THE C7027A, C7035A, AND C7044A DETECT ULTRAVIOLET RADIATION EMITTED FROM ALL FLAMES. THEY ARE USED WITH FLAME SAFEGUARD CONTROLS TO PROVIDE SUPERVISION FOR GAS, OIL, OR COMBINATION GAS-OIL BURNERS.

- The C7027A, C7035A, and C7044A are used with the following:
  - Flame Safeguard Programmers/Amplifiers
    - R4126 and R4127/R7255B
    - R4140/R7249A
    - R4795/R7290
  - Flame Safeguard Primary Controls/Amplifiers
    - R4075C,D,E/R7249A
    - R4138C,D/R7249A
    - R4795/R7290
  - R7023C Flame Detector Relay.

- The C7027A mounts on a 1/2 in. sighting pipe by means of an integral collar.
- The C7035A mounts on a 1 in. sighting pipe by means of an integral collar. A shield protects the sensing tube.
- The C7035A meets outdoor raintight requirements of Underwriters Laboratories Inc., NEMA 3, and NEMA 4.
- The C7044A mounts with a simple, L-screw bracket. Sensing tube enclosed in stainless steel housing.
- The C7044A is suitable for side or end viewing.
- Compact size makes the C7027A and C7044A particularly useful for blast tube mounting.
- Properly installed, the C7027A and C7035A are sealed against pressures as high as 5 psi [34.5 kPa].
- The C7035A ultraviolet sensing tube is field replaceable. The C7027A and C7044A sensing tubes are not field replaceable—use on an economical, throwaway basis.
- Two Minipeeper detectors can be wired in parallel for difficult sighting applications.

### SPECIFICATIONS

**C7027A MINIPEEPER ULTRAVIOLET FLAME DETECTOR**

- DETECTION: Detects ultraviolet radiation only.
- AMBIENT OPERATING TEMPERATURE RATINGS: 0 F to +215 F [−18 C to +102 C], or -40 F to +215 F [−40 C to +102 C], depending on the model.
- MAXIMUM PRESSURE RATING: 5 psi [34.5 kPa].
- MOUNTING: Collar with standard 1/2 in. internal threads for mounting on a 1/2 in. sighting pipe.
- WIRING CONNECTIONS: Two, 6 ft [1.83 m], color-coded, NEC Class 1 leadwires. (One model is available with 24 ft [7.32 m] leadwires.) Rear of detector has a clamp type connector for a 1/2 in. flexible metallic conduit. (Models are available with 1/2 in. internally threaded spud connector instead of the clamp.)
- DIMENSIONS: See Fig. 1.
- REPLACEMENT PART: 129685 Flange Gasket NOTE: The UV sensing tube is not field replaceable.

**C7035A MINIPEEPER ULTRAVIOLET FLAME DETECTOR**

- DETECTION: Detects ultraviolet radiation only.
- AMBIENT OPERATING TEMPERATURE RATINGS: 0 F to 250 F [−18 C to +121 C], or -40 F to +250 F [−40 C to +121 C], depending on the model.
- MAXIMUM PRESSURE RATING: 5 psi [34.5 kPa].
- MOUNTING: Collar with standard 1 in. internal threads for mounting on a 1 in. sighting pipe. (The DIN approved C7035A1064 has 1-1/4 BSPPF threads.)
- WIRING CONNECTIONS: Two, 6 ft [1.83 m], color-coded, NEC Class 1 leadwires. (One model is available with leadwires rated for 400 F [204.4 C], and one model is available with 12 ft [3.66 m] leadwires.) Rear of detector has 1/2-14 NPSM internal threads for connecting to a conduit. (The DIN approved C7035A1064 has 1/2-14 BSPP-F threads.)
- DIMENSIONS: See Fig. 2.
- WEIGHT: 6 oz [0.17 kg].
- REPLACEMENT PARTS: 129808 Flange Gasket.
  129464M Ultraviolet Sensing Tube, -40 F to 250 F [−40 C to +121 C].
  129464N Ultraviolet Sensing Tube, -40 F to +250 F [−40 C to +121 C].

**C7027A AND C7035A APPROvals:**

- UNDERWRITERS LABORATORIES INC. LISTED: File No. MP268; Guide No. MCCZ.
- FACTORY MUTUAL APPROVED.
- DIN APPROVED MODELS: C7027A1056, C7035A1049, and C7035A1064.
FIG. 2—INSTALLATION DIMENSIONS OF THE C7035A, IN in. [mm IN BRACKETS].

C7044A MINIPEEPER ULTRAVIOLET FLAME DETECTOR
DETECTION: Detects ultraviolet radiation only. Housing has 2 openings to permit viewing from either its end or its side. Side viewing is 1/8 as sensitive as end viewing.

TABLE I—FLAME SIGNAL

<table>
<thead>
<tr>
<th>FLAME DETECTOR</th>
<th>BLUE</th>
<th>FLAME SIGNAL AMPLIFIER (purple)</th>
<th>FLAME SAFEGUARD CONTROL(S)</th>
<th>MINIMUM ACCEPTABLE STEADY CURRENT (microamp)</th>
<th>MAXIMUM CURRENT EXPECTED (microamp)</th>
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</thead>
<tbody>
<tr>
<td>C7027 A</td>
<td></td>
<td>R7249A</td>
<td></td>
<td>3-1/2</td>
<td>7-1/2</td>
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<tr>
<td>C7035 A, or</td>
<td></td>
<td>R4075C, D; F; R4138C, D;</td>
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<tr>
<td>R7259 A</td>
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<td>R4150</td>
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<td>R7290 A</td>
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<td>R4795 A, D</td>
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<td>RA999 G, R7023C</td>
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<td>2-1/4</td>
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