

# Ignition Pilot Modules

## S87 Direct Spark Ignition Modules



**Ignition Modules provide electronic control of direct spark ignition systems used on gas fire furnaces, boilers, and other heating appliances.**

- Control ignition sequence and gas control operation.
- Generate high voltage potential for main burner ignition.
- Lockout after one trial for ignition if main burner fails to ignite.
- Reset from thermostat after lockout.
- Use modules (except S87C) with any combination gas control designed for direct spark applications and rated 2.0A or less.

**Ignition System Type:** Direct Spark Ignition

**Typical Gas Control:** VR8205, VR8305

**Type of Gas:** Natural or LP

**Ignition Source:** Internal high voltage spark generator

**Ignition Trials To Lockout:** 1

**Approximate, Dimensions:** 5 1/4 in. high x 4 1/16 in. wide x 1 15/16 in. long (133 mm high x 103 mm wide x 49 mm deep)

**Electrical Ratings:** 24 Vac

**Frequency:** 60 Hz

**Ambient Temperature Range:** -40°F to +175°F (-40°C to +79°C)

**Approvals, CSA:** File 112491\_0\_000

**Flame Failure Response Time (sec):** 0.8 sec. @ 5.0 microamp

**Flame Failure Re-ignition Time (sec):** 0.8 sec. maximum

| Material Number | Flame Sense | Ignition Sequence   | Ignition Trial Time (sec) | Lockout Timing | Typical Ignition Hardware | Maximum Valve Load @ 24 Vac (Amps) | Typical Ignition Hardware | PrePurge        | Includes       |
|-----------------|-------------|---|---------------------------|----------------|---------------------------|------------------------------------|---------------------------|-----------------|----------------|
| S87B1008/U      | Single Rod  | Single trial for main burner ignition (then shut down and lockout)    | 6 sec.                    | 6 sec.         | Q347A                     | 2A                                 | Q347A                     | None            | Alarm terminal |
| S87B1016/U      | Single Rod  | Single trial for main burner ignition (then shut down and lockout)    | 11 sec.                   | 11 sec.        | Q347A                     | 2A                                 | Q347A                     | None            | Alarm terminal |
| S87B1024/U      | Single Rod  | Single trial for main burner ignition (then shut down and lockout)    | 21 sec.                   | 21 sec.        | Q347A                     | 2A                                 | Q347A                     | None            | Alarm terminal |
| S87B1065/U      | Single Rod  | Single trial for main burner ignition (then shut down and lockout)    | 4 sec.                    | 4 sec.         | Q347A                     | 2A                                 | Q347A                     | None            | Alarm terminal |
| S87C1006/U      | Two Rod     | Single trial for main burner ignition (then shut down and lockout)    | 6 sec.                    | 6 sec.         | Q347A, Q354, Q366         |                                    | Q347A, Q354, Q366         | None            |                |
| S87C1030/U      | Two Rod     | Single trial for main burner ignition (then shut down and lockout)    | 21 sec.                   | 21 sec.        | Q347A, Q354, Q366         |                                    | Q347A, Q354, Q366         | None            |                |
| S87D1004/U      | Two Rod     | Single trial for main burner ignition (then shut down and lockout)    | 6 sec.                    | 6 sec.         | Q347A, Q354, Q366         | 2A                                 | Q347A, Q354, Q366         | None            | Alarm terminal |
| S87D1012/U      | Two Rod     | Single trial for main burner ignition (then shut down and lockout)    | 11 sec.                   | 11 sec.        | Q347A, Q354, Q366         | 2A                                 | Q347A, Q354, Q366         | None            | Alarm terminal |
| S87D1020/U      | Two Rod     | Single trial for main burner ignition (then shut down and lockout)    | 4 sec.                    | 4 sec.         | Q347A, Q354, Q366         | 2A                                 | Q347A, Q354, Q366         | None            | Alarm terminal |
| S87D1038/U      | Two Rod     | Single trial for main burner ignition (then shut down and lockout)    | 21 sec.                   | 21 sec.        | Q347A, Q354, Q366         | 2A                                 | Q347A, Q354, Q366         | None            | Alarm terminal |
| S87J1026/U      | Single Rod  | Single trial for main burner ignition (then shut down and lockout)    | 11 sec.                   | 11 sec.        | Q347A                     | 2A                                 | Q347A                     | 30 sec. minimum |                |
| S87J1034/U      | Single Rod  | Single trial for main burner ignition (then shut down and lockout)    | 21 sec.                   | 21 sec.        | Q347A                     | 2A                                 | Q347A                     | 30 sec. minimum |                |
| S87K1008/U      | Two Rod     | Multiple trials for main burner ignition (then shut down and lockout) | 4 sec.                    | 4 sec.         | Q347A, Q354, Q366         | 2A                                 | Q347A, Q354, Q366         | 30 sec. minimum |                |