

Flame Amplifiers

R7247; R7248; R7249; R7476 Flame Amplifiers



Solid state plug-in units respond to flame detector signal and indicate presence of flame.

- Use with BC7000; R4140; R4075C,D,E; R4138C,D Flame Safeguard controls and appropriate flame detector and FSP5075A1, FSP5075A3 Flame Amplifier Modules.

Approvals:

Canadian Standards Association: Certified: File No. LR1620, Guide No. 140-A-2

Control Safety Devices: Acceptable (CSD-1)

Factory Mutual: Approved: Report No. 24181.01

Underwriters Laboratories Inc. Listed: File No. MP268, Guide No. MCCZ2

| Product Number | Flame Failure Response Time (sec) | Self Checking | Use With Flame Sensor | Use With Primary Safety Control | Comments |
|----------------|-----------------------------------|--------------------|---|---|---------------|
| R7247A1005 | 2 to 4 sec | None (standard) | Gas, oil, coal: Ultraviolet Flame Sensor C7012A,C | R4140;BC7000;R4075C,D,E; R4138C,D;FSP5075 | Color: Green |
| R7247B1003 | 2 to 4 sec | Ampli-Check | Gas: Rectifying Flame Rods C7004, C7005, C7007, C7008, C7009, Q179Gas, oil, coal: Ultraviolet Flame Sensor C7012A,C | R4140;BC7000;R4075C,D,E; R4138C,D;FSP5075 | Color: Green |
| R7247C1001 | 2 to 4 sec | Dynamic Self-Check | Gas, oil, coal: Ultraviolet Flame Sensor C7012E,F | R4140, BC7000, R4075C,D,E, R4138C, D, FSP5075 | Color: Green |
| R7247C1019 | 2 sec max. | Dynamic Self-Check | Gas, oil, coal: Ultraviolet Flame Sensor C7012E,F | R4140;BC7000;R4075C,D,E; R4138C,D;FSP5075 | Color: Green |
| R7248A1004 | 2 to 4 sec | None (standard) | Gas, oil, coal: Infrared (lead sulfide) C7015 | R4140;BC7000;R4075C,D,E; R4138C,D;FSP5075 | Color: Red |
| R7248B1028 | 2 to 4 sec | Ampli-Check | Gas, oil, coal: Infrared (lead sulfide) C7015 | R4140;BC7000;R4075C,D,E; R4138C,D;FSP5075 | Color: Red |
| R7249A1003 | 2 to 4 sec | None (standard) | Gas, oil, coal: Ultraviolet (Minipeeper) C7027, C7035 | R4140;BC7000;R4075C,D,E; R4138C,D;FSP5075 | Color: Purple |
| R7476A1007 | 2 to 4 sec | Dynamic Self-Check | Gas, oil, coal: Adjustable Sensitivity Ultraviolet Flame Sensor C7076 | R4140;BC7000;R4075C,D,E; R4138C,D;FSP5075 | Color: Blue |
| R7476A1015 | 2 sec max. | Dynamic Self-Check | Gas, oil, coal: Adjustable Sensitivity Ultraviolet Flame Sensor C7076 | R4140, BC7000, R4075C,D,E, R4138C, D, FSP5075 | Color: Blue |

R7257; R7258; R7259 Flame Safeguard Amplifiers

Solid state, plug-in units allow use of rectification, infrared and ultraviolet flame detections.

- Use with Q518, Q519 and W688A Flame Safeguard multi-burner modules and appropriate flame detector.

Approvals:

Canadian Standards Association: Certified: File No. LR95329-3

Underwriters Laboratories Inc. Listed: File No. MP268, Guide No. MCCZ2

| Product Number | Flame Failure Response Time (sec) | Self Checking | Use With Flame Sensor | Use With Primary Safety Control | Comments |
|----------------|-----------------------------------|-----------------|---|---------------------------------|---------------|
| R7258A1001 | 2 to 4 sec | None (standard) | Gas, oil, coal: Infrared (lead sulfide) C7015 | Q518, Q519, W688A | Color: Red |
| R7259A1000 | 2 to 4 sec | None (standard) | Gas, oil, coal: Ultraviolet (Minipeeper) C7027, C7035 | Q518, Q519, W688A | Color: Purple |

R7289, R7290 Flame Safeguard Amplifiers (for R4795)

Solid state, plug-in units allow use of rectification or ultraviolet flame detection.

- Use with R4795A,D Flame Safeguard primary controls and appropriate flame detector.

Approvals:

Canadian Standards Association: Certified: File No. LR1620-305

Factory Mutual: Approved: Report No. 19608.1

Underwriters Laboratories Inc. Listed: File No. MP268, Vol. 7, Sec. 2

| Product Number | Flame Failure Response Time (sec) | Self Checking | Use With Flame Sensor | Use With Primary Safety Control | Comments |
|----------------|-----------------------------------|-----------------|--|---------------------------------|---------------|
| R7290A1001 | 2 to 4 sec | None (standard) | Gas, oil, coal: Ultraviolet (Minipeeper) C7027, C7035 | R4795A, D | Color: Purple |
| R7289A1004 | 2 to 4 sec | None (standard) | Gas: Rectifying Flame Rods C7004, C7005, C7007, C7008, C | R4795A, D | Color: Green |

FSP5075A1; FSP5075A3 Flame Amplifier Modules



The FSP5075A Flame Amplifier Module is designed to accept a variety of Honeywell plug-in flame signal amplifiers. Depending on the plug-in amplifier model installed, the flame amplifier module can be used with ultraviolet flame detectors, infrared flame detectors, rectifying flame rods or rectifying photocells to provide

Application: Flame Amplifier

Dimensions, Approximate: 4 7/8 in. high x 8 1/2 in. wide x 4 in. deep.
(124 mm high x 216 mm wide x 102 mm deep)

Frequency: 60 Hz

Temperature Range: -40 F to +140 F (-40 C to +60 C)

continuous flame supervision from lightoff to shutdown. Certain flame amplifier models feature **Dynamic Self-Check** or **Dynamic Ampli-Check**® capability. The flame amplifier module also features plug-in load and flame relays as well as an integral terminal strip mounted on its chassis.

- The flame amplifier module amplifier and relay circuitry combine to provide such safety features as safe-start check, safety shutdown and rapid flame failure response time.
- Approval body certifications include Underwriters Laboratories Inc. component recognized, Factory Mutual approved.
- The zinc dichromate finish resists corrosive effects of most industrial atmospheres.
- A hermetically sealed relay model is also available.
- The FSP5075A Flame Amplifier Module is a standard building block in a burner management system.
- It allows the system to meet flame safeguard requirements while adding versatility to the flame detection system.

Approvals:

Factory Mutual: Approved: Report No. 26098

Underwriters Laboratories Inc. Component Recognized: File No. MP268, Guide No. MCCZ

| Product Number | Voltage | Power Consumption | Flame Failure Response Time (sec) | Description | Comments | Used With |
|----------------|---------|--|-----------------------------------|---|-----------------------------|---|
| FSP5075A1 | 120 Vac | 5.0 W running (max); 2.4 W standby. | Reference flame signal amplifier | Flame Amplifier Module, Plastic Encapsulated Relays | Relays Plastic Encapsulated | R7247, R7248, R7249, or R7476 Flame Amplifier |
| FSP5075A3 | 120 Vac | 5.0 W running (max); 2.4 W standby. | Reference flame signal amplifier | Flame Amplifier Module, Hermetically Sealed Relays | Relays Hermetically Sealed | R7247, R7248, R7249, or R7476 Flame Amplifier |

Flame Amplifier Accessories

| Product Number | Description | Used With |
|----------------|---------------------------------------|--------------|
| 32005301-001 | T Filter for Rectification Amplifiers | R7847, R7247 |