

# **Gas Detection Boiler Specification**

### **Gas Detection Equipment**

- A. Carbon Monoxide Detectors: Single or multichannel, dual-level detectors using electrochemical sensors with a 3-year minimum life; suitable over a temperature range of 0 to 125 deg F; with 2 alarm levels at 50 and 100 ppm
  - 1. Manufacturer:
    - a. MACURCO (Basis of Design)
  - 2. Ambient Humidity: 10-90% non-condensing
  - Display: LED
  - 4. Warranty: 2 Year Limited
  - 5. Internal Relays
    - a. 5A Fan Relay
    - b. 0.5A Alarm Relay
  - 6. User Adjustable Settings
  - 7. Range: 0-200 ppm
  - 8. Low Level Alarm: Refer to controls drawings
  - 9. High Level Alarm: Refer to controls drawings
- B. Gas Boiler Controller panel shall comply with Texas Boiler Code Chapter 65 section 65.206 with a Latching Relay and a manual boiler reset after the detection of carbon monoxide in the facility.
  - 1. Manufacturer:
    - a. MACURCO (Basis of Design)
  - 2. 24 VDC driver for horn/strobe
  - 3. NEMA-4X Enclosure
  - 4. Audible Local Buzzer
  - 5. 24V or 120V power options
  - 6. Ambient Humidity: 10-90% non-condensing
  - 7. Buzzer 90 dBA at 1 ft
  - 8. Status Indicators
    - a. Green Light Powered up
    - b. Red Light Alarm Condition
  - 9. Warranty: 2 Year Limited
- C. Provide all horns and strobes as indicated on the drawings. Controls contractor to provide all relays and interconnect wiring for horn/strobes.
- D. Boiler Shutdown interlock shall be completed by controls contractor



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## Gas Boiler Controller

### Overview

The Gas Boiler Controller used in conjunction with Macurco Gas detectors is used to shut down boilers in the presence of gas. Using a single detector or up to four gas detectors the controller can control up to 8 dry contact outputs. These outputs are designed to shut down the boiler system upon the detection of carbon monoxide and/or combustible gases such as natural gas or propane. If the detectors are programmed in latching mode then utilizing the Gas Boiler Controller you can reset the power to disengage the latched relay. The Gas Boiler Controller has a green power light, a red alarm light, a boiler reset button, and an audible buzzer.

### **Specifications**

Size: 9.8" x 8" x 4.5"

Weight:

Enclosure: Opaque Polycarbonate, NEMA 4X/6P (IP66/68)

Operating Temperature: 32°F to 125°F (0°C to 52°C) 0% to 95% RH non-condensing Operating Humidity: Status Light Indicators: Green Power, Red Alarm

Inputs Power Input: 24VAC/VDC, 60 Hz, single phase

> Sensor Input: Qty 4 Detectors, 24VDC, 3W ea., (0.125mA ea.)

Outputs

Relay Rating (8): SPDT, 120/240 VAC, 10 A Max (resistive)

Output- 4 x Expansion Relay Boards in parallel, up to eight (8)

NO/NC dry contacts

Horn/Strobe (1): 24VDC, 250mA

Audible indicator: Buzzer, 90 dBA at 1ft

**User Interface** 

**Boiler Reset Button:** Reset push button to drop power and reengage power

**Status Lights:** Green Power Light, Red Alarm Light

Buzzer, 90 dBA at 1ft **Buzzer:** 

Quality

Monitor manufacturer must be certified to ISO 9001 or higher Quality:







