves. The product provides inputs for stack O<sub>2</sub> which can be used to trim the air/fuel ratio, and combustion air O<sub>2</sub> to monitor, or to modulate FGR. (Sensors not included)

## SPECIFICATIONS

### BURNER MANAGEMENT

- Monitors series fuel train limits with first out annunciation of up to 12 limits
- Configurable for two fuel operation with external fuel enable
- Controls light off sequence, purge timing, ignition, and flame failure response

#### 120 V ac Inputs

- 12 Shutdown Limits, 6 Purge Limits, 3 Pre-Ignition Interlocks, 2 Flame Switch Inputs (Pilot and Main)
- Pilot Hold, Force Lowfire, Force Purge, External Fuel Select, Force Modulate, Pilot Relight
- Burner Start, 3 Lowfire Switches, Alarm Silence, Alarm Reset, Burner Recycle

#### 120 V ac Outputs

- Main Fuel 1, Main Fuel 2, Pilot, Ignition, Blower Start, Flame On, Center Fuel

#### Isolated Relay Outputs

- Highfire, Lowfire, Modulate, Alarm

#### Limit Thermocouple Inputs

- 2 High Temperature Limit Inputs, configurable

### COMBUSTION MANAGEMENT

- 24 Volt, 10 amp supply with at least 1 amp available for field devices
- Combustion Process Control Loops: 8 dedicated analog inputs and 3 thermocouple inputs, configurable for up to 3 fuel flows
  - Combustion air flow (4-20 mA)
  - Stack O<sub>2</sub> (4-20 mA)
  - Combustion air O<sub>2</sub> (4-20 mA)
  - 3 fuel flow inputs, 3 (4-20 mA)
  - 2 demand inputs, selectable TC for temperature loop or 4-20 mA external demand inputs
  - Temperature (TC input), for air temperature compensation
  - Temperature (TC input), for measurement use only

### HMI DISPLAY

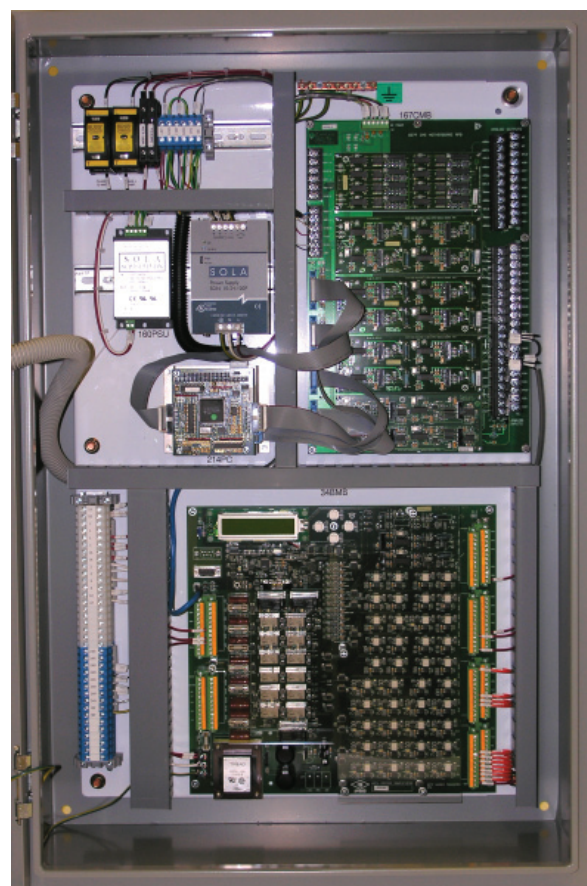
- NEMA 4, 5.7" monochrome touch display
- 2-line LCD burner management diagnostic display internal

### COMMUNICATIONS

- Modbus 485 communications (slave mode).
- Modbus PC based configuration and monitoring software is included with the unit.

### POWER, ENVIRONMENTAL RATING

- 120 V ac, 60 Hz, 10 amp
- NEMA 4 enclosure, 120 F ambient, 140 F internal maximum
- 24" W x 36" H x 10" D enclosure



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