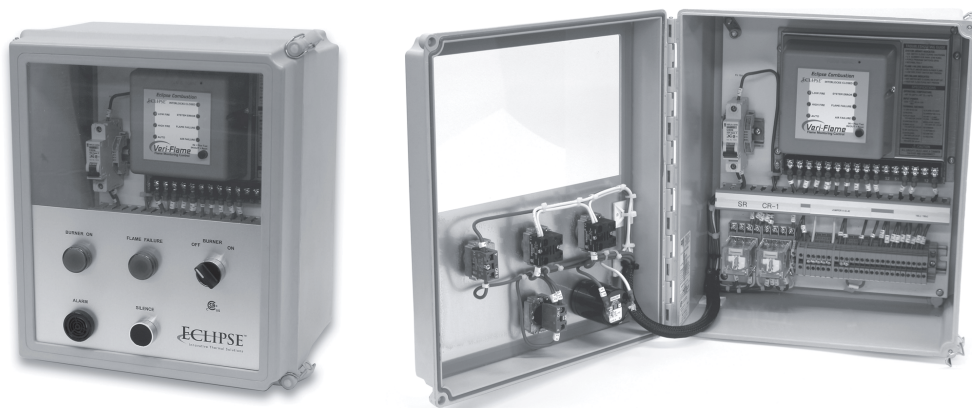


Control Panels

CP Series

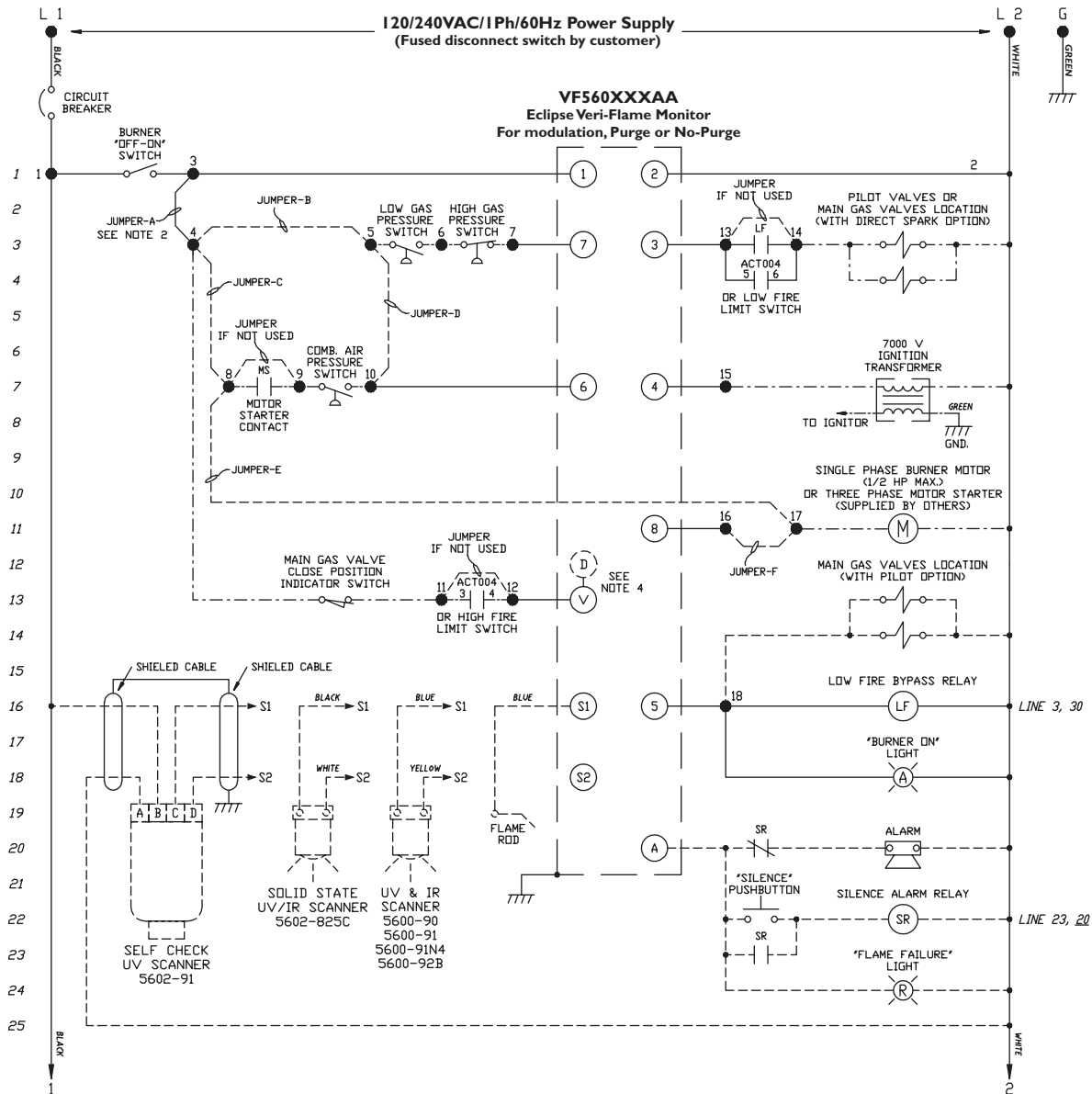
Model CPL

Version 1

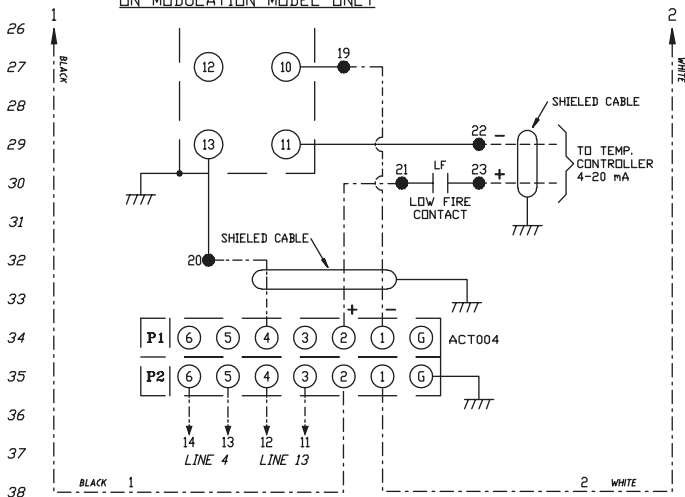


Parameter	Specifications
Power Supply	120 or 240VAC, 1PH, 50/60Hz
Ambient Temperature	-40° F to +140° F (-40°C to 60°C)
Enclosure Rating	NEMA 4
Dimensions	14"H x 12"W x 8"D (356x305x203mm)
Weight	17 lbs. (7.7 kg)
Flame Monitor	No purge Purge Modulation
Flame Sensor	Flame rod UV Scanner Self-Check UV Scanner Solid-State UV-IR Scanner IR Scanner
Ignition Transformer	Optional
Start Mode	Automatic
Annunciation	Indicator lights and optional alarm
Combustion Blower Rating	1/2 hp maximum for direct connection
Temperature Control and Limit	Not included
Approvals	CSA for Canada and USA
Flame Monitor Approvals	FM, CSA, UL

Wiring Diagram



TERMINALS 10 THRU 13
ON MODULATION MODEL ONLY



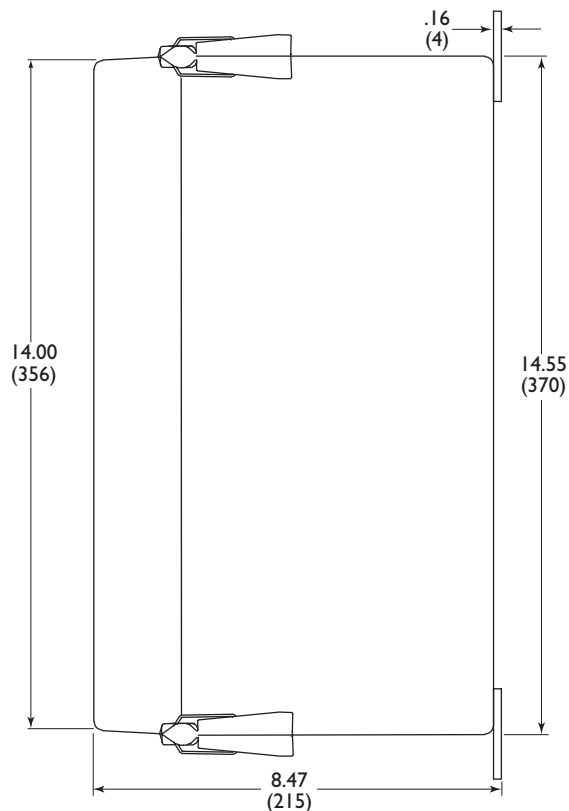
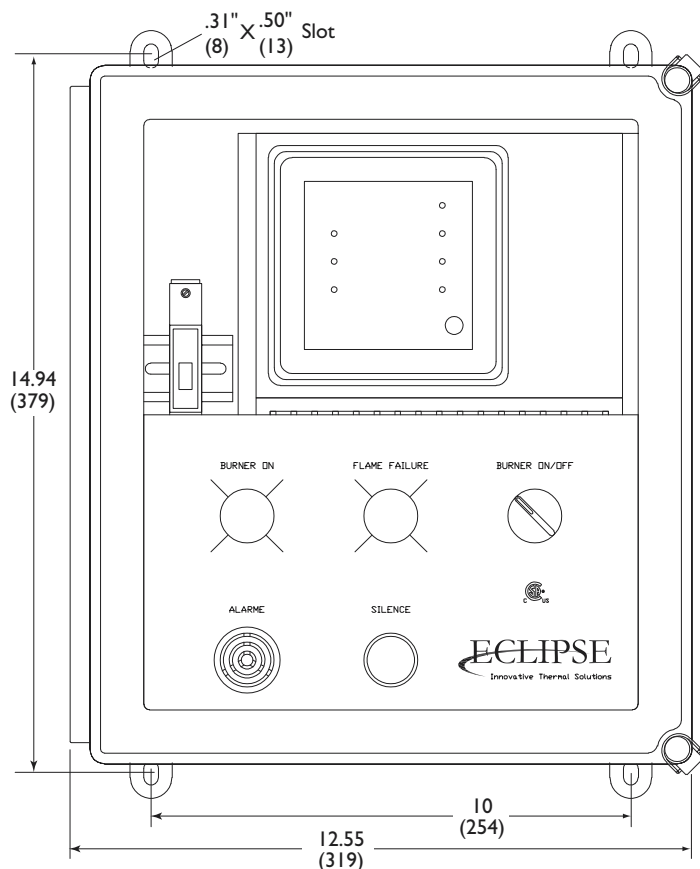
Key: 7 — Terminal number on Eclipse Terminal block
 --- Dashed line = jumper or control option
 -.- Dash-Dot line = external wiring
 Interconnection Diagram on page 4.



NOTES:

1. Incoming power lines marked (L1 & L2) must be connected to the 120/240VAC potential. The neutral (L2) wire must be bonded to ground at its source.
2. External limit control, timer, clock or other remote control device as required, to be supplied by customer (connect between terminals "3" & "4" and remove jumper-A).
3. Installation, operation and maintenance shall conform with NFPA standards, national and local codes and authorities having jurisdiction.
4. Cut the jumper wire on Veri-Flame wiring base to activate the proof of closure function and high fire switch (modulation only) (red wire on modulation base or grey wire on purge and no-purge) connect to terminal "D" on modulation model, use terminal "V" on purge and no-purge models.
5. Connect all ground and shield wires and wire terminal "G" to ground stud on sub-panel.
6. For no-purge model, remove jumper-B and jumper-F and add jumper-C, jumper-D and jumper-E.
7. For purge and modulation models remove jumper-D and jumper-E and add jumper-B, jumper-C and jumper-F.
8. For purge and modulation models with remote motor starter (not driven by Veri-Flame terminal "8") remove jumper-C and jumper-F and add jumper-E.

Dimensions and Specifications Inches (mm)



Sequence of Operations

1. Reference Instruction Manual 818 for details on the Veri-Flame control.
2. Turn the BURNER switch on. For modulation units, the LOW FIRE light on the Veri-Flame comes on.
3. When all externally provided interlocks and limits are made, the INTERLOCKS CLOSED light on the Veri-Flame comes on.
4. The Veri-Flame checks that there is no flame signal and no air switch voltage to panel terminal 10.
5. The Veri-Flame energizes the combustion air motor (or motor starter), and then checks for combustion air pressure switch. If it is not made within 10 seconds, the unit will go to alarm and lockout.
6. For modulation units, the LOW FIRE on the Veri-Flame turns off and the HIGH FIRE light turns on and panel terminal 19 makes contact with terminal 20. This sequence is used to drive an actuator to the high flow position for rapid purging. The Veri-Flame checks that the high purge position switch is made. For purge units, the selected purge timing starts.
7. After the set purge time on modulation units, the LOW FIRE light comes on, the HIGH FIRE light goes off, and the contact between terminals 19 and 20 is opened. This sequence is used to drive the actuator to the low fire or starting position. The modulation Veri-Flame checks that the low fire position switch is made.
8. At the end of the purge time, the spark and the starting gas valve are energized.
9. The flame on light at the Veri-Flame FLAME SIGNAL test jack comes on when the sensor detects the flame. If no flame signal is present at the end of the trial for ignition, the unit goes to alarm and lockout.
10. At the end of the trial-for-ignition time, the spark is shut off and the burner flame is held at the start position to check for flame stability.
11. If the flame signal is still good, the BURNER ON control panel light turns on. For pilot burner systems, the main gas valve comes on. The LF relay is energized to make contact between panel terminals 21 and 23. For purge and no-purge units, this sequence allows the automatic control of the actuator for burner firing rate. On modulation units, the LOW FIRE light turns off and the AUTO light comes on, allowing the actuator to respond to a control signal.
12. On units with the alarm beeper, the alarm will come on for any lockout condition such as loss of flame, loss of air switch, and loss of gas valve closed switch during standby mode. There is no alarm for loss of operating limits and interlocks.
13. To shutdown, turn the burner switch to off or open any interlock and limit that feeds terminal 7.

Interconnection Diagram

30 Unit Terminal Block
See Jumper notes 6, 7, and 8 on page 2.

