The Love Series 8500 Temperature/Process Control provides an impressive selection of features in a compact, economical 1/8 DIN package. Features include on-off, time proportioning, proportional, PI, PD or full PID control — fully programmable from the front panel — or use Self-Tune PID. Inputs are selectable from a variety of thermocouple types including J, K, T, E, N or L, DIN NIST or Ni RTD’s. Output choices include solid state relay, mechanical relay, 5 VDC — ideal for driving an external SSR — or isolated 4-20 mA proportional current. An optional programmable alarm provides a full array of alarm action configurations including high alarm, low alarm and high/low guardband alarm. Manual reset, power-up inhibit and power interrupt reset provide additional alarm flexibility.

A water and corrosion resistant front panel (NEMA 4X, IP65), input fault timer, digital input filter, Self-Tune ramp to setpoint, four password protected security levels and °F or °C display selection are all standard. Entire electronics package is easily field replaceable without wiring changes thanks to the removable front panel.

### MODELS

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>85111-0</td>
<td>Thermocouple</td>
<td>SSR</td>
</tr>
<tr>
<td>85112-0</td>
<td>Thermocouple</td>
<td>5 VDC</td>
</tr>
<tr>
<td>85113-0</td>
<td>Thermocouple</td>
<td>Relay</td>
</tr>
<tr>
<td>85115-0</td>
<td>Thermocouple</td>
<td>4-20 mA</td>
</tr>
<tr>
<td>85121-0</td>
<td>RTD</td>
<td>SSR</td>
</tr>
<tr>
<td>85122-0</td>
<td>RTD</td>
<td>5 VDC</td>
</tr>
<tr>
<td>85123-0</td>
<td>RTD</td>
<td>Relay</td>
</tr>
<tr>
<td>85125-0</td>
<td>RTD</td>
<td>4-20 mA</td>
</tr>
</tbody>
</table>

*When ordering a control to operate contactor or solenoid loads greater than 100 mA, select the SSR output instead of the Relay. If the relay is selected, order part number A-600. R/C snubber

### SPECIFICATIONS

- **Inputs:** Thermocouple or RTD.
- **Display:** Two 4 digit, 7 segment LED; models; 0.3” (7.62 mm) high.
- **Resolution:** 1 degree or 0.1 degree.
- **Accuracy:** ±0.25% of span, ±1 degree.
- **Supply Voltage:** 100 to 240 VAC nominal, +10%-15%, 50-60 Hz, single phase; 132-240 VDC nominal, +10%-20%.
- **Power Consumption:** 5 VA maximum.
- **Operating Temperature:** 14 to 131°F (-10 to 55°C).
- **Memory Backup:** Non-volatile memory. No batteries required.
- **Control Output Ratings:**
  - SSR: 2.5A @ 240 VAC resistive at 77°F (25°C).
  - De-rate to 1.25A @ 130°F (55°C).
  - Relay: SPDT, 10A @ 240 VAC resistive.
  - Alarm Relay: SPST, 3A @ 240 VAC resistive.
  - Switched Voltage (non-isolated): 5 VDC @ 20 mA.
  - Proportional Isolated Current: 0-20 mA, selectable, into 600 ohms maximum.
- **Control Action:** Selectable for Reverse (usually heating) or Direct (usually cooling).
- **Ramp:** One ramp time adjustable from 0 to 100 hours.
- **Isolation:** Relay and SSR outputs: 1500 VAC. 0-20 mA output: 500 VAC. 5 VDC output is not isolated.
- **Weight:** 13 oz (369 g).